Internationalization, Competitiveness Enhancement and Export Performance of Emerging Market Firms: Evidence from Vietnam

Ha Thi Van Pham
Internationalization, Competitiveness Enhancement and Export Performance of Emerging Market Firms: Evidence from Vietnam
Ha Thi Van Pham

Internationalization, Competitiveness Enhancement and Export Performance of Emerging Market Firms: Evidence from Vietnam

Copenhagen Business School
The PhD School in Organization and Management
September 2009
Ha Thi Van Pham
*Internationalization, Competitiveness Enhancement and Export Performance of Emerging Market Firms: Evidence from Vietnam*

1st edition 2009
PhD Series 26.2009

© The Author

ISBN: 978-87-593-8408-4
ISSN: 0906-6934

The Doctoral School of Organisation and Management Studies (OMS) is an interdisciplinary research environment at Copenhagen Business School for PhD students working on theoretical and empirical themes related to the organisation and management of private, public and voluntary organisations.

All rights reserved.
No parts of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage or retrieval system, without permission in writing from the publisher.
ACKNOWLEDGEMENTS

My thesis would not have been completed without the help of many people for whom I wish to express my thankfulness.

I would like to record my gratitude for my principle supervisor, Professor Henrik Schaumburg-Muller, for his supervision, advice, and guidance from the very early stages of this research. Professor Schaumburg-Muller provided me with extraordinary experiences throughout the project and, above all, he offered me unwavering encouragement and support.

It is difficult to overstate my thankfulness for my second supervisor, Professor Bent Petersen. Through his enthusiasm, his inspiration, and his great effort to explain things clearly and simply, he helped to make international business even more exciting. Throughout my thesis journey, he provided encouragement, sound advice, good company, and lots of interesting ideas. I would have been lost without him.

I gratefully acknowledge Professor Dao Hung for his advice, supervision, and practical contributions, which provided me with good networks for my empirical study and a foundation for future connections.

Many thanks also go to Professor Olav Sorensen. I am much indebted to him for his valuable advice on the internationalization discussion, as well as his willingness to use his precious time to read and critique some of my writing. I have also benefited from the advice and guidance of Professor Klaus Meyer. Professor Meyer kindly granted me his time in the early days of my PhD studies, during which he answered some of my more unintelligent questions and read my preliminary paper.

I am grateful to Professors Peter Wad, Peter Gammeltoft, Bo Nielsen and John Kuada for their constructive comments on this thesis. I am also thankful that, in the midst of all of their activities, they agreed to take an active role in my seminars and pre-defence.

I wish to express my warm and sincere thanks to Professor Dorte Salskov-Iversen, who made my research possible by encouraging me to join in several academic conferences and by engaging us in a perpetual dialogue on daily events.

I would also like to acknowledge Professor Annette Risberg for her advice and willingness to revise my clumsy English in the early stages.

Thanks to Søren Jeppesen for the CBDS social meeting, his dry humour about an academic’s life and his great collaboration.
Collective and individual acknowledgments are also owed to my colleagues at Copenhagen Business School and at the National Economics University, whose presence was continually refreshing, helpful, and memorable.

Special thanks to Hoang Xuan Quyen, my Master’s supervisor and later my “big brother”, for persuading me to pursue postgraduate studies and for energetically supporting my work during the write-up stage.

It is a pleasure to express my wholehearted gratitude to my friends – Tay Van Doan, Lieu Vui, Andras, Camilla, Douglas, Yen, Volker, Elizabeth Hodgkin, To Nhat, Van Hoang, Tho Nguyen, Hai Hoang and Jonathan Pincus – for the exhilarating times we spent together in Copenhagen, Hamburg, and the English countryside, and for our endless conversations on Skype and Yahoo. Thank you for always being ready to lend a hand when I needed one.

Finally, I owe countless thank you’s to my family for their love and sacrifice during this long journey. My parents and parents in-law deserve special mention for their inseparable support. They raised me, supported me, taught me, and loved me.

I could never have become what I am today without my dear husband’s caring and love. I owe Huy for being unselfish and never letting his intelligence, passions, and ambitions collide with mine. My little son, Bin, has given me the energy and the incentive to reach my goal. Thank you, my two dearest ones, for constantly reminding me of what is the most valuable in life!
ABSTRACT

The thesis revolves around the internationalization of Vietnamese firms - that is, how the international competitiveness of these firms is enhanced in terms of both upstream and downstream value chain activities and the export performance implications hereof. For Vietnamese firms, as well as for other firms from emerging markets, internationalization trajectories may differ considerably from the internationalization patterns portrayed in classical theories (such as the Uppsala Model) based on observations of the internationalization of firms from Western, developed market economies. Classical theories have primarily focused on firms’ marketing & sales and networking capabilities as levers of internationalization – and less on upstream capabilities, such as manufacturing and auxiliary service competencies. Likewise the situation in other emerging markets many Vietnamese firms are inserted in global value chains (GVCs) governed by multinational buyers. For these firms, manufacturing skills may be of equal - or greater - importance to export performance than the mastering of marketing & sales and networking in foreign markets.

The thesis presents various theoretical perspectives on firms’ internationalization – perspectives that vary in terms of their focus on either upstream or downstream activities (or, the interrelationship of these two types of activities). The thesis tries to fill out the knowledge gap as to which of these theoretical perspectives fit best the trajectories of Vietnamese manufacturing firms involved in exports. In doing so, the thesis also draws on GVC models, entrepreneurial literature, and studies of economic as well as strategic export performance.

Unique survey data covering 226 Vietnamese manufacturers involved in exporting was collected through face-to-face interviews conducted in Hanoi and Ho Chi Minh City. On the basis of these data a set of hypotheses is tested using structural equation modelling as a statistical tool. The empirical study suggests that Vietnamese firms create international competitiveness in relation to both upstream and downstream activities. Furthermore, the study suggests that upstream competitiveness of the sample firms is significantly more attractive in terms of economic export performance (export sales, profitability and growth) than downstream competitiveness. However, when export performance is measured in more far-sighted, strategic terms, there are no significant differences between the two dimensions of competitiveness. The study also reveals some
interesting industry differences: for firms in the “low-tech” textiles & garments industry, upstream competitiveness has greater impact on economic export performance than downstream competitiveness. Conversely, downstream competitiveness results in a higher economic return than upstream competitiveness for firms from the “high-tech” industries of electronics and mechanical manufactures.

In the last part of the thesis, theoretical, empirical, and managerial implications are discussed along with conclusions and suggestions for future research.
4.2.3 Increasing downstream competitiveness via the Internet .............................................. 34
4.2.4 Increasing downstream competitiveness through home country governmental bodies. 36
4.2.5 Increasing downstream competitiveness using networks and alliances ......................... 38
Networks and alliances: conduits for information on opportunities ....................................... 41
4.2.6 Increasing downstream competitiveness using export assistant services ...................... 42
4.3 Links between upstream activities and downstream competitiveness ................................. 44
4.4 Competitiveness and export performance ............................................................................ 45
4.4.1 Export performance measurements................................................................................ 46
4.4.2 Export performance: differing impact of upstream and downstream competitiveness . 46

PART III ............................................................................................................................................ 50

5. EMPIRICAL STUDY .......................................................................................................................... 50

5.1 Measurement process and variable development................................................................. 53
5.1.1 Pilot studies .................................................................................................................... 53
5.1.2 Pre-test examinations ..................................................................................................... 54
5.2 Operationalisation of variables and constructs .................................................................... 55
5.2.1 Dependent variables: Export performance constructs ................................................... 55
5.2.2 Mediated variables: Upstream competitiveness (UC) and downstream competitiveness (DC) constructs ....................................................................................................................... 55
5.2.3 Independent variables .................................................................................................... 56
5.2.4 Control variables ............................................................................................................ 57
5.3 Methodology ........................................................................................................................ 62
5.3.1 Research design and validity conditions ........................................................................ 62
5.3.2 Statistical tools and estimation method .......................................................................... 62
5.4 Data collection ..................................................................................................................... 63
5.4.1 Key techniques and interviewing methods .................................................................... 63
5.4.2 Timeframe ...................................................................................................................... 64
5.4.3 Sampling strategy ........................................................................................................... 66
5.5 Analysis ................................................................................................................................ 67
5.5.1 Data screening ................................................................................................................ 67
5.5.1.1 Non-response bias ................................................................................................... 68
5.5.1.2 Missing data ............................................................................................................ 68
5.5.1.3 Outliers .................................................................................................................... 70
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.5.2</td>
<td>Testing the assumptions of multivariate analysis</td>
<td>70</td>
</tr>
<tr>
<td>5.5.2.1</td>
<td>Normality</td>
<td>70</td>
</tr>
<tr>
<td>5.5.2.2</td>
<td>Homoscedasticity</td>
<td>70</td>
</tr>
<tr>
<td>5.5.2.3</td>
<td>Linearity</td>
<td>71</td>
</tr>
<tr>
<td>5.5.3</td>
<td>Transformation to achieve normality, homoscedasticity and linearity</td>
<td>71</td>
</tr>
<tr>
<td>5.6</td>
<td>Descriptive statistics</td>
<td>72</td>
</tr>
<tr>
<td>5.7</td>
<td>Multivariate statistics</td>
<td>73</td>
</tr>
<tr>
<td>5.7.1</td>
<td>Multicollinearity detection</td>
<td>73</td>
</tr>
<tr>
<td>5.7.2</td>
<td>Assessing measurement model validity</td>
<td>74</td>
</tr>
<tr>
<td>5.7.3</td>
<td>Construct validity</td>
<td>75</td>
</tr>
<tr>
<td>5.7.3.1</td>
<td>Convergent validity</td>
<td>76</td>
</tr>
<tr>
<td>5.7.3.2</td>
<td>Discriminant validity</td>
<td>77</td>
</tr>
<tr>
<td>5.7.3.3</td>
<td>Nomological validity</td>
<td>78</td>
</tr>
<tr>
<td>5.7.3.4</td>
<td>Face validity</td>
<td>78</td>
</tr>
<tr>
<td>5.7.4</td>
<td>Test of common method bias</td>
<td>78</td>
</tr>
<tr>
<td>5.7.5</td>
<td>The mediation effect</td>
<td>79</td>
</tr>
<tr>
<td>5.7.6</td>
<td>Comparison with competing models</td>
<td>79</td>
</tr>
<tr>
<td>5.8</td>
<td>Tests of hypotheses</td>
<td>82</td>
</tr>
<tr>
<td>5.8.1</td>
<td>Basic test of upstream competitiveness</td>
<td>82</td>
</tr>
<tr>
<td>5.8.2</td>
<td>Basic test of downstream competitiveness</td>
<td>83</td>
</tr>
<tr>
<td>5.8.3</td>
<td>Test of upstream vs downstream competitiveness in relation to export performance</td>
<td>85</td>
</tr>
<tr>
<td>5.8.4</td>
<td>Supplemental test of controlled variables</td>
<td>85</td>
</tr>
<tr>
<td>5.8.5</td>
<td>Test of OEM insertion</td>
<td>86</td>
</tr>
<tr>
<td>5.8.6</td>
<td>Test of technology endowment</td>
<td>88</td>
</tr>
<tr>
<td>6.</td>
<td>DISCUSSION AND CONCLUSIONS</td>
<td>91</td>
</tr>
<tr>
<td>7.</td>
<td>IMPLICATIONS AND PERSPECTIVES</td>
<td>95</td>
</tr>
<tr>
<td>7.1</td>
<td>Theoretical contribution</td>
<td>95</td>
</tr>
<tr>
<td>7.1.1</td>
<td>Extending internationalisation theory</td>
<td>95</td>
</tr>
<tr>
<td>7.1.2</td>
<td>Extending the global value chain focus</td>
<td>96</td>
</tr>
<tr>
<td>7.2</td>
<td>Specific context of the empirical contribution</td>
<td>97</td>
</tr>
<tr>
<td>7.3</td>
<td>Implications for firms and management</td>
<td>98</td>
</tr>
<tr>
<td>7.4</td>
<td>Implications for industry</td>
<td>98</td>
</tr>
</tbody>
</table>
# List of Figures

Figure 2.1: Porter’s value chain framework (1985) ................................................................. 10

Figure 3.1: The Uppsala Model: exports and downstream competitiveness ......................... 18

Figure 3.2: The Inward-Outward model: export facilitation through import activities .......... 21

Figure 3.3: The Technology Import Model ............................................................................... 23

Figure 3.4: The GVC Model ...................................................................................................... 24

Finally, the control variables (GVC insertion, firm size, ownership structure, capital structure, and industry) are indicated in the blue box in the upper right corner .............................................. 47

Figure 4.1 Conceptual framework of the study ........................................................................ 48

Figure 4.1a: Hypothesized relationships between export facilitating activities, upstream-downstream competitiveness and economic export performance ................................. 48

Figure 4.1b: Hypothesized relationships between export facilitating activities, upstream-downstream competitiveness and strategic export performance ............................................. 49

Figure 5.1: Conceptual models – elaboration of constructs, variables and indicators .......... 60

Model 5.1a: Dependent variable: economic export performance ............................................ 60

Model 5.1b: Dependent variable: strategic export performance .............................................. 61

Figure 5.2: Competing model 1 – two export performance constructs as reflective indicators ...... 80

Figure 5.3: Competing model 2 – recursive paths between upstream competitiveness and downstream competitiveness .................................................................................................. 81

Figure 9.1: Graphical detection of outliers .................................................................................. 132

Figure 9.2 Competing model 2 with recursive paths between upstream competitiveness and downstream competitiveness constructs (dependent variable: strategic performance) ........... 133
List of Tables

Table 5.1: Timeframe and tasks in the survey process ................................................................. 65
Table 5.2: Random sample selection and response rate .............................................................. 66
Table 5.3: Descriptive statistics of the sample ........................................................................... 72
Table 5.4: Modelling process and goodness of fit improvements ............................................. 75
Table 5.5: Convergent validity of indicators to constructs ....................................................... 76
Table 5.6: Cross-loading discriminant validity test ................................................................. 77
Table 5.7: Result of common method bias test ......................................................................... 79
Table 5.8: Regression weights and significances of hypothesis testing for model A ............ 83
Table 5.9: Regression weights and significances of hypothesis testing for model B .......... 84
Table 5.10: Regressions of controlled variables on export performance ............................... 85
Table 5.11: Comparison of OEM versus independent exporters for model A ..................... 87
Table 5.12: Comparison of OEM versus independent exporters for model B .................... 87
Table 5.13: Comparison of high-tech exporters versus low-tech exporters for model A .... 89
Table 5.14: Comparison of high-tech exporters versus low-tech exporters for model B ..... 89
Table 9.1: T-test of non-response bias on some critical variables ........................................... 127
Table 9.2: Descriptive statistics on missing data ...................................................................... 128
Table 9.3: Variance t tests of missing data on some critical variables .................................... 129
Table 9.4: Descriptive statistics on normality ......................................................................... 130
Table 9.5: Independent samples test on homoscedasticity ...................................................... 131
Table 9.6: Multicollinearity detection ....................................................................................... 134
Table 9.7: Characteristics of different fit indices demonstrating goodness of fit across different sample sizes and variables ................................................................. 135
Table 9.8: Examination of construct validity ......................................................................... 136
Table 9.9: Standardized total effects – Model A ................................................................. 137
Table 9.10: Standardized total effects – Model B ................................................................. 138
PART I

1. INTRODUCTION

1.1 Research topic and aim of study

Due to its impressive economic growth and its ability to attract foreign direct investment, Vietnam is representative of emerging market economies. Vietnam has made considerable economic progress since the doi moi (renewal) reform programme was launched in 1986, particularly with regard to international trade and foreign policy reform. Since 2000, the annual growth rate has averaged 7.5% – one of the highest in the region. International trade and inflows of foreign direct investment, mainly into export-oriented manufacturing, are viewed as spectacular breakthroughs that strongly support the integration of Vietnam in the global economy. Many emerging economies, Vietnam included, have been able to capitalize on the comparative advantages of abundant and cheap labour resources.

Vietnamese firms seem to be able to exploit the opportunities that were created when the country opened up for greater involvement in the international economy (see next section), with firms grasping the chance to develop and establish themselves in the competitive environment of the global market. However, some competencies and resources – such as world-class manufacturing processes, product know-how and capital – are in short supply among local firms. To gain international competitiveness, it is imperative for firms in these emerging economies to develop strategies overcoming these constraints, spot international opportunities, and exploit them in profitable ways.

Given the dynamic emerging economy context, this thesis aims to explore the different internationalization paths taken by Vietnamese firms. In particular, it is the aim of the research to examine the relationships between the different internationalization paths, the creation of international competitiveness, and export performance implications – economic as well as strategic. The final goal is to provide valid, management-level recommendations as to how to create competitive advantages in the global marketplace - thereby contributing to higher growth and profitability of Vietnamese firms and, in turn, more jobs and better income to Vietnamese people.
1.2 Background – The dynamic, emerging economy of Vietnam

Vietnam’s recent integration with the world economy is a spectacular phenomenon, which has moved in tandem with local firms’ acquisition of foreign knowledge and technological upgrades. The early stages of this world economy integration process were mainly achieved through unilateral reductions of barriers to trade and investment. The opening of the Vietnamese economy in recent years follows the introduction of numerous bilateral, regional and multilateral trade and investment agreements. The implementation of the ASEAN Free Trade Area, the US Vietnam Bilateral Trade Agreement, the bilateral cooperation with EU and, most recently, Vietnam’s membership in the WTO have exposed Vietnamese firms to increased competition and supported development of new, market-oriented legal and judicial regimes. More than ever before, Vietnamese firms are apt to absorb external resources, technology and know-how to improve their competitive positions.

Due to the movement of the Vietnamese economy towards global market integration, economic growth has been high. From 1995-2007, annual GDP growth rates averaged 7.5% and exports soared to 21.3%. As a result, the ratio of exports to GDP climbed from 26 % to 62 % (World Bank 2007). Even though there was a slight trade deficit during this period of accelerated GDP, the deficit was under control and more than offset by remittances, ODA disbursements and FDI inflows. Vietnam’s integration with the global economy has been accompanied by private sector development and foreign investment. In 2005, foreign investments amounted to 16% of Vietnam’s GDP, up from 6% in 1995. The contribution of the private sector (both domestic and foreign firms) doubled from 1998 to 2005 (World Bank 2007). Based on General Statistic Office data (GSO 2004), cumulative FDI rose from 28 projects for a total of 140 million dollars in 1988, to over 700 projects and 5.5 billion dollars in 1993, to 6,164 projects for roughly 60 billion dollars by 2004. FDI inflows were unusually large in the mid-1990s. With commitments almost 10 percent of GDP between 1994 and 1997, Vietnam became then the top recipient of FDI among all developing countries and transition economies (measured in relative terms). Furthermore, high levels of domestic investment, together with growing imports of inputs for export-oriented production, help facilitate the country’s market economy transition. As a remarkable indication of this transition, the European Commission granted Vietnam “Market Economy Status” in 2006.
The World Bank’s 2007 report shows that Vietnam’s international economic integration process resembles that of China more than that of other ASEAN countries. However, it also reveals an insufficient integration of domestic companies with global value chains. Total factor productivity is growing rapidly across the board, but growth is faster in foreign-lead firms than in domestic firms, regardless of their ownership. Domestic firms can benefit from knowledge spill-over from foreign firms, but low added-value activities, revenues and outright imitation seem to be more important channels of transmission than business-to-business transactions. The equitization of State-Owned Enterprises (SOEs), despite its limitations, appears to be contributing to productivity gains and inducing more “arm’s-length” relationships with government authorities (World Bank 2006).

Vietnam’s reform process has also dealt with industry subsidies and preferential treatment of certain companies – including the phase-out of special treatments for SOEs. During the first decade of the doi moi reform, SOEs accounted for a greater portion of growth in the industrial sector. The dominance of the state-controlled sector has been blamed for the extreme underinvestment in the private sector. Only when the SOE operations were proven ineffective, as highlighted by the more severe competition from abroad, did the private sector become the default alternative for further economic development (Kokko and Sjöholm 2005). Even though Vietnam’s SOEs stopped receiving direct support from the government in the early 1990s, the larger SOEs still had privileged access to credit from state banks, which allowed them to cover financial problems caused by operational deficiencies. Although the data are fragmented, Kokko and Sjöholm observed that “the national system is still struggling with the overhang of nonperforming loans from this period. Other state firms focused on lobbying for continued protection” (Kokko and Sjöholm 2005: 154).

Vietnam’s policies for private enterprise have undergone tremendous changes in recent years. The Vietnamese media reports that the private sector’s share of total investment increased from 20% in 2000 to 27% in 2003 and that private firms created 1.6 to 2.0 million new jobs during this period (Vietnam Net 2004, VN Express 2004). The Vietnamese reform process has also dealt with the transformation from a centrally planned system to a market-oriented economy under socialist guidance (Förde 1997). Under the previous command economy, the business activities of domestic and international Vietnamese firms primarily focused on production
without a strategic focus on competitiveness enhancement. Clearly, Vietnamese firms lacked knowledge about market economics and management, especially in marketing and sales, and Vietnamese business managers had no incentive to work on opportunity recognition and international market orientation (Napier 2005). The movement towards a market economy has prompted Vietnamese firms to change their way of doing business, especially on the international front.

Prior to the economic reforms, the international business activities of Vietnamese firms were arranged by the authorities in coordination with other socialist governments in the Soviet trading block. The collapse of the Soviet Union led Vietnam to liberalize foreign trade in 1989, creating a more open Vietnamese economy (Nguyen et al. 2006). This has pushed Vietnamese firms to actively search for new international business partners in order to achieve the success and growth that they could not attain under the Soviet system. This breakthrough also resulted in a dramatic change in the way Vietnamese firms conduct international business. Instead of focusing on production and relying primarily on comparative advantages, such as abundant land and labour sources, Vietnamese firms are now urged to implement international strategies that facilitate their international engagement and upgrade their competitive advantages. Although they are still confronted with some constraints in terms of technology, know-how, expertise and knowledge about foreign markets (Phan 2003), firms are learning ways to build up competitive advantages and integrate themselves with world markets. This process has created many successful firms and wiped out others. A three-round survey of private firms conducted by the Institute for Labour Studies and Social Affairs (ILSSA) found an annual exit rate of over 15% in the early 1990s, which has declined to less than 10% in recent years (Kokko and Sjöholm 2005). However, the rate is much higher among SOEs, of which only 50% were still functioning in April 1995. Since 2000, the survival rate of SOEs has increased by 67% (World Bank 2006).

On the firm level, Vietnamese entrepreneurs have been quite successful, with many of them receiving awards for their efforts. In November 2007, the Association of Southeast Asian Nations (ASEAN) Business Advisory Council recognized 12 firms in the ASEAN region as the “Most Admired ASEAN Enterprises”; of these, three were Vietnamese.
Although emerging market firms, such as the Vietnamese, often are perceived as operating in the industrial scene of apparently hopeless drawbacks, difficulties and inadequacies, these firms have successfully integrated into global markets without going through all the steps that incumbents had to endure. Therefore, it is interesting to know how firms in these emerging economies can link up with more advanced firms to acquire knowledge, technology, and market access – important factors that would otherwise be beyond their limited resources.

1.3 Research gaps and RQs

For many years the research on the internationalization of firms was contextualized in mature markets such as the US, Western Europe and Japan (Carlson 1974, Johanson and Wieldersheim-Paul 1975, Johanson and Vahlne 1977/1990, Bell 1995, Knight and Cavusgil 1996, Morgan and Katsikeas 1997, McAuley 1999, Cummins et al. 2000). With the emergence of the global value chain (GVC) literature in the early 1990s (e.g. Gereffi 1994, Humphrey and Schmitz 1995) the focus switched to internationalization of firms in emerging economies, such as Mexico, China, Thailand, the Philippines and Vietnam. In this stream of literature the internationalization of firms in emerging economies, such as the Vietnamese, is portrayed quite differently from the internationalization of firms in mature economies. The latter type of internationalization is presented as an export-related learning process where the driving – or impeding – factor is experiential foreign market knowledge (Johanson and Wiedersheim-Paul 1975, Johanson and Vahlne 1977), which enables the exporting firm to conduct downstream value chain activities (Porter 1985) - like marketing, sales, and customer servicing - as efficiently as local competitors. In contrast, the internationalization of emerging economy firms has been associated with insertion in GVCs (Gereffi 1999, Schmitz and Knorringa 2000, Humphrey and Schmitz 2005). For these firms, the acquisition of downstream-related capabilities – notably marketing & sales – plays a diminutive role since the (Western) “lead firm” of the GVC is the immediate key customer and the “gate keeper” to foreign markets. The creation of downstream cost and differentiation advantages (via the modification of products to comply with local preferences, marketing/branding, sales and services) is basically left in the hands of the GVC lead firm. Nevertheless, recent empirical studies on emerging market firms show that the successful firms are those that pursue first-mover advantage over other domestics firms as they can exploit opportunities in relation to both upstream and downstream activities (Morris and Lewis, 1995, Ardichvili et al. 2003, Ventkatamaran 1997, Choi and Shepard 2004,

Hence, with its emphasis on upstream activities the internationalization of emerging market firms as portrayed in the GVC literature is quite different from traditional internationalization process literature – and presumably also much more realistic. Still, the GVC literature has little to tell about the performance implications of the two contrasting internationalization paths – the downstream-oriented learning path and the upstream-oriented OEM (Original Equipment Manufacturer) path. Are emerging market firms better off following the “traditional” path of independent internationalization in which firms gradually build up their own distribution channels as they learn about the foreign customers? Or is this path basically an anachronism of the past, as the increasingly globalized marketplace makes GVC insertion of emerging market firms the only feasible – in the meaning of “profitable” - internationalization path? These questions seem basically unanswered – also in the GVC-oriented studies that have focused on the internationalization of Vietnamese firms (Hill 2000, Nadvi and Thoburn 2004, Neupert et al. 2006, Thomsen 2007).

Studies of Vietnamese firms’ insertion in GVCs are mainly dealing with the question of distinguishing between potential winners and losers (Nadvi and Thoburn 2004, Thomsen 2007). By mapping Vietnamese firms’ changing position in global industries, Nadvi and Thoburn (2000) explore the various global challenges to Vietnamese firms and the work force. One aspect of the winners and losers game is the ability of state-owned enterprises (SOEs) to link up to GVCs of global buyers. In contrast to the SOEs, small and medium sized private firms often supply smaller regional traders, operate under less favorable working conditions, pay lower wages, and employ more ‘marginalized’ workers. Studying the private owners of SMEs in the textile and garment industry, Thomsen (2007) pays special attention to their ethnicity, geographical origin, and their choice of location in Southern or Northern Vietnam. The author finds that GVC entry barriers are not exclusively erected by global buyers but also due to the institutional context of the country (Vietnam) in which the suppliers are located. Furthermore, Thomsen’s study points out that the establishing of business relationships and the resulting accessibility to GVC and global markets of these SMEs to a significant extent depends on the background of the owners. Hence, Thomsen identifies four, different segments
of owners; namely Vietnamese in Hanoi, Vietnamese-Chinese in Ho Chi Minh city, Vietnamese of northern origin settled in Ho Chi Minh city, and Vietnamese of southern origin settled in Ho Chi Minh city. In the study by Kent et al. (2006) the authors extend earlier work examining challenges faced by private, export-oriented SMEs compared to SOEs. Major challenges of SOEs are related to effective management of production processes and to supplier coordination. In contrast, SMEs are struggling with problems related to export market differences, general business risks, and logistics. Another management challenge of the exporting SMEs is to overcome the numerous export obstacles, not at least in relation to the US market. On the home front the SMEs are suffering from an inefficient SOE sector, unfavorable or deliberately discriminative private sector regulation and weak market and finance institutions in general (Hill 2000). This research challenges the “export pessimism” school by emphasizing that the government industrial policy in fact was on the right track: By imposing “realistic” exchange rates and low wages, the government enables exporters to source at favorable prices and thereby facilitating export.

Another identified research gap is the neglect of management’s role in terms of managerial choice, strategy and intentionality in internationalization studies. Classical research on firms’ internationalization (Johanson and Wiedersheim-Paul 1975, Johanson and Vahlne 1977) does not emphasize, or pay much attention to, discretionary managerial decision making. In the internationalization process model, the driving factors of international expansion are path-dependent behaviour and the gradual accumulation of experience (Johanson and Vahlne 1977). The classical approach basically ignores strategic intent and other aspects of managerial decision making (Hutzschenreuter et al. 2007: 1057). As stated by Hutzschenreuter et al., “…the focus of the internationalization literature has been, to a great extent, on the incremental explanations that emphasize path dependencies and on explanations that emphasizing external factors (institutional and selection forces) which both downplay the role of managerial discretion in internationalization” (2007). Therefore, this study elaborates on internationalization by analyzing the effects of managerial intentionality in terms of strategic choices as to whether upstream or downstream competitiveness should be pursued with the aim of enhancing export performance.
With these research gaps in mind this thesis addresses the following three research questions:

- Are emerging market firms creating international competitiveness mainly in relation to upstream or downstream activities, or both?

- How do emerging market firms create international upstream and downstream competitiveness?

- Do emerging market firms with international competitiveness in upstream activities perform better or worse than those with international competitiveness in downstream activities?

### 1.4 Delimitation and context specification of the study

Internationalization strategies and performance are examined in relation to firms from one specific emerging economy, namely the Vietnamese. This specific context was chosen for, at least, two reasons: First, the author is a native of the Vietnamese emerging economy. As such, I am benefitting from having deep insights into the business community of this economy. Second, as already mentioned the internationalization of emerging market firms is an under-researched field.

Although the importance of the service industry is recognized this study concentrates on manufacturing firms for three reasons. First, the complexity of the observed phenomenon requires a consistently narrow focus. Second, a registered database covering the international activities of manufacturing firms is available, which is the only resource that has a unique survey of firms’ international upstream and downstream strategies. Third, the manufacturing sector represents the bulk of exports – the area that is the focus of this study.

### 1.5 Thesis structure

The thesis is divided into four parts including seven chapters:

Part I (including chapter 1) introduced the research topic and accounted for the context of the study – the emerging economy of Vietnam. Subsequently, research gaps of extant literature in
relation to the general topic – the internationalization of emerging market firms – were identified. Research questions alluding to these research gaps were indicated and the delimitations and the specific context of the study were outlined.

Part II (including chapters 2, 3 and 4) develops the theoretical and conceptual framework of the thesis, including an account for core concepts used in the study and the derivation of testable hypotheses. Specifically, Chapter 2 deals with the key concepts of the value chain in relation to upstream and downstream activities, international competitiveness, export performance, and international entrepreneurship. Chapter 3 reviews internationalization theories, while chapter 4 derives testable hypotheses and summarize these in a conceptual framework.

Part III (including chapters 5, 6 and 7) reports the empirical study including research design, analysis, findings and discussions. Chapter 5 is devoted issues of methods, tests of hypotheses, and the main findings. Chapter 6 discusses the findings. Chapter 7 accounts for the theoretical and empirical contributions of the thesis, discusses the implications to company managers and industry policy makers and, finally suggests further research avenues.

Part IV contains references and appendices.
2. DEFINITION OF KEY CONCEPTS

In this chapter, some key concepts are outlined: (i) upstream and downstream value chain activities, (ii) international competitiveness, (iii) entrepreneurship and first mover advantages, and (iv) export performance. The key concepts are used extensively in the ensuing chapters and are important to the thesis’ analytical framework.

2.1 Upstream and downstream value chain activities

As indicated in the previous chapter the study’s unit of analysis is exporting, manufacturing firms in Vietnam. However, since one of the primary aims of the study is to explore how these firms’ international competitiveness and, in turn, export performance is contingent on upstream and downstream activities, respectively, it is necessary to make clear what is meant by these two types of activities. Michael Porter’s value chain template (Porter 1985) will be used for this clarification. In 1985, the value chain concept was introduced by Michael E. Porter as a benchmarking tool for companies (Porter 1985). Porter identified nine basic activities through which a company may generate value and, hopefully, above-average margins.

**Figure 2.1: Porter’s value chain framework (1985)**
Of the nine value chain activities presented in Figure 2.1, five were distinguished as primary, while the remaining four were classified as supporting or back-office activities. To the extent that the primary activities are sequential, they can be subdivided into upstream and downstream activities (Almeida and Bloodgood 1996, Kuada and Sørensen 1999). According to the value chain framework (Porter 1985), upstream activities include inbound logistics and operations, while downstream activities include marketing, sales and service. Outbound logistics may belong to either category. The same is true for procurement depending on for which aspects of the value chain the products and services are procured. In this thesis, procurement (or sourcing) is considered an upstream activity; so is also technology development (R&D).

The activities encompassed by a value chain are, by definition, governed by a focal firm, in casu a Vietnamese firm. Production inputs, such as intermediate goods and back-office services that are purchased on an arm’s-length basis are not part of the focal firm’s value chain. However, whether inputs from suppliers that enjoy juridical independence, but whose activities are closely coordinated with those of the focal firm, make up part of the value chain of the focal firm is less clear. For example, one can question whether employees of an IT service provider should be included in the value chain of the client firm if those employees are working full-time on the premises of the focal firm. Conversely, if the focal firm is a contract manufacturer (or IT service provider) only catering to one client, is it part of the client firm’s value chain? In other words, the delineations, or boundaries, of the value chain are not straightforward.

Furthermore, Porter introduced the value chain as a generic framework, which in theory should be an analytical tool applicable to companies across different industries and business sectors. However, it essentially pertains to traditional, manufacturing firms, characterized by upstream and downstream flows of physical goods.\(^2\)

---

1 Operations consist of component fabrication, assembly fine-tuning, testing, and maintenance.

2 The value chain is not as applicable to service firms, such as trading companies, banks, consulting firms and telecommunication firms, as it is difficult to identify distinct production sequences for these companies. For these firms, value creation is more a result of reiterative and cyclical production flows. Stabell and Fjeldstad (1998), among others, have pointed out the sector or industry specificity of “value creation logics”. As these chains are fundamentally different from traditional value chains, Stabell and Fjeldstad suggest “value shops” and “value networks” as value creation logics applicable to such industries as consulting and banking. However,
For reasons of simplicity, this thesis sticks to the (long-linked, Thompson 1967) value creation logic of the value chain, though with the functions of R&D and procurement included in the primary upstream activities. The focal Vietnamese firms are assumed to comprise both upstream and downstream activities. Even when the end-users are completely unknown to the Vietnamese firm, the firm is still performing downstream activities in relation to the intermediary firm(s). In other words, certain value chain activities (such as downstream activities) of Vietnamese firms are not assumed away, even though they make up part of global commodity chains (Gereffi 1994), global production networks (Sturgeon 2000, Coe 2004), or global value chains (Gereffi and Schmitz 2004, Kaplinsky and Morris 2001).

Some confusion as to which firms conduct upstream and downstream activities may arise in relation to the global value chain (GVC) concept. GVCs usually include several value chains making up a “value system” (Porter 1985) across a number of vertically integrated firms operating in different industries. Hence, the buyer-led GVC is governed by a (global) wholesaler and/or retailer exercising supply chain management in relation to contract manufacturers and raw material producers further up the global value chain. The retailer/wholesaler handles the downstream activities in relation to the end-users (households and/or industrial buyers), whereas the upstream activities are conducted by the contract manufacturers and raw material providers. Although the two latter suppliers do not undertake retail or wholesale activities (i.e. sales and marketing in relation to end-users), they still have to sell and market their products to the lead buyer (retailer/whole-seller) and thus – at least to some extent – carry out downstream activities.

This thesis uses a simple model of the international (Vietnamese) firm in which inputs are procured, transformed through the firm’s operations, and then marketed and sold in international markets. Upstream international activities therefore break down into two major categories: procurement (used interchangeably with sourcing and purchasing) of materials, machinery, licensees, and services from abroad; and operations (used interchangeably with

\[\text{since this study focuses on traditional manufacturing firms, Porter’s original value chain concept is highly applicable as a basic template, although it is acknowledged that other “value creation logics” may be more appropriate in relation to non-manufacturing firms.}\]
manufacturing), including servicing when part of operations. Downstream international activities consist of those activities aimed at marketing and selling the firm’s products abroad as well as after-sales services. This definition does not address downstream procurement. Since the focal firms in this thesis are not trading and distribution firms, but firms that develop and market their own product ranges, it may be assumed that very few products are purchased for unprocessed resale. Should such activities be encountered, they would be defined along with other procurement activities as upstream activities.

### 2.2 International competitiveness

A firm can achieve international competitiveness through either upstream or downstream activities, or through a combination of both. Internationalization process theory has mainly focused on downstream activities as a source of international disadvantage (Johanson and Wiedersheim-Paul 1975, Johanson and Vahlne 1977). For example, the “psychic distance” concept (Hallén 1978) indicates that reduction or elimination of the psychic distance disadvantage vis-à-vis local competitors or more internationally experienced firms can be an issue. In other words, an exporter can usually only hope to be on par with local competitors in terms of downstream activities and not obtain superiority. At the same time, an exporter’s competitive advantage originates from its upstream activities. It is likely, but not certain, that international competitiveness implies good performance in terms of earnings and return on assets. By definition international competitiveness is a relative term: the term tells something about how a firm perform relative to other incumbent firms within an industry. However, the attractiveness of industries in terms of profit levels and returns to the capital invested in the industry differ significantly (Porter 1980, Rumelt 1991) and in some industries—particularly those in which competition is close to perfect - competitiveness does not translate into good financial performance.

Furthermore, in this study international competitiveness is associated with competitive advantage rather than comparative advantage. The latter is connected to competitiveness of countries rather than firms. The (international) competitiveness of a firm is seldom only based on comparative advantages (Porter 1990), in particular not sustainable competitive advantage. Only in those rare cases where single firms have obtained privileged access to a country’s

---

3 In saying this, we disregard the positive country-of-origin effects that some exporting firms accrue due to customers preferring products imported from certain countries over products of local producers.
natural resources (e.g. through concessions granted by the government) may comparative and (firm-specific) competitive advantage coincide. Hence, in this study international competitiveness is defined as advantages possessed by a certain firm over other firms in an industry that goes across countries. The firm-specific advantages (or, ownership advantages, cf. Dunning 1980) may consist of cost leadership or differentiation advantages (Porter 1980) and is based on some proprietary resources held by the focal firm.

In general, the business environment in the Vietnamese export industries is fairly competitive, with many manufacturers clustering together in specialized industrial districts (Kokko and Sjöholm 2005). In such environment one would expect very rapid diffusion of any competitive advantage that might emerge. Hence, competitiveness would be a very temporary phenomenon - hardly surviving long enough to imprint above-normal export performance (see section 2.4 below). In other words, in order to transform into superior export performance international competitiveness of a firm has to be sustainable (Barney 1991), or at least prevail long enough to make a difference on the bottom line. In this study, sustainable international competitiveness is associated with two particular sources: namely international entrepreneurship and first-mover advantages. These two concepts connect international competitiveness with (superior) export performance inasmuch as they can explain the occurrence of inimitability of advantages among Vietnamese manufacturing firms; or more precisely, inimitability during a period of time long enough to create variety within an industry in terms of export performance. The two concepts will be accounted for in the next section.

2.3 International entrepreneurship and first-mover advantages

To succeed in foreign markets, firms take advantage of scarcity, the immobility of know-how and imperfections in the technological market to spot international market opportunities before others and consequently appropriate world-class technology. The industrial and organizational economics and resource-based views of competition also emphasize pioneer or first mover status as a relevant determinant of competitive advantage. Generally, early entrants have the possibility to internalize advantages that might be difficult for later entrants to appropriate (Kerin et al. 1992, Lieberman and Montgomery 1988, Mascarenhas 1992). Patterson defines a first mover as “an organization which is first to employ a particular strategy within the context of a specific scope” (1993, p. 760). Lieberman and Montgomery (1988) suggest that first-mover advantages are best measured in terms of a firm's ability to earn positive economic profit. The
three ways to achieve a first-mover advantage are: attain technological leadership, pre-empt scarce assets, and increase buyer switching costs (Lieberman and Montgomery 1988). Technological leadership represents the potential for a company to gain an advantage by capturing and internalizing technological superiority, including harnessing research and development, and garnering patent abilities. This leadership contributes to an innovation-experience effect: as a company becomes more experienced, it uses innovation to produce output at a lower production cost (Porter 1985). From a resource-based view, technological leadership constitutes a firm-level resource that is idiosyncratic to the firm, and one that is immobile and inimitable. Pre-emption of scarce assets can include being the first to purchase input factors and state-of-the-art technology, and then invest in plant and equipment. A first mover could acquire such assets by having superior information or by purchasing assets at prices below those that will prevail later in the evolution of the market.

2.4 Export performance

As described above a firm’s international competitiveness only translates into superior export performance when two conditions are fulfilled: First, the industry in which the focal firm operates offers economic rent opportunities. In other words, the industry is not a completely unprofitable, “sunset” industry. Second, the focal firm’s competitive advantage – e.g. created through entrepreneurship and first-mover advantages - is sustained long enough to ensure good export performance. But what exactly is meant by “export performance”?

In general, export performance is seen in the literature as a multi-faceted, multidimensional construct that cannot be captured by one or a few items or variables. There is less agreement among scholars about the appropriate unit of analysis for measuring export performance. Early research tended to measure export performance in the foreign markets as a whole, using studies in which managers were asked to assess the “average” or “aggregated” performance for serviced export markets altogether. More recently, scholars have convincingly argued that export performance can only be measured in a meaningful way by taking a specific export markets or ventures as the unit of analysis (see e.g. Cavusgil and Zou 1994, Lages et al. 2005, Diamantopoulos and Kakkos 2007). In the present research context, the latter approach may make sense in relation to export performance of independent exporters, but it makes less sense when applied to captive exporters. The problem is the difficulty of finding a common unit of analysis on which export performance should be measured. Whereas the obvious unit of
analysis for independent exporters is the individual export market or venture, for captive exporters it is the global buyer (customer, client). In this study, therefore, the conventional unit of analysis – the export performance of the company as a whole – is used.

The other key question we need to address is which facets or dimensions of export performance are relevant (or requisite) for incorporation into this study. The discussion in the literature is basically concerned with two dichotomies that overlap to some extent. One dichotomy is between objective (monetary, financial, quantitative) and subjective (perceptual, psychic, qualitative) measures. The other is between economic and strategic measures. A certain overlap appears in that some economic, financial and strategic measures are usually perceptual. However, this study emphasizes the differences, rather than the similarities, between the two dichotomies. The objective-subjective dichotomy pertains to methodology in general and to scales in particular. The economic-strategy dichotomy is about different company objectives, including performance in the short term versus the long term, and export efficiency versus effectiveness.

2.5 Chapter summary

In this chapter concepts that are key to the analysis of the thesis have been explained. It is essential to distinguish between upstream and downstream value chain activities since a basic contention of this study is that internationalization theories (see next chapter) predominantly have focused on downstream activities and less on upstream. Furthermore, it was emphasized that international competitiveness is a relative term in contrast to export performance; relative in the sense that a firm may be very competitive and therefore do better than other incumbents, but still not perform well from an investor’s/owner’s perspective. In other words, international competitiveness does not automatically translate into good export performance. Also, first-mover advantage and international entrepreneurship are considered indispensable for an understanding of international competitiveness as based on sustainable competitive – and not comparative – advantage. Usually, international competitiveness of a firm cannot rest only on comparative advantage of the home country simply because this advantage is available to other local firms as well.
3. INTERNATIONALISATION THEORIES

Woven together in different combinations the key concepts outlined in the previous chapter make up the basic constituents of theories of firms’ internationalization. Most, if not all, internationalization theories are descriptive rather than prescriptive: they aim to explain why and how firms internationalize, but hardly how firms should internationalize given certain contingencies. However, most theories indicate – explicitly or implicitly - in relation to which value chain activities (upstream or downstream) firms’ international advantages – or disadvantages – prevail. Among numerous internationalization theories offered by extant literature four theories – or approaches – have been selected on the basis of two criteria: commonality in terms of their potential relevance to emerging market firms and divergence in terms of different emphasizes as to whether international competitiveness (or the opposite) of these firms primarily are related to upstream or downstream value chain activities. Hence, four internationalization approaches are teased out: (1) the learning approach, (2) the inward-outward connection approach, (3) the technology import approach, and (4) the global value chain approach. The four approaches are presented four distinctively different theories. In reality, the theories are resulting from an evolutionary development. Thus, the inward-outward approach grew out of the learning approach and may be seen as an extension. Similarly, the GVC approach is founded on elements of the technology import approach. It is also important to note that the originators of the traditional learning approach of the Uppsala School (Johanson and Vahlne 1977) later on – and in several rounds – have introduced new approaches to firms’ internationalization, pointing at new driving factors and heuristics of the internationalization process (Johanson and Vahlne 1990/2003/2006, Vahlne and Johanson, Forthcoming).

3.1 The learning approach and the Uppsala Model

The organizational learning perspective suggests that firms can acquire local knowledge and develop new organizational capabilities internally through the incremental accumulation of experience in new markets (Johanson and Vahlne 1977). Of the many internationalisation process models, the “Uppsala Model” (Carlson 1974, Johanson and Wieldersheim-Paul 1975, Johanson and Vahlne 1977/1990) stands out as the most influential model of firms’ internationalisation processes. The basic idea of the Uppsala Model is that internationalisation activities occur incrementally and revolve around market learning and commitment. The concept of market commitment includes both the amount of resources committed and the
degree of commitment. Foreign market commitment refers to the difficulties entrant firms face in finding alternative uses for resources in other markets. Over time and through experience – primarily through the acquisition of foreign market knowledge – firms increase their foreign market commitment. Firms improve their foreign market knowledge through an initial expansion at a low risk, e.g. via indirect exports to “psychologically close” markets.

Other firm internationalisation models state that internationalisation is incremental, with the different stages resulting from changes in the attitudes and behaviours of company managers (Bilkey and Tesar 1977, Czinkota 1982, Reid 1983, Cavusgil and Naor 1987). These models emphasize the role of managers in terms of attitude and perception, which in turn influence the step-by-step involvement in foreign markets. This results in a pattern of evolution – at first, managers having little interest in international market, but later they pursue active expansion into more challenging and unknown markets. In this way, the firm becomes increasingly committed to international growth.

**Figure 3.1: The Uppsala Model: exports and downstream competitiveness**

![Diagram showing the Uppsala Model: exports and downstream competitiveness](image)

Source: Own made
Both streams of research – the Uppsala Model and the “innovation-related” models (Andersen 1993) – conceptualize internationalisation as an incremental process involving a varying number of stages. This conceptualization has been widely used as the basis for much empirical research around the world. In many instances, the empirical data support the notion that firms often internationalize like "rings in the water", trying to gradually gain market knowledge over time, thereby reducing uncertainty and the risk associated with each market.

The Uppsala Model focuses on firms’ export activities (rather than import activities) and how the conduct of these activities gradually improves competitiveness in relation to downstream value chain activities (see Figure 3.1). International competitiveness in relation to upstream activities is only implicitly assumed in this model. The upstream activities of firms fall outside the “boundary assumptions” of the Uppsala Model (Andersen 1993), but it seems acceptable to assume that export firms possess some ownership advantages (Dunning 1977/1981/1988ab) in relation to design, procurement, logistics or manufacturing (indicated by the shadowed, upper circle in Figure 3.1).

The Uppsala Model and the innovation-related models both emphasize the importance of knowledge accumulation for firms’ expansion in international markets. However, Bell (1995) challenges the traditional stage models by concluding that the psychic distance aspect neither adequately reflect the factors influencing the internationalisation of small, high-technology firms, nor their patterns and performances. He identifies a rapid internationalization process without “rings in the water” and notes that although some firms enter a market with a close psychic distance, others do not. Recently, more convincing evidence of the limitations of the manifest stage models has appeared in the literature (Bodur and Madsen 1993, Korhonen 1999, Crick and Jones 2000), while other researchers have identified an increasing number of firms that do not follow the traditional stage pattern in their internationalisation. In contrast, these firms aim for international markets or, sometimes, even the global market right from the beginning. Such companies have been termed as “Born Globals” (Knight and Cavusgil 1997), “Global Start-ups” (Oviatt and McDougall 1994), “High Technology Start-ups” (Jolly et al. 1992) and “International New Ventures” (McDougall and Oviatt 2000). Many Born Globals and knowledge-intensive firms are founded by innovative managers who follow deliberate strategies to rapidly internationalize their activities (Bell 1995, Bell et al. 2002). Typically, these managers adopt a global focus from the outset and embark on a rapid, dedicated
internationalization process. Another feature of these firms is their increasing specialization within a number of “niche” markets, such as very specific parts and components that they offer for sale in international markets.

There are also studies showing firms adapting their activities in response to particular “episodes” that may push them towards rapid international expansion (Wheeler, McDonald and Greaves 2003). On the other hand, some events may encourage firms to focus on domestic markets. In this case, the pattern of internationalisation may show a period of consolidation and reconstruction right after a period of internationalisation. Therefore, some firms pursue spasmodic internationalisation trajectories that are different from the born global or conventional pathways (Bell et al. 2003).

3.2 Inward-outward connection approach

The connection between upstream and downstream activities, and how this connection affects the internationalisation process of the firm, has received limited attention in recent business literature. In the Inward-Outward Connection Model (Karlsen et al. 2003, Korhonen 1999, Welch and Luostarinen 1993), the focus is on a particular upstream activity, namely international procurement (imports), and how that activity may affect international downstream activities, notably export sales. The model contends that import activities (“inward internationalisation”) may have positive network and learning spill-over effects on export activities (“outward internationalisation”) (see Figure 3.2). Welch and Luostarinen’s (1993) work on the possible connections between inward and outward internationalisation processes stresses that, for many companies, these spill-overs or links may be important at even the earliest stages of international development. The limited evidence available indicates that inward activities may provide a good opportunity to learn about foreign trade techniques, foreign operation characteristics and ways of using different operational modes.

By actively using this knowledge, the firm should be in a better position to undertake outward operations in a foreign market. In a large-scale study of Finnish SMEs, Korhonen (1999) found that a majority of Finnish companies began international activities on the inward side rather than on the outward side, which points to the potential importance of inward activities as a springboard to outward activities. Korhonen found inward-outward connections at different
stages of the internationalisation process and revealed various contexts where inward-outward connections may emerge and develop (Figure 3.2).

**Figure 3.2: The Inward-Outward model: export facilitation through import activities**

![Diagram showing the Inward-Outward model](image)

*Source: Own made*

At the beginning of a company’s international life-cycle, unilateral connections were found to play a significant role in the formation of a direct link between inward operations and outward operations. Bilateral connections involved two-way interaction or use of international business partners, e.g. using a foreign supplier to help develop exporting operations, perhaps even as a distributor for the focal firm. The focal, internationalizing firm may be able to obtain detailed, market-specific knowledge of marketing conditions, central values held by market participants, and structural features of the market through its dealings with the foreign supplier.

Multilateral connections involve a broader set of actors, interdependencies, and influences in the move from inward to outward operations or vice versa, such as those seen in the case of an inward-outward connecting chain that links a company to its foreign supplier, a customer or
bank of that foreign supplier, or a trade assistance agency. In this internationalisation model, inward activities – such as imports – have been found to be important factors for companies trying to overcome the psychic distance (Hallén and Wiedersheim-Paul 1989, Jain 1989) and then achieve greater involvement in the foreign markets. The inward movement, in whatever form, signals the beginning of a relationship between a foreign seller and a local buyer, which creates a possibility to then use that link to create a foreign network and obtain knowledge about a foreign market.

3.3 Technology import approach

As contended by inward-outward connection scholars, inward operations may enhance a firm’s international competitiveness and, in turn, enable outward internationalisation (exports). By importing crucial raw materials, components, or machinery, the overall export capability of firms may increase. The same beneficial export effect may be achieved when firms buy patents or service expertise. In this case, a firm acquires a license for a new product or service which, in time, increases the firm’s skills in product design, marketing and manufacturing. Therefore, the import activities at large are basically those that ensure successful exports (see Figure 3.3). Based on several case studies of Korean licensees and franchisees, Lim (2000) concluded that emerging market firms can overcome their resource limitations and build their competitive advantages by learning from licensors and franchisors. Technological capacity and productivity can be enhanced through the international license operations, thereby strengthening the firms’ ownership advantages (Dunning 1993).

Much of the literature on latecomer firms in the Asian NICs is based on the notion that firms acquire foreign technology in various ways, familiarize themselves with the technology, and – as a corollary – manage to improve their manufacturing skills to a level where they are able to compete successfully in export markets (Hobday 1995, Mathews 2002).

The Technology Import Model implicitly assumes that either sales and marketing play a diminutive role in exports, i.e. foreign markets are characterized by almost perfect price competition, or emerging market firms somehow pick up the necessary downstream activity capabilities (the latter is indicated by the shadowed circle at the bottom of Figure 3.3).
Globalization shapes the position of firms coming from developed and developing countries and results in differing levels of firm involvement in the internationalisation process. Previous studies have not been able to give a full reason for why firms in emerging market countries follow different pathways when entering export markets. The export pattern may be examined more comprehensively by applying the framework of coordination of value added activities across firms’ boundaries (Gereffi 1994, Sturgeon 2000, Coe 2004) – usually termed the Global Value Chain (GVC) analysis. This framework not only highlights the importance of coordination across firm boundaries, but also the growing importance of new global buyers (mainly retailers and brand marketers) as key drivers and governors of the formation of globally dispersed and organizationally fragmented production and distribution networks. Gereffi (1994) uses the term "buyer-driven global commodity chains" to denote how global buyers create a highly competent supply-base on which global-scale production and distribution systems are built without direct ownership (see Figure 3.4).

Source: Own made
Over the past decade, the world has witnessed a remarkable growth in emerging markets’ sub-suppliers. African horticulture producers have improved the quality of their fruits, and their canning and packing techniques in order to integrate with the demanding English market. One can also observe the spectacular changes of Hong Kong and Chinese garment producers who have upgraded their marketing and design skills when joining global value chains with American and European partners (Humphrey and Schmitz 2000/2002). However, experience shows that, in most cases, the emerging market producer or sub-contractor who is integrated in the global value chain strengthens some of its upstream activity capabilities through the linkages with the lead firm, but remains weak in terms of independent performance of marketing and sales activities.

3.5 Chapter summary

In this chapter four different approaches to the upstream-downstream dichotomy and its implications to the international competitiveness of firms have been outlined. Together, the approaches constitute a theoretical basis of the study inasmuch as the alternative routes to successful export performance are indicated. However, the underlying facilitators of upstream (import) and downstream (export) activities are not known. This is the issue for the next chapter.
4. CONCEPTUAL MODEL AND HYPOTHESES

Consulting extant internationalization literature the previous chapter accounted for the basic connections between import and export activities on the one hand and international competitiveness in relation to upstream and downstream activities on the other hand. It was pointed out that, potentially, international competitiveness and export success may arise from both import and export activities. Import activities may affect export performance directly, but also indirectly by facilitating the export activities – the so-called inward-outward connection (Welch and Luostarinen 1993). What is less clear in the four approaches is what specifically creates a positive relationship between import/inward activities and export/outward on the one side and international competitiveness in upstream and downstream activities on the other side. What is it that facilitate the international competitiveness as to upstream and downstream activities - and, in turn, may imply enhanced export performance of emerging market firms?

In this chapter various potential export facilitators are identified and hypotheses as to their impact on international competitiveness in either upstream or downstream activities (or both) are developed. The chapter first develop hypotheses about export facilitators that have to do with import activities, then formulate hypotheses about facilitators in connection to export activities; finally, a set of hypotheses are derived about how the export performance of emerging market firms is affected by international competitiveness in relation to either upstream or downstream activities.

The identification of export facilitators is informed and guided by the traditional and extended internationalization process theory (Johanson and Vahlne 1977/1990/2003/2006) in which learning and networking are crucial factors. However, the development of hypotheses draw on the literature on organizational learning, networks and social capital at large.

4.1 Competitiveness in upstream activities

4.1.1 Increasing upstream competitiveness by importing technology

In recent years, emerging market economies have become important exporters of manufactured goods, and moved away from their traditional role as providers of primary and processed natural resources. Previously, these economies were perceived as benefiting from the comparative
advantages of abundant, cheap natural and labour resources. For example, countries in Southeast Asia have rich agricultural resources, which enable them to produce large harvests of grains and secondary food crops. These agricultural resources, augmented by mineral wealth in the case of Indonesia and Malaysia, helped these countries to produce export surpluses of several primary products (Dowling 1997). However, as Dunning indicates (1998), when countries move up the development ladder, the international competitiveness of a country’s enterprises become less based on the comparative advantages of factor endowments, and more on firm-specific and proprietary advantages (or “ownership-specific advantages” in Dunning’s vocabulary) supplying regional or global markets. Therefore, emerging market countries that possess an abundance of natural resources but lack firms with competitive advantages in capital and technology had to focus their strategies on foreign direct investment or licensing-in of product and process technologies. For many developing countries of emerging economies these strategies have become important vehicles for rapid growth in productive capacity and improved competitiveness. In these countries, licensing became a substitute for learning and innovation within firms and reduced the need for linkages to a local knowledge base as a means to stimulate innovation in production (Mytelka 1978). Depicted as “latecomer firms” (Hobday 1995, Mathew 2000), these firms adopted a strategy of technology transfer. The common denominator among these firms is that, from the outset, they embark on the adoption of technological advances from firms in industrialized economies to boost their competitiveness and growth. In turn, their sourcing strategies become an essential vehicle for achieving international competitiveness.

To succeed in foreign markets, firms take advantage of the scarcity and immobility of knowhow and imperfections in technological markets in order to spot international market opportunities before others and, consequently, appropriate world-class technology. According to the resource-based view (Winter 1987, Barney 1991), technological capabilities represent a source of sustainable competitive advantage since they are valuable and difficult for competitors to imitate. Technological resources include technological know-how generated by R&D activities and other technology-specific intellectual capital, as well as patents protected by intellectual property rights. If these skills are complicated and encompassed in specific intellectual capital, they are valuable and hard to imitate. The track records of Japanese, Korean and Taiwanese firms have reaped high payoffs from absorbing foreign technology, developing
these technologies and creating more sophisticated products. The resource-based view also mentions that there are not many firms in the real world that can cover all parts of the production value chain’s activities. Therefore, a firm’s strategy also needs to focus on establishing good relationships with other firms and avoid a sole focus on developing only internal resources. Restricted by resource endowments, firms have to establish business contacts with other firms that own complementary resources (Lee et al. 2001). Importing activities can create competitive advantages, especially for firms in developing countries, and in turn facilitate the internationalization process. With imports of crucial raw materials and components, the export capability of firms increases. The same is true when firms buy patents or service expertise. A firm acquires a license for a new product or service, which increases its product design, marketing and manufacturing skills and enables a faster market entry (Welch, 1985). Based on a study of several cases of licensing and franchising contracts in Korea, Lim (2000) concluded that firms can overcome their resource limitations and build competitive advantages by imitating licensors and franchisors. Therefore, for firms in emerging markets technology importing activities play an essential role in the creation of sustainable, competitive advantage and international expansion.

**Learning/unlearning as a capability**

One premise of this study is that knowledge about foreign markets and operations, as well as the rate at which knowledge is selected and acquired - or disposed of - is essential to a firm’s competitiveness. Internationalizing firms must unlearn routines before new routines can be learned (Autio et al. 2000). In developing countries such as Vietnam, unlearning organizational schemes requires great effort due to the extensive history of many enterprises, particularly state-owned firms. These types of firms are “sticky” in relation to particular types of knowledge if they acquire it early on, after which they develop “competence traps” which limit the acquisition of knowledge and the pursuit of opportunities suited to existing competencies (Cohen and Levinthal 1990). For example, the more time managers of state-owned firms dedicate to building technology importing relationships with foreign partners in Russia and Eastern Europe, the more resistant they will be to re-directing their attention towards technologies available in North America and Western Europe. When compared to firms in industrialized countries, the sophistication of production technology used to develop SOEs is generally considered to be lagging by several generations. In the case of Vietnam, the obsolescent,
less-complicated technologies that have been transferred from Russia and Eastern Europe since the 1950s accounts for an estimated 60-70% of imported technologies, whereas modern technologies account for 30-40% (Vietnam Development Report 2006). The quality and effectiveness of technology transfers are still limited because firms fail to select optimum technologies. At present, there is a confused mixture of obsolete, mid-level and advanced technologies in many enterprises. Moreover, firms are not liable to pay for the capital cost of inventories, which has led to redundancy of fixed assets and a slack in machines and equipments that are less valuable for competition in open markets (Uhlenbruck et al. 2003, Meyer 1998). These firms are subject to greater budget constraints and should sell off the slack resources to obtain modern machines and equipment in order to compete in international markets. Sales of these assets generate funds for reinvestment in other resources that support taking advantage of market opportunities, which is also a way of unlearning inappropriate, dated ways of doing business (Uhlenbruck et al. 2003). Therefore, only firms that can unlearn the technology trajectories and traditions, write off obsolete machines and equipment and import state-of-the-art technologies, are successful in foreign markets.

Conversely, the earlier firms move to become international, the less well-established their political and relational allegiances will be. Such firms are more likely to orient themselves to develop a modern technological base at inception. When entrepreneurial firms initiate operations in foreign markets, they are more likely to make significant investments in cutting-edge technology, although this is costly (Tran 1999). When newcomer firms have strategies to import modern technologies from foreign countries, those strategies are expected to become common tools in their pursuit of growth.

In emerging market countries, even young firms possess a learning advantage in terms of importing modern technology. Though, state-owned or long-established firms can still gain competitiveness by overcoming the impediments of rigidity, by taking on novel knowledge and by upgrading to advanced technologies.

Based on these arguments, the following hypotheses are proposed:
H1a: The higher the proportion of imported machinery, the better the upstream competitiveness of the emerging market firm.

H1b: The higher the proportion of imported know-how and user rights, the better the upstream competitiveness of the emerging market firm.

H1c: The higher the proportion of imported materials, the better the upstream competitiveness of the emerging market firm.

A firm’s competitiveness is not only based on machinery and software, but also on knowledge, skills and the competencies of individuals, because ultimately it is the individual who controls the machinery and software (Argyris and Schon 1978). In particular, significant learning would not take place without the presence of technical experts with tacit technical knowledge. Previous studies have indicated that competent, valuable experts must possess technical skills (Tung 1987, Bjorkman and Schaap 1994). In emerging market countries, existing technical and engineering schools often fail to produce enough human resources with the skills and aptitudes required for firms to compete and upgrade, so that firms need to improve their technology base by recruiting foreign expertise. The success of Newly Industrialization Economy (NIE) countries serves as an example of coupling export and technological development, where export market needs guide the investment in technological upgrades and provides a channel for acquiring foreign technologies from overseas partners. Although they are not as technologically advanced as companies in the US and Western Europe, the impressive export performance of the garment industry and other export industries in Indonesia since the mid-1970s is somewhat similar to the experience of the firms in the NIE. The remarkable growth of Bali’s export industries started with garments in the mid-1970s, and subsequently, the booming jewellery, wood, leather, and stone industries were based on vital information flows that these local firms established through strategic business alliances with foreign firms and through the recruitment of individuals (Cole 1998). The major factor that triggered the success of the Bali export industry was information transfer and technical assistance provided by the foreign buyers or entrepreneurs, including strict quality control. This enabled the Indonesian firms to achieve high levels of efficiency and accuracy. This assistance was provided on a for-profit basis, as it was specifically tied to tangible product output results (Cole 1998, Thee and Hamid 1997). The
ongoing interaction of these two parties started a virtuous cycle of technological improvement and learning that was self-replicating and largely self-financing, resulting in rapid, sustained export growth (Cole 1998). Based on these lessons and arguments, the following hypothesis is proposed:

\[ H1d: \text{The higher the number of recruited foreign experts, the better the upstream competitiveness of the emerging market firm.} \]

4.2 Competitiveness in downstream activities

4.2.1 Increasing downstream competitiveness through opportunity recognition

Successful international performance requires innovative decisions by an ‘entrepreneur’ in constructing new means for new ends (new markets), through the introduction of products or services and/or organizing methods (e.g. operations, strategies) to a new international market. (Chandra and Styles 2005)

Identifying and selecting the right opportunities for new business are among the most important abilities of a successful entrepreneur (Stevenson et al., 1985). Consequently, explaining the discovery and development of opportunities is a key part of entrepreneurship research (Venkataraman 1997). Numerous models of opportunity recognition and development have been presented in recent years (Bhave 1994, Schwartz and Teach 1999, Singh et al. 1999, De Koning 1999, Sigrist 1999). Entrepreneurs identify business opportunities that will create and deliver value to stakeholders. While elements of opportunities may be “recognized”, opportunities are made, not found. Careful investigation of, and sensitivity to, market needs, as well as an ability to spot sub-optimal deployment of resources, may help an entrepreneur develop an opportunity (Zhibiao 2006, Casson and Wadeson 2007). However, opportunity development also requires an entrepreneur’s creativity. Given a rapidly changing environment, dynamic entrepreneurs can often find new commercial opportunities to grasp profits that cannot be seen by other, more risk-averse people. This distinctive resource can also serve as source of competitive advantage. Kirzner (1997) applied the term of “entrepreneur alertness” to the ability to realize a market opportunity. Entrepreneurs do not necessarily possess professional
knowledge or expertise, but they can recognize potential opportunities and the value of expert knowledge, transforming this knowledge into profits.

Entrepreneurs’ pro-activeness in studying foreign markets has been widely studied in literature focusing on opportunity recognition and development. Most empirical evidence indicates that firms with top managers who are internationally experienced, i.e. those who have spent a good deal of time studying or visiting foreign countries, are generally less affected by international business-related uncertainties (Simmonds and Smith 1968, Wiedersheim-Paul et al. 1978). In entrepreneurship research, the evidence shows that those making decisions on foreign market spending are more likely to be entrepreneurial than those who do not focus on foreign markets (Morris and Lewis, 1995). Managers with greater international business experience could be expected to have developed better international networks, product-market knowledge and skills with which to effectively enter and penetrate overseas markets, which in turn contribute to a firm’s competitiveness. Therefore, the following hypothesis is proposed:

\[ H2a: \text{The more foreign business trips conducted by employees of an emerging market firm, the better its downstream competitiveness.} \]

**4.2.2 Increasing downstream competitiveness through internationally oriented staff**

The importance of human resources has been the focus of many studies on the internationalization of emerging market firms. Together with technology and innovation, human resources are considered an important source of competitive advantage, as the human resource element is vital to the execution of competitive scenarios and generating strategic capabilities (Barney 1991).

In terms of improving competitive standing, emerging market firms generally lack not only technology but also human resources. Examples of developing countries and emerging markets like Vietnam indicate that there are insufficient supplies of highly skilled employees. Not only are enrolment rates in primary and secondary schools low, but the quality of education is also poor. Tertiary, technical and professional education is quite limited. University and vocational training fail to adequately serve the production needs of firms, and the traditional mandate of universities in these countries is not necessarily practice-oriented. Local enterprises often
complain about the difficulty of finding enough skilled labour for their production activities (Pham 2000). The educational infrastructure falls below international standards, while local research efforts tend to be “theoretical, supply-driven, and not connected to the needs of the productive sector” (Kamoche 2001).

As globalization unfolded, governments in emerging economies attempted to correct these imbalances, but local firms remain constrained by shortages of skilled and professional manpower (Kamoche 2001). Moreover, market imperfections result in an uneven allocation of labour. The labour market for people with good skills in general, and for those experienced in international business in particular, is imperfect due to family relations and idiosyncrasies. In emerging economies like Vietnam, job opportunities are enhanced by the creation of a "corporate family" held together by harmonious, long-term relationships. Apart from educational qualifications, firms look for "long-term commitment" and "blood relations." The importance of a long-term commitment has been explained in terms of the need to establish trusting relationships in a society that has seen trust tested in the long war-time years. “Blood relations” are seen in terms of deference to dependability and punctuality (Hitt et al., 2002). Therefore, family or blood relationships are considered to be very important in terms of maintaining good staff.

The above-mentioned scarcity and immobility of local people with IB skills and language proficiency provide first-mover advantages to entrepreneurial talent that can spot international market opportunities and subsequently hire sales staff with IB skills and language proficiency. Firms can pre-empt scarce assets by being the first to employ those individuals with IB experience and language proficiency. However, the recruitment of talented people must go hand in hand with retaining and continually training them. In this way, the pioneer firms that focus on recruiting and training skilled employees are more likely to be innovative and adopt strategies that allow them to compete successfully in international markets (Chadee and Kumar 2001). In particular, by taking advantage of underdeveloped labour supplies, the culture of “long-term commitment” and “blood relations”, firms can retain and use this resource that cannot then extracted by others. In general, firms with a greater human resources orientation are likely to have more competent workers, which, in turn, contribute to their performance (Pfeffer 1994).
Skilled staff: a source of success

Human resources contribute to firms through their intelligence and flexibility, which can be called “tacit knowledge”. Human resource advantages consist of both general and specific advantages. General advantages are transferrable and can be adopted by competitors – they cannot be seen as a source of sustainable advantage. Specific advantages, on the other hand, cannot be transferred or appropriated by competitors. They include tacit knowledge and the employee skills that firms can take advantage of in their business development. The knowledge and skills are specific or idiosyncratic to a particular organization or activity, making them less useful for other firms. Specific human advantages constitute a unique, powerful source of competitive advantage for a firm. Therefore, it is important to recruit and retain talented employees to sustain an international competitive advantage (Chadee and Kumar 2001). Some studies suggest that on-the-job training programs in human resource selection procedures can facilitate knowledge acquisition in the firm (Youndt et al. 1996, Teece 1998). Studies also point out that investments in firm-specific human capital are more efficient if the workforce increases its human capital through working experience. Recent studies on entry penetration and survival rates show that the ability to develop and retain such assets is crucial for building a sustainable competitive advantage (Autor et al. 1998).

In an international business context, tacit knowledge of the geographically dispersed markets within which a company wants to operate is an asset. This knowledge is mainly acquired through personal experience within the specific international markets (Athanassiou & Nigh 2000). Knowledge of foreign markets (developed through experience) is important to overcoming barriers created by differences in language, culture, business practices, and legislation (Morosini & Shane 1998). Experience in foreign markets, especially through involvement in multinational corporations or international organizations, exposes entrepreneurs to useful information and contacts. Moreover, knowledge of foreign markets enhances the likelihood of export engagement and expansion (Reid 1983) and has a positive impact on the degree of internationalization (Reuber & Fischer 1997). Knowledge obtained through international assignments is likely to bring a deeper understanding of international trade policies, exchange rate risks, an appreciation for other cultures, and an international network of professional colleagues outside the firm – all of which yield skills and capabilities with broad international applications (Carpenter et al. 2000).
The international experience of a firm’s staff is an inimitable and irreplaceable resource. Resources arising from international experience include specific knowledge that is difficult to imitate – once competitors begin to understand the knowledge-based resources of a firm, that firm will have already developed further, refining its knowledge and applying it differently (Athanassiou & Nigh 2000).

Given the above, the following hypothesis is proposed:

H2b: *The higher the proportion of sales staff with IB experience, the better the downstream competitiveness of the emerging market firm.*

The employment of linguistic-experienced marketing employees has also been acknowledged as facilitating access to information on overseas markets and leading to a deeper understanding of this information (Swift 1991). Linguists are more likely to be employed in sales and marketing than in other functions (Enderwich and Akoorie 1994). In sales and marketing, language skills enable a greater grasp of market details. Recent studies support the finding that language familiarity is particularly important for smaller companies in the early stages of internationalization (Welch et al. 2001, Piekkari 1999). Sales staff with foreign language skills not only tend to drive decisions but also act as key implementers, undertaking foreign visits, and negotiating and maintaining pivotal relationships with foreign actors, thereby reinforcing the impact of their personal language competence (Welch et al. 2001). Language skills can boost the firm’s cultural sensitivity, which is seen as an important prerequisite to international marketing success. Hence, the following hypothesis is formulated:

H2c: *The higher the proportion of sales staff with foreign language skills, the better the downstream competitiveness of the emerging market firm.*

### 4.2.3 Increasing downstream competitiveness via the Internet

The Internet is an information-intensive environment that allows firms to disseminate, acquire and use information for their business. The Internet also enables firms to use websites to provide in-depth and reflexive content to potential foreign partners. In addition, the Internet offers the
potential to facilitate information dissemination, which in turn could bring about more contacts with buyers abroad and eliminate problems associated with distance (Petersen, Liesch and Welch 2003). As a result, small firms with websites engage in “border crossing” through which they can find global buyers and execute contracts with them. By virtue of the Internet, firms can access useful information about existing and prospective foreign markets, which is of immense value in the context of internationalization (Prashantham 2005, Nguyen and Barrett 2003). Online marketing via a firm’s website can distribute information about customers, business partners, and government agencies. At the same time, the use of online databases can yield a profound understanding of international market segments (Liesch and Knight 1999). In supply chain management, the Internet can be a very effective tool for sharing information with suppliers and customers.

Early realization of the Internet’s potential may position a firm as a first mover in terms of web-based, day-to-day business operations. Some research indicates that the early adoption of the Internet for day-to-day business reduces coordination costs and provides access to efficient electronic markets (Damaskopoulos and Evgeniou 2003, Lee and Clark 1997). In their study of emerging market SMEs in Eastern Europe and Cyprus, Damaskopoulos and Evgeniou (2003) found that some sample firms established their websites to take advantage of cost reductions, ease the search for new markets, and augment competitiveness. Another study focused on the impact of web-enabled internationalization on Australian SME’s export market development (Hodgkinson et al. 2003). Teltscher (2002) observed that the firms in developing countries who outweigh the competitors are those that use the Internet for their daily transactions and marketing searches. Drew (2003) suggests that firms, especially SMEs, are placing e-business at the centre of their internationalization policy. In his study, the majority of the sample firms reported that the driving forces behind the adoption of e-business were opportunities for growth and the need to keep up with competition.

By recognizing the benefits accruing from the Internet, early entry firms may be the first to approach foreign customers and markets, thereby gaining superior profits. This leads to the following hypothesis:
**H2d**: The more the Internet is used in day-to-day business operations, the better the downstream competitiveness of the emerging market firm.

### 4.2.4 Increasing downstream competitiveness through home country governmental bodies

The literature on the business-government interface indicates that the effects of government on competitive positioning are important determinants of firm performance and that regulation often has asymmetric effects on competing firms (Shaffer 1995, Leone 1981/1986). At the core of the link between firm performance and the relationship with home country government agents is the observation that the capabilities of firms to exploit government resources are unevenly distributed (Oster 1982, Leone 1981/1986). In some cases, a firm may even take advantage of government resources before others if that resource has an asymmetric impact on individual players in an industry by disproportionately raising the rivals’ costs and thereby improving the firm’s overall competitive position (McWilliams et al. 2002).

Business literature has long emphasized the importance of government linkages to firm competitiveness. Studies of first-mover advantages have covered home-country governmental linkages, while numerous business history and political science studies have provided empirical evidence that governmental bodies can assist early exporters in improving competitiveness. The political scientist William Reno (1998) illustrated in some detail how small South African firms reaped profits when entering highly risky African markets, such as Sierra Leone and Angola, by using the networks of their home country governmental agencies. Using empirical research in China, Luo and Peng (1998) pointed out the impact of government linkages on foreign investment and remarked that “in China, a large number of early movers have been rewarded handsomely due to their collaboration with the government.”

**Government linkage as an intangible resource for success**

Some scholars see government linkages as sources of “intelligence and cognitive maps about nonmarket environments, better access to decision makers and opinion makers, and better bargaining or non-bargaining skills” (Boddewyn and Brewer 1994). Furthermore, governmental
bodies not only provide tangible assets like financial resources, but also intangible assets, such as reputation, alliance building and political entrepreneurship. These resources are considered essential, as they improve a firm’s competitiveness in terms of assets and human resource management. Networks with governments may constitute a sustainable resource, as suggested by Barney (1991).

There is much empirical evidence to support the view that government linkages are among the key factors for firm competitiveness, especially in emerging economies such as China and Vietnam where the government’s impact on business is still strong. Good government links can be important for a firm’s success when there is a high degree of uncertainty with regard to government regulation (Peng 2000). Research on emerging markets consistently finds that good relationships with governmental and other institutional bodies are key success factors (Sit and Lui 2000, Yoshimatsu 2000, Peng 2000). In a study of a Hong Kong-based corporation that successfully operates in China, Airriess’s (2001) found that not only is this firm’s market share dominance is not only explained by traditional economic factors, but also by the firm’s taking advantage of its home country governmental networks with China. Tan and Yeung’s (2000) study of Singaporean firms investing in China found that home country governmental bodies such as “...chambers of commerce and clan associations serve as the institutional mechanism to reduce the ‘friction of distance’ and potential problems...” of operating in a foreign market. In Tan and Litschert’s survey of managers in the Chinese electronics industry (1994), the state regulatory regime was found to have a key influence on firm performance.

The importance of government resources to firm competitiveness is also reinforced by cultural aspects. Southeast Asian countries, particularly Vietnam and China, have been greatly influenced by Confucianism, which stresses that individuals are not isolated entities but part of a larger system of interdependent relationships. As such, the building and managing of effective relationships is innate to the Vietnamese and Chinese cultures. Successful firms in Southeast Asia often engage in establishing governmental linkages to obtain privileged access to market and resources. The state not only drives regionalization and globalization through government-linked corporations, but also through various incentive schemes (provided through economic development boards) designed to assist domestic firms in capturing global markets (Yeung, 1988). Relationships with or connections to governmental agencies are also important, as
governmental organizations possess resources that are imperfectly distributed to firms. Only first-movers can exploit this connection and capitalize on it to their benefit. In terms of a firm’s international expansion, linkages with home-country governmental bodies may help create unnatural market imperfections through subsidies, and through entry and mobility barriers, while they can also provide preferential access to scarce resources in home countries – a situation normally seen in emerging economies (Boddewyn 1998, Brewer 1993, Hillman and Hitt 1999). Therefore, the establishment of relationships with governmental bodies enables firms to generate asymmetric competitive advantages over their competitors (Shaffer 1995, Frynas et al. 2006), as access to government networks in emerging markets and the ability to promote a favourable policy change are in scarce supply and difficult to obtain (Frynas et al. 2006).

Therefore the following hypothesis is formulated:

\[ H2e: \text{The stronger the linkages to home-country governmental bodies, the better the downstream competitiveness of the emerging market firm.} \]

### 4.2.5 Increasing downstream competitiveness using networks and alliances

Alliances and networks have become a common means of doing business in the twenty-first century. In global markets and in many domestic markets, strategic alliances are critical to achieving competitive parity and provide firms with the potential to develop a competitive advantage. Networks play a central role in the formation of new firms and the growth of existing firms, primarily because they provide access to the resources needed to survive and compete in local, national and global markets (Hite and Hesterly 2001). This fact has greatly increased the effects of social capital on the competitive capabilities of firms. Social capital facilitates the formation of alliances and contributes to the management of relationships in networks. Firms without adequate social capital may find it difficult to gain access to the resources necessary to compete, especially in global markets.

Firms operating in a network have many more resources available with which to increase their competitive ability than those available to non-networked firms. To be competitive, most firms need additional resources and therefore attempt to develop their own networks to gain
competitive parity or, more importantly, a competitive advantage. In this competitive environment, firms that possess considerable social capital are better off than those that do not, which may constitute a source of competitive advantage.

“Social capital” has been defined in different ways and by different research disciplines. For example, Coleman (1990) states that social capital is created when the relations among individuals change in a manner that facilitates action. Burt (1992) defines social capital as the opportunities a player receives through relationships with other players, such as colleagues. Whereas both Coleman (1990) and Burt (1992) suggest that social capital springs from relationships among people, Tsai and Ghoshal (1998) suggest that the norms and values associated with relationships contribute to social capital as well. Thus, most conceptions of social capital include relationships or networks of relationships among individuals and organizations. These relationships facilitate action, thereby creating value (Adler and Kwon 2002, Seifert et al. 2001). Therefore, relationships are the most critical dimension of social capital. Social capital effects range from substantive (e.g. supplier relationships) to facilitative (e.g. innovation and entrepreneurship) (Ahuja 2000). The necessity of building and managing inter-firm relationships to access resources for competitive advantage in global markets makes social capital a critical resource for survival and success. Hence, firms with greater social capital are likely to gain and sustain a competitive advantage.

Status as a first-mover or pioneer implies that there are advantages to be gained from being an early entrant into the market. The early entrant gains a competitive position, which is complemented and strengthened by strategic alliances (Doh 2000). The industrial organization and resource-based views of competitive strategy, as well as more recent work on network externalities and inter-organizational competitive advantages, have highlighted the importance of learning and knowledge acquisition through network relationships external to the focal organization (Dyer and Singh 1998). The interaction between early entry firms and their partners positions the first mover to earn long-term rents from internationalization. Collaboration might also facilitate the early entrant's ability to compete in one export market and to develop resources, capabilities, and knowledge that can be deployed in others (Barney 1991).
Globalization has put intense pressure on firms to move early to take advantage of one-time ownership options that generate bountiful growth and profit in the long run. These first mover pressures, in turn, increase the stakes associated with winning concessions and competing successfully, prompting firms to form alliances with complementary partners in order to succeed in global markets. Furthermore, alliances can smooth the way for favourable regulatory treatment as markets become ready for open competition, and they can also help erect or maintain market entry barriers. Together, these alliances provide early entrants with a powerful advantage, making it difficult for latecomers to challenge their position (Doh 2000).

Many rationales attempt to account for collective action via collaborative strategies and alliance structures among firms. For firms in both developing and developed countries, strategic alliances (SA) are seen as a preferable way for firms to increase their competitiveness in global markets (Buckley and Casson 1988, Contractor and Lorange 1988). More recently, researchers began focusing on more specific and complex explanations of SA formation. In particular, some scholars have found that fast entry into foreign markets, as well as profits, economies of scale, complementary technologies and patents, are some of the incentives for firms to form an SA (Madhok 1997, Contractor and Lorange 1988). Other authors focus on the potential for avoiding competition and establishing an out-performed position in the market through status as a first-mover (Doh 2000, Madhok 1997). Complementing the SA research is the work on inter-organizational cooperation and the influence of network resources on firm capabilities. This research has criticized the resource-based view as failing to accommodate the value of a network’s ability to create capabilities (Black and Boal 1994). These authors call the resource-based view a “stand-alone viewpoint”. Barney (1991) mentions bundles of resources but these are isolated and treated as singular capital. Black and Boal (1994) developed two types of resources: contained resources and system resources. The former is the simple network, while the latter is the complex network of firm resource factors. Other studies of networks have indicated that when resources are combined across firm boundaries they add value and facilitate resource exchanges (Thorelli 1986). Some researchers have suggested that access to information about potential partners constitutes a resource and such resources are an important catalyst for new alliances partly because alliances entail considerable hazards (Gulati 1999). Finally, firms’ capabilities with regard to alliance formation and valuable resources are factors in their future alliance decisions (Gulati & Garguilo 1999).
Networks are particularly important for firms in emerging economies (Child and Markoczy 1993, Peng and Heath 1996, Stark 1996). New or reorganized network relationships may be avenues for firm growth (Peng and Heath 1996) and can make it easier for a firm to learn how to operate in a global economy. In particular, producers of intermediate goods have to integrate with international production systems and build long-term relationships with major multinational customers (Meyer 2000). Alliances can facilitate organizational learning, particularly if clear and targeted goals are established. This is true for alliances with suppliers (e.g. to overcome problems of factor markets) and with customers (e.g. to learn about opportunities, marketing needs, and innovation) (Lyles and Salk 1996). Strategic alliances provide interactive opportunities to learn from the experiences of the partner (Hitt et al. 2000, March and Levitt 1999). Firms from emerging markets are likely to learn the most from foreign partners, especially if those firms come from a developed country. Alliances allow a firm to build its resource endowment and to get close enough to partners to understand even the tacit components of their capabilities (Lane and Lubatkin 1998). In addition, firms may also learn via observation of successful foreign competitors (Dacin et al. 1997). This learning, particularly of tacit knowledge, may contribute to a competitive advantage or at least competitive parity for emerging market firms.

Network and alliance relationships extend vital advantages. For example, informal social capital can be used to facilitate market expansion and competitive positioning (Park and Luo 2001). These, in turn, may lead to a competitive advantage. Informal relationships can be built by the collaboration between firms to upgrade their production capabilities, to enhance their finance positions or to obtain market information. From this informal relationship, the resulting networks represent a cluster of interdependent firms that cooperate to achieve and maintain a competitive advantage (Li 2001).

**Networks and alliances: conduits for information on opportunities**

Extant research shows that networks serve as conduits for the spread of information about new opportunities, especially opportunities in foreign markets (Aldrich and Zimmer 1986, Burt 1992, Ellis 2008). Opportunities arise as a consequence of market imperfections and asymmetric
information. Information about opportunities diffuses fragmentally, therefore, society generating benefits for those who are among the first to recognize them (Ellis 2008). Networks have proved important in identifying trade opportunities in foreign markets (see Chen and Chen 1998, Harris and Wheeler 2005, Loan and Bell 2005). International exchange opportunities trigger networks of friends and partners, as Zain and Ng found in their study of Malaysian firms (2006). Industry connections, along with relationships with former employees, dealers and customers, are used by Australian exporters to recognize market opportunities (Ellis and Pecotich 2001). The ability to recognize and act upon new opportunities in foreign market is determined by the reach and intensity of one firm’s ties with others.

Therefore, the following hypothesis is proposed:

\[ H2f: \text{The more an emerging market firm collaborates with other firms, the better its downstream competitiveness.} \]

### 4.2.6 Increasing downstream competitiveness using export assistant services

Export market information is very important to the internationalization of firms. Lam (2000) claims that “knowledge is increasingly regarded as the critical resource of firms and economies”, and this claim is supported by Nonaka (1991), who states that “in an economy where the only certainty is uncertainty, the one sure source of lasting competitive advantage is knowledge”. Indeed, success in an intensely competitive global business environment relies on better, more effective use of information.

The economic and social instability inherent in emerging markets produces ambiguity and uncertainty regarding trading legislation and rules. Firms can enhance their knowledge about new foreign markets by actively searching for market potential or using export assistant sources. Export assistant services generally include seminars for potential exporters, export financing schemes, market development programs (such as dissemination of sales) and participation in foreign trade shows. Assistance can also be specialized – firms can acquire information or
experiential knowledge on a particular market through export assistant services (Gencturk and Kotabe 2001).

**Export assistant services: a conduit for information on opportunities**

Research supports the contention that young firms rely on export assistance to approach international markets. As inexperienced exporters perceive the intensity of export impediments and cost of export activities as prohibitive, they are expected to depend on and benefit more from the external expertise and knowledge that is provided by export promotion programs (Diamantopoulos and Inglis 1988, Gencturk and Kotabe 2001). Prior to the privatization and globalization of emerging markets, the SOEs’ primary sources of information were state agencies. The central plan and bureaucratic control basically dictated networks and relationships (Peng and Heach 1996, Uhlenbruck et al. 2003). Following the economic reforms, these firms had to obtain information themselves – information on which products were in demand and which products they were in the best position to provide (Swan 1997). In emerging countries like Vietnam, SOEs are no longer in a superior position compared to private firms, as the government is committed to a “level playing field” for all types of firms. If SOEs were still dependent on the state authorities, they would soon be pushed out of the international markets as the competition became more intense. Successful exporters are those that actively pursue knowledge about market environments. These firms can pick up knowledge from export assistant services because this knowledge alerts the firms of emerging opportunities. Therefore, this thesis argues that emerging market firms that are pioneers in acquiring the necessary specialized expertise from secondary sources are more likely to improve their sales and marketing positions, regardless of ownership structure, experience or size.

In order to utilize acquired knowledge from export promotion services and thereafter identify market opportunities, firms need to have the capacity to process the information. Therefore, firms that have absorptive capacity (Cohen and Levinthal 1990) are more likely to make good use of export assistant services to improve their downstream competitiveness. Firms that have the adequate absorptive capacity to select, acquire and use knowledge from export assistant services and integrate this knowledge for their own use will strengthen their marketing base in foreign markets. The following hypothesis is derived on this basis:
4.3 Links between upstream activities and downstream competitiveness

The connections between upstream and downstream internationalization have primarily been identified through research on specific aspects of foreign business operations, such as importing, licensing, subcontracting, exporting and foreign direct investments (Korhonen et al. 1996, Welch and Luostarinen 1993, Sorensen and Kuada 1998). Welch and Luostarinen’s (1993) work on the possible connections between upstream and downstream internationalization processes (which they term “inward” and “outward”) stresses that the links may be important even at the earliest stages of international development. Furthermore, they state that the links are broad and cross operational modes, and may develop from either the upstream or downstream side at different stages of a firm’s international development. The case studies they present indicate that upstream activities may provide a good opportunity to learn about foreign trade techniques, foreign operation characteristics and ways of using different operation modes. By actively using this knowledge, the firm should be in a better position to undertake downstream operations in a foreign market. In a large study of Finnish SMEs, Korhonen (1999) found that the majority of the observed companies began international activities on the upstream side rather than on the downstream side, which points to the potential importance of upstream activities as a springboard for downstream activities. Typical upstream operations were imports of physical products like raw materials, machinery, and components, as well as the import of services, like installation, testing, servicing, and maintenance, although the latter were imported at a low level. Furthermore, Korhonen (1999) found upstream-downstream connections at different stages of the internationalization process and identified various contexts in which upstream-downstream connections may emerge and develop. For small firms from developing countries, upstream and downstream internationalization is often linked because the customer also acts as the supplier (upstream) for some contract production, providing input, training, equipment (Sorensen and Kuada 1998). Therefore, one direction of internationalization may trigger a partnership and cooperation for the opposite direction, and vice versa. Information on the market, the customers, the competitors and the suppliers is acquired by importing from foreign markets. By interacting with specific suppliers and other market actors, a firm accumulates
experiential knowledge useful for international expansion. Imports of machinery, technological know-how, raw materials and components take place in order to start production and international downstream operations. Bilateral connections involve two-way interaction or use of international business partners, e.g. using a foreign supplier to help develop export operations, perhaps even as a distributor. The company may be able to obtain detailed, market-specific knowledge of marketing conditions, central values held by market participants, and structural features of the market through its dealings with the supplier. Lack of such experiential knowledge is often seen as a reason for failure in foreign markets (Johanson and Vahlne 1977/1990). Therefore, the following hypotheses are formulated:

*H3a:* The higher the proportion of imported machinery, the better the downstream competitiveness of the emerging market firm.

*H3b:* The higher the proportion of imported know-how and user rights, the better the downstream competitiveness of the emerging market firm.

*H3c:* The higher the proportion of imported materials, the better the downstream competitiveness of the emerging market firm.

*H3d:* The higher the recruitment of foreign experts, the better the downstream competitiveness of the emerging market firm.

**4.4 Competitiveness and export performance**

The export performance literature aims to explain the determinants of export success and failure. By their nature, such explanations are two-sided. First, the researcher has to choose his/her focus in terms of a large number of potential direct and indirect determinants of a firm’s export performance. Second, the researcher must choose what aspects of export performance he/she wants to capture. Therefore, a discussion of the two sides of export performance in relation to the focus of this thesis is relevant.
4.4.1 Export performance measurements

Previous discussions have basically been concerned with two dichotomies, which overlap to some extent. One dichotomy is between objective (monetary, financial, quantitative) and subjective (perceptual, psychic, qualitative) measures. The other is between economic and strategic measures.

4.4.2 Export performance: differing impact of upstream and downstream competitiveness

In general, export performance studies have viewed exporting simply as a means of realizing the economic goals of the firm (Cavusgil and Zou 1994). Therefore, performance has predominantly been measured in terms of export sales or profits, with no attempt to relate it to a firm’s strategic or competitive goals, such as gaining a foothold in foreign markets or neutralizing competitive pressure. Such strategic goals are naturally more long-term than economic. The need for strategic considerations in marketing has been emphasized by Day and Wensley (1983), Lambkin and Day (1989), and Wind and Robertson (1983), and their value in export marketing has been discussed by Cavusgil and Zou (1994) and Zou et al. (1998). The strategic considerations of an OEM-subcontractor incorporated in a GVC – a “captive” exporter – are likely to differ fundamentally from those of an independent exporter. The captive exporter tends to be locked in, with limited scope for seeking out new markets, customers, or products. To a large extent, the strategic decisions are in the hands of the global customers of the local supplier. The strategic scope is traded off against secured access to cutting-edge design, process technology and global markets. Here, the OEM firm concentrates on sustaining and developing differentiation and, in particular, cost advantages in relation to upstream value chain activities, including inbound and outbound logistics as well as operations (i.e. production of manufactured goods and services). These benefits can be translated into fulfilment of short-term economic goals. In contrast, the independent exporter trades off short-term sales and profit gains for long-term strategic market opportunities, including the possibility to achieve considerable bargaining power (and concomitant monopoly rents) in international markets. This strategy enables the entrant firm to conduct downstream value chain activities (Porter 1985) – i.e. marketing, sales, and customer servicing – as efficiently as local/domestic competitors. Only through learning-by-exporting processes is the internationalizing firm able to acquire downstream export activity capabilities on a level from which the firm can compete successfully with local competitors. In
other words, by enhancing downstream competitiveness, the independent exporter sacrifices economic export performance in order to prioritise strategic export goals. The above leads to the following two hypotheses:

_Hypothesis H4a. Emerging market firms focusing on upstream competitiveness show better economic performance than firms focusing on downstream competitiveness._

_Hypothesis H4b. Emerging market firms focusing on downstream competitiveness show better strategic performance than firms focusing on upstream competitiveness._

The conceptual framework of the study is summarized in Figure 4.1 (see next page). Figure 4.1 is divided into two figures – 4.1a and 4.1b – focusing on economic and strategic performance respectively. However, apart from this difference, the two figures share the same observed and latent variables. The export facilitators and ‘controls’ make up the observed (or metric) variables, whereas the export determinants (= international competitiveness as to upstream and downstream competitiveness) and the export performance constitute the latent variables.

The export facilitators fall into two categories depending on whether they have to do with import or export activities. As indicated in the figures all export facilitators are hypothesized to have a positive impact on the international competitiveness of the emerging market firms; but whereas the facilitators connected to export activities (indicated by the yellow boxes) are hypothesized only to affect international competitiveness in relation to downstream activities, facilitators connected to import (light green boxes) are hypothesized to affect international competitiveness in relation to both upstream and downstream activities. The latter relationship is of a more indirect character inasmuch as these facilitators works through the export activities (not shown in the figures).

Finally, the control variables (GVC insertion, firm size, ownership structure, capital structure, and industry) are indicated in the blue box in the upper right corner.
Figure 4.1 Conceptual framework of the study

Figure 4.1a: Hypothesized relationships between export facilitating activities, upstream-downstream competitiveness and economic export performance

Note: Latent variables:

Observed variables/metric variables:
Figure 4.1b: Hypothesized relationships between export facilitating activities, upstream-downstream competitiveness and strategic export performance

Export Facilitators
- Import of machinery and software
- Import of know-how and user rights
- Import of material
- Employment of foreigners with technical expertise
- Conduct business trip
- Employment of sales staff with int'l experience
- Employment of sales staff with foreign language proficiency
- Use of internet for day-to-day business
- Use of home country governmental bodies
- Collaboration with other firms
- Use of export assistant services

Export Determinants
- Upstream competitiveness
- Downstream competitiveness

Export Performance
- Strategic Export Performance

Controls: (GVC insertion, size, ownership structure, industry)

Note: Latent variables: Observed variables/metric variables:
PART III

5. EMPIRICAL STUDY

This section presents the measurement strategy, research design, data collection processes and analyses. First, the different stages of the measurement process are described, with a particular focus on concepts and constructs. Then, the empirical study, which is designed to conduct a theory test of a causal model, is presented. The pilot study and pre-test examination help to identify and confirm relevant empirical measures. Then the collection of primary data from a medium-sized sample and the sampling technique are carefully analysed based on the nature of critical variables in the theoretical model. The use of structural equation modelling (SEM) to test the hypotheses is discussed, before the statistically significant results and analysis are presented.

Prior to moving into methodological issues and test results, it is important that the reader has a grasp of the emerging market context of this study. For that purpose, two short company cases, which describe two Vietnamese exporters (Thai Hoa and Woodsland Corporation, see Boxes 5.1 and 5.2) are presented. These cases represent the two contrasting export strategies – upstream versus downstream competitiveness enhancement. Although these two exporters are different in terms of their internationalisation strategies and parameters such as industry, size, and age, the two companies are very successful in terms of their international competitiveness and financial performance. Woodsland’s annual export revenue growth rates in 2005 and 2006 were 50% and 60%, respectively. For Thai Hoa, the rates were even higher at 80% and 95%, respectively (GSOnet 2006). Both companies are ranked number one among incumbent domestic companies in their industries in terms of export market share of branded products (Global Market Information Database 2001-2006).
Box 5.1: Thai Hoa – A downstream international export strategy

In early March 1996, agricultural engineer Nguyen Van An decided to establish a company to realize his burning desire: to build up a brand name of Arabica coffee using the famous Phu Quy land. In less than ten years, his dream had come true. Today, Thai Hoa is Vietnam’s biggest exporter of Arabica coffee. In 2000, Thai Hoa’s successful penetration of the Japanese market was evidenced by exporting orders, which equalled 6.5% of Japan’s total demand for coffee. As a result of Thai Hoa’s effort, the Japanese have accepted Vietnamese Arabica, which is offered in a number of varieties. The achievement of becoming a well-established coffee brand in Japan and one that persistently yields large export orders is only a stepping stone for Thai Hoa’s export venture. The company is now targeting South Korea and other Asian countries as its next exporting markets. Given that the taste preferences of Koreans and other Asian coffee-drinkers are diverse and affected by ethnic differences, Thai Hoa has changed its traditional harvesting techniques and diversified the growing locations to include not only the dry, cool middle region of Vietnam but also the wetter, colder north. Export orders from Malaysia and the Philippines have risen significantly since these initiatives were implemented. Its success in the Asian markets has motivated Thai Hoa to enter the extremely demanding American and European markets. The company is one of only a few Vietnamese companies having direct transactions on the world’s two biggest trading floors: London and New York.

The internationalisation path of Thai Hoa echoes the traditional learning-oriented internationalisation process model in which firms gradually and independently expand their international downstream activities. To overcome its psychic distance to foreign markets and to increase its international competitiveness, Thai Hoa commenced exporting to culturally close markets and then expanded to other Asian countries (such as Korea and Malaysia) with successively greater psychic distances. Eventually, Thai Hoa entered the highly demanding American and European markets.

Source: Personal communication and annual reports
Box 5.2: Woodsland JV Corporation
– An upstream international export strategy

With a wealth of experience in producing wooden furniture for sale in the domestic market, Woodsland quickly gained a foothold in foreign markets by bringing products directly to those markets – particularly in Europe. Since its inception, the company has invested in building spacious workshops, and in buying machinery and equipment to enable it to deliver a broad range of quality products. However, the great success of the company originates from its collaboration with the multinational retailing giant IKEA of Sweden. IKEA is by far the biggest home furnishing corporation in Sweden. The initial collaboration with IKEA triggered Woodsland’s effort to enhance its capability to provide excellent quality and durability at a low cost. With its vast experience in product differentiation and cost leadership, IKEA assisted Woodsland in fulfilling its mission. Over the years, IKEA has equipped Woodsland with technical assistance, leased equipment and the skills necessary for the production of high-quality items. This long-term relationship not only results in superior products, but also adds internal value to the supplier. Woodsland has to carry basic items, but it also has the freedom to design the rest of the product mix to fit domestic and foreign market needs. The basic core products account for approximately 12,000 simple and functional furniture items. The IKEA head office is actively involved in the product selection process and provides valuable, product-related advice. In order to ensure that IKEA’s service level, quality and logistic standards are met, Woodsland is periodically audited and benchmarked against IKEA’s general key performance indicators. At the same time, IKEA provides extensive training and operational support. Over time, Woodsland has steadily expanded its wood processing plant in the Vinh Phuc exporting zone and in 2005 the company moved to bigger premises, so that it now occupies 10 square hectares in the Vietnamese furniture zone. With modern machinery and technology, Woodsland is able to manufacture more than 60 types of industrial woods and meet 30% of domestic demand. The company’s products have been well-accepted by consumers in European countries and the US. Other export markets targeted by Woodsland include Thailand, Laos, Cambodia, and South Africa.

Source: Personal communication and annual reports
5.1 Measurement process and variable development

The measures used in this study were developed in accordance with the procedures recommended by Bollen (1989) and Hair et al. (2005). According to Bollen and Hair, when a researcher has finalized a concept for measurement, the measurement process should consist of six steps:

- Step 1: Definition of individual constructs
- Step 2: Development of the overall measurement model
- Step 3: Design of a study to produce empirical results
- Step 4: Assessment of model validity
- Step 5: Specification of the structural model
- Step 6: Assessment of model validity.

The first and second steps were partially accounted for in the previous chapter, in which the relevant theoretical concepts and model were defined and explained on the basis of existing literature. The following section will focus on development of constructs and variables, as suggested in step three. The remaining sections will focus on stages four to six.

5.1.1 Pilot studies

The pilot studies were undertaken in September and October 2006 to ensure the validity and reliability of the operationalisation of the measures. Six companies were involved: two textile and garments firms (Haicatex and Thai Tuan Textile Company Limited), one agricultural processing company (Thai Hoa Producing and Trading Company), one wood processing company (Woodsland Corporation), one company producing leather-related products (LADODA – Leather Trading and Producing Company) and one cosmetics company (SaiGon Cosmetics Corporation).

Of these six companies, two are listed on the stock exchange, three are limited companies and one is a private company. These companies employ 300-800 people and have capital stocks of around VND 10 billion (equivalent to approximately USD 600,000). They have been in business for 7-30 years. Their export revenues make up 30-100% of total revenues. Haicatex’s
The qualitative data was gathered through in-depth interviews undertaken at company headquarters in the centres and suburbs of Hanoi and Ho Chi Minh. Interviews were conducted with two chief executive managers, three vice managers and five heads of import/export departments, for a total of eight interviews. Each interview lasted around two hours.

5.1.2 Pre-test examinations

Based on the content, design and structure of items in the conceptual framework, as well as the empirical work from the pilot studies, a preliminary questionnaire was created. The questionnaire, which included structured and Likert-type questions, was modified after it had been distributed to some scholars for comment. The Likert-type questions were developed to avoid the problem of constant method bias (Lindell & Whitney 2001, Millsap 1990, Scullen 1999, Williams and Anderson 1994, Podsakoff et al. 2003). Therefore, no semantically different scales were used to get rid of the situation that some or all of the responses are collected with the same type of scale. These modifications were focused on verbal clearance and sentence format in order to get the most feedback from respondents. Problems regarding terminology, instruction, question relevance, scales, and volume were then addressed.

A pre-test survey of participants in an executive MBA programme was undertaken to check the identification and validity of the questions. 32 questionnaires were filled in by managers from many industries, 29 of which were used to revise the questionnaire on the basis of the respondents’ positions. The questionnaire was designed to collect information on the firm, technologies, human resources, networks and marketing, and how each of these aspects was associated with export activities in the firm in question. The questionnaires were designed for either the top manager of the company to fill out personally or to be directed to the person seen as the firm’s decision maker. Overall, these procedures led to some minor corrections in the questionnaire, including a strengthening of the explanation, the addition of a few items in some constructs, and the inclusion of additional variables to act as control and independent variables. The final format of the questionnaire was tested on five representatives of exporting firms, at which point no further problems were detected.
40 questions were developed, but only 32 of them were directly linked to the theoretical model. The questionnaires and introduction letter were printed on eight pages in colour. The original questionnaire was in English, but was translated into Vietnamese as English is not well understood by managers in the Vietnamese marketplace. Reverse-translation into English was used to ensure consistency.

5.2 Operationalisation of variables and constructs

The final operationalization of variables is specified in this section.

5.2.1 Dependent variables: Export performance constructs

Following Cavusgil and Zou (1994), Zou et al. (1998), Kotabe and Czinkota (1992), and Samiee and Walters (1990), this study uses two separate dimensions of performance to capture the different operational outcomes associated with export activities. The first dimension pertains to economic performance (EEP), including efficiency as reflected by the profitability of the export activities, and effectiveness as export shares or growth in export sales (Kirpalani and Macintosh 1980, Samiee and Walters 1990). In order to stay consistent with previous research, efficiency is measured as export sales profitability relative to profitability of total sales (Profitability), and effectiveness is measured as export sales relative to total sales (ExportIntensity) and through Likert-scales on profit growth (Growth) for one year. The second dimension is strategic export performance (SEP), which is expressed through the following three items: fulfilment of the strategic objective of gaining footholds in export markets (StrategicFoothold); fulfilment of the strategic objective of increasing awareness of the product/company in foreign markets (StrategicAwareness); and the fulfilment of strategic objective of responding to international competitive pressure (StrategicResponseCompetitive).

5.2.2 Mediated variables: Upstream competitiveness (UC) and downstream competitiveness (DC) constructs

International activities are categorized based on Porter (1985), Welch and Luostarinen (1993), Kuada and Sorensen (1999), George et al. (2002), and Naldi and Zahra (2005). Internationalisation involves upstream activities, such as purchasing, inbound logistics and operations, or downstream activities, such as marketing and sales. To measure upstream and
downstream competitiveness, this study focuses on seven items developed from the export performance literature, using five-point Likert scales.

For **upstream competitiveness** (*Upstream competitiveness*), the study evaluates the strength and level of competitive advantages that a firm holds (Chang 1990). Using a five-point Likert scale, managers were asked to evaluate the firm’s capabilities compared to its main domestic competitors. These capabilities are those that the literature indicates have a positive effect on export performance – product quality and price (Cavusgil and Nevin 1981; Moon and Lee 1990), production technology (Keng and Jiuan 1989, Reid 1983), production efficiency (Keng and Jiuan 1989) and product applicability (Cavusgil and Nevin 1981, Moon and Lee 1990). Therefore, this construct was separated into four indicators: use of cutting-edge technology (**TechBasedProduct**), conduct of operations to ensure competitive prices and high quality products (**PriceQuality**), focus on efficiency in production (**ProductionEfficiency**) and conduct of operations to ensure user-friendly product applicability (**ProductApplicability**).

**Downstream competitiveness** (*Downstream competitiveness*) covers sustaining and safeguarding the firm-level international competitive advantage in sales and marketing. Based on Naldi and Zahra (2005), Cavusgil and Nevin (1981), Chang (1990), Zaheer (1995) and Matsuo (2000), this construct was separated into four indicators: a competitive advantage in marketing and sales in *physically* distant countries (**PhysicalDistant**), a competitive advantage in marketing and sales in *psychically* distant countries (**PsychicDistant**), a competitive advantage in marketing and sales in countries with nationalistic or illegitimate economic policies (**Nationalism**), and a competitive advantage in marketing and sales in countries characterised by an economic policy that discriminates against foreign firms (**DiscriminationToForeign**).

### 5.2.3 Independent variables

Factors related to a firm’s international strategy received considerable attention. Within the scope and dimension of this study, independent variables were developed on the basis of existing literature (Katsikeas et al. 1996, Aaby and Slater 1989, Madsen 1987, Walters and Samiee 1990, Lim 2003).
The technology importing variables were machinery importing (MachinerySoftwareImport), material importing (MaterialImport), international licensing (LicenseImport), and foreign technical staff recruitment (ForeignStaffRecruit). These variables are measured as percentages. The employment of sales staff with international business-experience (IBExperienceStaff) was specified as the percentage of total sales staff with more than five years of experience in international business. The employment of sales staff with language proficiency (LanguageSkillStaff) was measured as the percentage of total sales staff with foreign language skills on an intermediate level.

Use of the Internet (InternetUse) was measured as the extent to which firms use the Internet for sales and business transactions. This item was assessed using a five-point Likert scale. The undertaking of business trips (BusinessTrip) was measured as the number of trips per year taken by managers and IB-related staff.

Use of governmental linkages (GovernmentLinkagesUse) was measured as the extent to which firms use governmental agencies and networks to promote export activities. This item was assessed on a five-point Likert scale.

Collaboration (Collaboration) between firms was measured as the extent to which firms collaborate with other firms to promote technological improvements, financial strength, foreign market access and co-production. This item was assessed using a five-point Likert scale. Export-oriented networking activity (NetworkMeetings) was analyzed as the annual number of export-oriented business association meetings attended by firm representatives and reflects the firm’s commitment to networking with the purpose of spotting international business opportunities.

5.2.4 Control variables

In line with previous studies (Delios and Beamish 1999, Geringer et al. 2000, Grant et al. 1988), this study controls for the effects of OEM insertion, size, ownership structure and industry in order to avoid the effects of variables that are absent from the model.
The strategic considerations of an OEM subcontractor incorporated in a GVC are likely to differ fundamentally from those of an independent exporter (Pham et al. 2008, Bazan and Navas-Aleman 2004, Cavusgil and Zou 1998). An OEM subcontractor tends to be in a locked-in situation with limited strategic scope for seeking out new markets, customers, or products. This situation can be translated into fulfilment of short-term economic goals. In contrast, the independent exporter has traded off short-term sales and profit gains for long-term strategic market opportunities, including the possibility to achieve considerable bargaining power (and concomitant monopoly rents) in international markets. Therefore, OEM insertion companies are expected to have higher economic performance than independent exporters, but lower strategic export performance. OEM attachment was measured as a dummy variable \( DOEM \) in which more than 60% of firm revenues are extracted from global buyer contracts and under the buyer’s specification of inputs and designs.

Larger companies are thought to possess an above-average ability to seize profits, to leverage in a lower cost of capital, to diversify their operation portfolios and to internationalise (Cavusgil 1984, Axinn 1985/2002, Bonaccorsi 1992, Calof 1994). The underlying argument is that size is a proxy for the availability of organisational resources (Pedersen and Petersen 1998), a decisive factor for international expansion (Cavusgil 1984, Johanson and Vahlne 1977, Johanson and Wiedersheim-Paul 1975). Additionally, larger firms will be more able to expand resources, and avoid risks and uncertainty, than smaller ones, and may have more bargaining power (Erramilli and Rao 1993). Therefore, larger firms will be more likely to expand internationally than small firms. Firm size (\( Size \)) is measured as a logarithmic function of the total number of employees. Ownership structure was measured as a dummy coding (\( DOwnership \)) depending on whether the firm was an SOE or a privately-owned company.

Capital structure is among the most influential determinants of a firm’s financial performance (Jensen 1989). Higher debt is considered as financial leverage under which a profitable or lost firm’s performance might be accelerated or decelerated. To stay consistent with previous research (Delios and Beamish 1999, Geringer et al. 2000), this study controls for the effect of the debt ratio (\( debt \)) as measured by total debts (including long-term and short-term debts) to total assets.
To control for industry, Porter (1990) attributes the success of particular industries in certain countries to specific national conditions. This conceptualization is based on the notion that national context is a determinant of firm-specific advantages. Therefore, firms that are embedded in a specific industry will have diversified results in terms of export performance. Some studies have addressed the importance of an industry’s technological intensity or manufacturing depth on export performance (Cavusgil and Zou 1994, Holzmuller and Stottinger 1996, Ito and Pucik 1993). While it seems that firms in more complex, technologically oriented industries have better export performance, more research is needed to derive a more robust conclusion. In terms of operationalisation, this variable was measured as a dummy coding (DIndustry) depending on whether the firm is in a low-tech (textile and garment) or high-tech sector (mechanical and electronics). For variables that are numerical or objective, data were taken from firms’ financial statements, which served as complementary secondary sources.

The conceptual model with elaboration of constructs, variables and indicators is summarized in Figure 5.1 (next page). As was the case with Figure 4.1 two version of the model are shown: one for economic export performance as the dependent variable (Figure 5.1a) and one strategic export performance (Figure 5.1b).
Figure 5.1: Conceptual models – elaboration of constructs, variables and indicators

Model 5.1a: Dependent variable: economic export performance

Model 5.1b: Dependent variable: strategic export performance

Note:
5.3 Methodology

This section offers a theoretical discussion of the research design and validity conditions. In addition, techniques for choosing a statistical tool are discussed, before the estimation methods are presented.

5.3.1 Research design and validity conditions

Research designs have three distinct purposes: exploration, description and causal investigation. The main focus of this study is to test hypotheses that indicate relationships between dependent and independent variables. Since this research aims to undertake a cross-sectional investigation, different, specified forms of validity need to be considered: internal, external, statistical and construct validity (Cook and Campbell 1979). The research design must be without serious errors that can cause low internal validity, while it must also develop variables and measuring instruments that are well-defined, ensuring high validity. Therefore, the following points were considered and have been maintained throughout the study:
- **Construct validity**, which refers to the extent variables are successfully operationalised and represent the context,
- **Internal validity**, which refers to the ability of the sample to prove a hypothesized relationship between variables, and
- **External validity**, which is the representative level of the sample for the whole population (Balnaves and Caputi 2001).

5.3.2 Statistical tools and estimation method

This research utilizes structural equation modelling (SEM) in order to examine the relationships between the constructs and variables in the research models. SEM uses a combination of factor analyses and path analyses to explore multiple dependent relationships among variables and constructs, in which the latter are represented by latent factors (Joereskog and Goldberger 1975). SEM is a method of performing confirmatory factor analysis, which is appropriate in this research because it draws upon existing constructs and aims to examine the relationships among these constructs. SEM allows the researcher to answer a set of interrelated research questions by simultaneously modelling the relationships among multiple dependent and
independent constructs while assessing the measurement model of the latent constructs. Therefore, the basic advantage of SEM is its usefulness in testing theoretical models.

SEM is particularly valuable because it allows researchers to do more than simply test the significance of relationships. It also allows researchers to assess the overall validity of a proposed model by assessing its fit. SEM not only seeks to explain variance, but it also explains covariance. Therefore, fit is assessed by how well the structural equations can be used to reproduce the observed covariance among measured items. The closer the estimated covariance comes to the observed covariance, the better the fit (Hair et al. 2005).

In this research, AMOS version 6.0 is used because of its advantages in measuring SEM. This aspect of AMOS is important in this research because of the combined use of latent and emerging constructs, and the use of measures with different scales (numeric versus Likert scale). When confronted with missing data, AMOS performs state-of-the-art estimation by using Full Information Maximum Likelihood method instead of relying on ad-hoc methods, such as list-wise or pair-wise deletion, or mean imputation. The program can analyze data from several populations simultaneously, and it can estimate means for exogenous variables and intercepts in regression equations. Multiple models can be fitted into a single analysis. Amos examines every pair of models in which one model can be obtained by placing restrictions on the parameters of the other. The program reports several statistics appropriate for comparing such models, and it provides a test of univariate normality for each observed variable as well as a test of multivariate normality and attempts to detect outliers. Furthermore, Amos accepts a path diagram as a model specification and displays parameter estimates graphically on a path diagram. Path diagrams used for model specification and those that display parameter estimates are of presentation quality (Arbuckle and Wothke 1999/2005).

5.4 Data collection

5.4.1 Key techniques and interviewing methods

The data collection process went through several pilot study phases prior to the final cross-sectional survey. Several interview methods were applied:
• **Pilot studies**: During the pilot studies, in-depth interviews were used to obtain information. Interviews were conducted in conjunction with such data gathering techniques as informal interviewing and documentary recording. Key informants (with insights about their company’s strategies) from six companies were chosen for in-depth interviews.

• **Conduct of interviews**: A protocol of questions was used during interviews to keep the informants on track. The interviews were conducted using a semi-structured interview guide. In addition to the interviews, public documents (such as annual reports, newspaper articles, press releases, and company magazines) and the most important firms’ financial statements were scanned, which assisted with data triangulation. The reliability of the data was continually checked by comparing information from the interviews with secondary data sources.

Given the outcome of the pilot studies, a preliminary questionnaire was formulated. The questionnaire included both numerical and Likert-type perceptual questions. These were modified after they were evaluated by colleagues. The modification focused on verbal clearance and sentence format in order to ensure maximum feedback from respondents. Problems regarding terminology, instruction, relevance of questions, scales and volume were then addressed. Subsequently, a pre-test survey was carried out among members of an Executive MBA program to check the identification and validity of the questions. The final, revised questionnaire was targeted at the general managers of the sample companies, who could either answer directly or point it to a colleague involved in the company’s overall strategy formulation. The questionnaire was filled out through face-to-face interviews conducted by the author or her research assistants. Prior to an interview, the interviewer contacted the respondent to make sure that the latest two years’ financial statements would be available during the interviewing process. These documents were kept by the interviewer for the purpose of data triangulation and data checks.

### 5.4.2 Timeframe

Two groups of research assistants were established in Hanoi and Ho Chi Minh for data collection. Each group consisted of four people with interviewing skills and knowledge of this particular subject. Each group took part in two training courses held by the author to make sure that they fully understood the questions and would devote sufficient time to the interviews. Throughout the data collection process, the researcher was involved as coordinator and data
The data collection process was divided into three stages to ensure an appropriate time schedule, to monitor research assistants’ work tasks, and to ensure appropriate interaction between the researchers and the respondents (refer to Table 5.1).

**Table 5.1: Timeframe and tasks in the survey process**

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Activities</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 December 2006 - 28 February 2007</td>
<td>Collect data from one main source (Customs Office) and synthesize with two others (VCCI and local trade department)</td>
<td>Time lag due to traditional holiday and unavailability of the required source</td>
</tr>
<tr>
<td>1 March - 31 March 2007</td>
<td>Select and train research assistants</td>
<td>Select qualified researchers with sufficient knowledge and skills; Provide training course</td>
</tr>
<tr>
<td>1 April – 30 June 2007</td>
<td>Data collection process: Interaction between researcher, research assistants and respondents</td>
<td>Call respondents if answers are not understandable or comparable to others</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Provide assistance for research assistants when necessary</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Divided into three stages (below) to ensure the time requirement, research involvement and question correction; Modification if necessary</td>
</tr>
<tr>
<td>Stage 1</td>
<td>Submit 10 fully answered questionnaires right after they have been finished in each region</td>
<td>Revise questionnaires if necessary and check the time schedule</td>
</tr>
<tr>
<td>Stage 2</td>
<td>Submit 30 fully answered questionnaires right after they have been finished in each region</td>
<td>Ensure time schedule and tasks of research assistants</td>
</tr>
<tr>
<td>Stage 3</td>
<td>Submit remaining fully answered questionnaires</td>
<td></td>
</tr>
<tr>
<td>1 July - 31 July 2007</td>
<td>Data coding using appropriate software package</td>
<td></td>
</tr>
<tr>
<td>1 August – 1 December 2007</td>
<td>Data analyses</td>
<td></td>
</tr>
</tbody>
</table>
5.4.3 Sampling strategy

No comprehensive list of independent, unlisted companies in Vietnam is available from either the Ministry of Planning and Investment or the Ministry of Commerce, which are the main governmental administrative agencies. The sampling frame was therefore extracted from data available from the Customs Office, which manages export and import activities. By imposing a code for import and export activities, all companies with operations abroad can be identified. In Vietnam, more than 90% of these companies are headquartered in Hanoi and Ho Chi Minh. Therefore, the geographical sample was derived from these two regions. There are 6,626 enterprises with foreign activities in Hanoi and 12,131 enterprises in Ho Chi Minh. However, this list may include firms that only import, which is not relevant for the purposes of this study. Therefore, the list was refined by obtaining lists of exporting firms from the Hanoi and Ho Chi Minh trade departments, and from the Vietnam Chambers of Commerce and Industry in the two regions. This data was complemented by website visits, phone calls, and emails to ensure that the firms remaining on the data list did, in fact, export. After refining the data set, the sample was reduced significantly to 3,413 and 6,647 firms in Hanoi and Ho Chi Minh, respectively. These lists covered over 12 industries and were therefore split into two groups: low technology and high technology. Of the main exporting groups in the low-tech industries (including textiles and garments, handicrafts, shoes, toys and stationeries, raw foods and processing foods), the textiles and garments industry was selected as it constituted the largest share of firms (70%) and export value (approximately 65%). Table 5.2 presents the response rates of each industry in the two geographical locations.

Table 5.2: Random sample selection and response rate

<table>
<thead>
<tr>
<th>Industry</th>
<th>Population</th>
<th>Hanoi</th>
<th>Ho Chi Minh</th>
<th>Random select sample</th>
<th>Number of responses</th>
<th>Response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELECTRONICS</td>
<td>237</td>
<td>115</td>
<td>122</td>
<td>104.6</td>
<td>67</td>
<td>0.64</td>
</tr>
<tr>
<td>MECHANICAL</td>
<td>209</td>
<td>110</td>
<td>99</td>
<td>73.15</td>
<td>50</td>
<td>0.68</td>
</tr>
<tr>
<td>GARMENT &amp; TEXTILE</td>
<td>439</td>
<td>72</td>
<td>367</td>
<td>122</td>
<td>114</td>
<td>0.86</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>885</strong></td>
<td><strong>297</strong></td>
<td><strong>588</strong></td>
<td><strong>309.75</strong></td>
<td><strong>231</strong></td>
<td><strong>0.74</strong></td>
</tr>
</tbody>
</table>
The main high-tech exporting group was concentrated in the electronic and mechanical industries, so these two industries were sub-selected. In total, the data set of these three selected industries includes 885 enterprises, of which textiles and garments account for 439 enterprises. By random selection, the final sample was pared down to 309 enterprises, which were approached for the survey.

In total, 231 respondents provided the data for the selected dependent, independent and control variables. This sample is considered to be comparable to those generally utilised in similar studies (Coviello and McAuley 1999, Shoham et al. 2002). The response rate of 75%, which is valid, compares favourably with similar studies (Coviello and McAuley 1999). Of the 231 returned questionnaires, two were rejected due to missing answers for more than 20% of the questions, three were rejected due to missing values for the most critical variables and constructs, which left 226 usable questionnaires.

For objective and numerical questions, the answers from respondents were compared with the actual figures available in financial statements. If the two figures were inconsistent, data was taken from the financial statements. For perceptual questions, respondent answers were based on Likert-scale indications. A common method bias test was used to check for bias in the respondent’s answers.

5.5 Analysis

This section presents all of the analyses. First, descriptive statistics of the variables for screening are discussed. Second, the analysis follows the test of multivariate assumption in SEM. Third, model fit, validity and reliability are carefully described before the results of the hypothesis testing are presented.

5.5.1 Data screening

In general, SEM requires a larger sample relative to other multivariate techniques (Hair et al. 2005). Guidelines for choosing sample size vary based on the analysis procedure and model characteristics. Five considerations affect the requirements for sample size:

- Multivariate distribution of the data
- Estimation technique
- Model complexity
In general, SEM models containing five or fewer constructs, each with more than three items (observed variables), can be adequately estimated with samples as small as 100-150. A highly accepted ratio is ten observations for every variable (Hair et al. 2005). In this case, the number of variables in the model is 22, so that the number of observations – 226 – is considered adequate.

Good quantitative analysis involves making sense of the collected data. To achieve this, researchers must be aware of possible problems that can arise when they finish collecting data. As indicated below, these problems were examined and remedied where necessary to ensure that the data serves as reasoned evidence and provides clues for interpretation.

5.5.1.1 Non-response bias

The first problem is non-response bias. If those who respond to a survey differ substantially from those who do not, we cannot infer that the data collected from a sample can be generalized to the population. A standard test of non-response bias was therefore undertaken. In research literature, late respondents are often assumed to be similar to non-respondents (Armstrong and Overton 1977). The main argument is that a person who responds in a later phase following extra encouragement and stimuli is expected to be similar to someone who declines to respond. 78% of respondents answered in the first phase of the study. The remaining 22% of responses was tested with respect to means equality. A T-test was conducted with a null hypothesis of no mean differences between the two groups. As Table 9.1 (Appendix B) indicates, there is no evident difference between the two groups based on significant level of t. Therefore, non-response bias is unlikely to be a problem in this sample.

5.5.1.2 Missing data

Multivariate analysis requires a more structural and rigorous examination of the data because the effect of missing data can become significant and lead to results that are biased. Although data checking is always time consuming, it is necessary – a situation that researchers often overlook.
The effect of some missing data problems are acknowledged and should be directly accommodated by a research plan. More often, the missing data processes, particularly those that are a result of respondent actions, are rarely known in advance. The most obvious effect of missing data is the reduction of the sample available for analysis. Furthermore, any statistical results based on data with a non-random missing data process could be problematic.

In line with Hair et al. (2005), four steps for identifying missing data are applied in this study:

**Step 1: Determine the type of missing data**

Due to some errors in data entry and personalities of respondents, some data are missing from the sample. These missing data cannot be ignored. Therefore, the researcher proceeded to Step 2.

**Step 2: Determine the extent of missing data**

The number of variables is 32, and 0.4% to 5.3% of the data is missing. The general rule is that missing data under 10% can generally be ignored except when missing data occurs in a specific, non-random fashion. Therefore, the observations must be checked to see whether the missing data has a non-random characteristic. Table 9.2 in Appendix B provides a descriptive report, summarizing the absolute number and percentages of variables with missing data.

**Step 3: Analyze the randomness of missing data**

The data have been divided into two sub-samples for each variable: a sample with no missing data and a sample with missing data. The two subsamples are then compared to identify any differences in terms of the remaining metric variable. Once the comparisons have been made for all variables, new sub-samples are formed based on the missing data for the next variable and the comparisons are performed again on the remaining variables. For this sample, no systematic missing data processes show a significant difference from the sample that was not missing data. Therefore, it can be concluded that the missing data occurs randomly (see Appendix Table 9.3).

**Step 4: Select imputation method**

Since the level of missing data is less than 10% with a random pattern, any computation using the list-wise, pair-wise or mean imputation methods is acceptable. As SEM tends to perform best with the list-wise method, this was the method chosen.
5.5.1.3 Outliers

Outliers are observations with a unique combination of characteristics identifiable as distinctly different from the other observations (Hair et al. 2005). Problematic outliers – those that are far from the representative population – make the test biased and can seriously distort statistical results.

One way to detect outliers is by running a simple box plot, through which some variables can be found that have a significant number of outliers. In this study, there is an outlier pattern that is concentrated in such variables as LicenseImport and ForeignStaffRecruit. Figure 9.1 in Appendix B presents the outliers.

5.5.2 Testing the assumptions of multivariate analysis

While the earlier steps for checking for missing data and outliers aim to clean the data, the next step is to test the data’s compliance with multivariate analysis. This step helps in the interpretation of the results in terms of statistical significance.

5.5.2.1 Normality

Normality is the basic assumption of the multivariate method, and means that each variable in the analysis must be normally distributed. If the variation departs significantly from normality, the statistical results are invalid because of the use of F and T statistics. Using characteristics of the statistic level of distributions, such as skewness and kurtosis, some non-normality distribution becomes apparent. These variables are highlighted in bold in Appendix B Table 9.4.

Four variables show a problem of non-normality – LicenseImport, ForeignStaffRecruit, NetworkMeetings and BusinessTrip. LicenseImport and ForeignStaffRecruit, which show a high level of outliers, also have non-normal distributions. These variables have been deleted, as the statistics relating to these variables appear problematic and inconsistent.

5.5.2.2 Homoscedasticity

Homoscedasticity refers to the assumption that dependent variables exhibit equal levels of variance across the range of independent variables (Kline 2005). Homoscedasticity is expected
because the dispersion (variance) of the dependent variables should not be located in the concentrated area of independent values. Applying Levene’s Test to this study, the results indicate some heteroscedasticity in some variables, which are shown in bold in Appendix B Table 9.5. Therefore, these variables have been transformed to be homoscedastic to fit the requirements of the multivariate test.

5.5.2.3 Linearity

Another important condition of multivariate technique is the co-relational measures of associations, which must be linear. It is important to note that correlations represent only the linear association between variables – nonlinear effects are not represented in the correlation value. This reduction in the results may lead to an underestimation of the actual strength of a relationship (Hair et al. 2005).

A graphical test for non-linear relationships shows that there are some variables – such as LicenseImport and ForeignStaffRecruit – that have problems of heteroscedasticity. In addition, outliers distribute non-linearly, making these variables the first candidates for deletion.

5.5.3 Transformation to achieve normality, homoscedasticity and linearity

The purpose of data transformation is to correct for the unreliability of statistical results and improve the strength of relationships among variables. In this study, data transformation was based on theoretical assumptions and on variable figuration, which was conducted following the following manner.

Variable deletion: LicenseImport and ForeignStaffRecruit were deleted, as there is insufficient information on these variables, which leads to significant problems with outliers, non-normality and heteroscedasticity.

Variable transformation: Some variables show positive skewness, such as NetworkMeetings and BusinessTrip. Data for these variables have therefore been transformed to a logarithm. Three additional variables – GovernmentLinkagesUse, Collaboration and PsychicDistant – show heteroscedasticity. Since these variables are proportional, they were subjected to an arcsin transformation. The variable MachinerySoftwareImport, which also has a problem of
heteroscedasticity, was transformed to a logarithm, as it is independent and has a function of proportional change. After deletions and transformations, the above variables were checked to see if the problems persisted. All remedies proved effective in that there were no more deficiencies related to multivariate prerequisites.

5.6 Descriptive statistics

Table 5.3 presents the descriptive statistics for the entire sample as well as the mean values of the variables in the analysis. Total employment in these firms ranges from 12 to more than 20,000. In terms of performance, the sample includes firms with annual sales ranging from VND 40 million to over VND 200 billion, with an average of VND 11 billion. Most firms in this data set operate as limited or privatized firms. Imported machinery makes up one-third of total assets. Likewise, one-third of total operating costs are for imported materials. These firms have a high level of international business (hereafter IB) staff, with these employees equalling 72% of the total sales staff on average. Exporting represents a significant part of the firms’ revenues and profits, with export revenue and export profitability equalling 50% of total sales and 50% of export sales. With their strategic objectives focused on product marketing, these firms have partly succeeded in gaining a foothold, responding to competitiveness and increasing their awareness in foreign markets. Goal fulfilment averages approximately 2.8 on scale of 1 to 5.

Table 5.3: Descriptive statistics of the sample

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>OwnSStructure</td>
<td>226</td>
<td>2</td>
<td>10.0</td>
<td>5.6</td>
<td>1.4</td>
</tr>
<tr>
<td>Employee</td>
<td>222</td>
<td>12</td>
<td>21,000</td>
<td>840.6</td>
<td>1,954.7</td>
</tr>
<tr>
<td>Total Asset (VND)</td>
<td>222</td>
<td>150</td>
<td>448,000,000,000</td>
<td>7,717,290,000</td>
<td>37,615</td>
</tr>
<tr>
<td>Revenue (VND)</td>
<td>224</td>
<td>400</td>
<td>260,000,000,000</td>
<td>11572590000</td>
<td>33,117</td>
</tr>
<tr>
<td>Export Revenue (VND)</td>
<td>223</td>
<td>0</td>
<td>200,000,000,000</td>
<td>5,202,220,000</td>
<td>17,240</td>
</tr>
<tr>
<td>MachinerySoftwareImport</td>
<td>225</td>
<td>0</td>
<td>100.0</td>
<td>38.1</td>
<td>28.5</td>
</tr>
<tr>
<td>MaterialImport</td>
<td>222</td>
<td>0</td>
<td>95.0</td>
<td>32.6</td>
<td>27.1</td>
</tr>
<tr>
<td>IBEExperienceStaff</td>
<td>224</td>
<td>0</td>
<td>78.0</td>
<td>72.1</td>
<td>45.8</td>
</tr>
<tr>
<td>LanguageSkillStaff</td>
<td>225</td>
<td>0</td>
<td>100.0</td>
<td>32.5</td>
<td>30.3</td>
</tr>
<tr>
<td>NetworkMeetings</td>
<td>225</td>
<td>0</td>
<td>100.0</td>
<td>5.1</td>
<td>10.3</td>
</tr>
<tr>
<td>GovernmentLinkagesUse</td>
<td>223</td>
<td>0</td>
<td>5.0</td>
<td>1.1</td>
<td>1.6</td>
</tr>
<tr>
<td>BusinessTrip</td>
<td>223</td>
<td>0</td>
<td>300.0</td>
<td>48.3</td>
<td>82.8</td>
</tr>
</tbody>
</table>
5.7 Multivariate testing

5.7.1 Multicollinearity detection

The main concern related to independent variables is multicollinearity (Diamantopoulos et al. 2001). Therefore, the variance inflation factors (VIF) must be calculated and they must not exceed a value of five to be acceptable for the model (Belsley 1990). In this study, the test was based on a regression of individual independent variables as related to export intensity.

The results show that there is no multicollinearity problem with the independent variables. However, the variable LanguageSkillStaff appears statistically insignificant, with a sig p of 0.816. When this variable was excluded, the model fit increased (adjusted $R^2$ of 0.28). Therefore, this variable had very little explanatory power and was deleted (for detailed coverage of multicollinearity detection, refer to Table 9.6 in Appendix B).
5.7.2 Assessing measurement model validity

Several measurement models were tested for this study. The first measurement model to be tested was a prior measurement model, in which:

- **Model A** denotes a full model with the economic export performance construct as a dependent variable, and
- **Model B** denotes a second full model with the strategic export performance construct as a dependent variable.

**First round**
Models A and B were re-run and showed acceptable results with above-average indications for goodness of fit. Fit indications are important to assessing the model, as they show how well a specific model reproduces the covariance matrix among the measured items. A valuation of fit provides an assessment of the accuracy of the theoretical model.

However, for both models A and B, one item has very low factor loading, namely *DiscriminationToForeign* (0.042 and 0.044 for models A and B, respectively). As it can be safely concluded that this variable’s contribution to the construct is marginal, it was deleted from the construct.

**Second round**
Both of the full models were re-run after deleting the *DiscriminationToForeign* indicator and showed further improvement in the fit indices. However, another indicator showed low factor loading, namely *TechBasedProduct* (0.29 and 0.291, respectively). This indicator was then deleted from both models.

**Third round**
Re-running the two measurement models showed a further improvement in the fit indices. Model A showed a high level of goodness of fit based on three criteria: as a basic requirement of chi-square and CMIN/DF, the absolute indices of RMSEA, and the incremental indices of NFI, CFI and TLI. For detailed discussions of these criteria, see Table 9.5 in Appendix D, which provides in-depth coverage of measures and acceptance thresholds. All measures
satisfied the conditions of good fit. The model not only specifies sample and population but also shows high validity in terms of measurement.

As the fit indices for Model B were good, the modelling process could be finished at this point. However, further inspection of the measurement model was conducted with the intention of further improving the model’s fit.

Table 5.4: Modelling process and goodness of fit improvements

<table>
<thead>
<tr>
<th>Round</th>
<th>Model</th>
<th>Goodness of fit indices</th>
<th>Basic indices</th>
<th>Absolute indices</th>
<th>Incremental indices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>( \chi^2 )</td>
<td>CMIN/DF</td>
<td>RMSEA</td>
</tr>
<tr>
<td>First</td>
<td>A</td>
<td>411.6</td>
<td>2.8</td>
<td>0.09</td>
<td>0.80</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>338.1</td>
<td>2.2</td>
<td>0.06</td>
<td>0.78</td>
</tr>
<tr>
<td>Second</td>
<td>A</td>
<td>382</td>
<td>2.9</td>
<td>0.08</td>
<td>0.82</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>290.4</td>
<td>2.2</td>
<td>0.06</td>
<td>0.79</td>
</tr>
<tr>
<td>Third</td>
<td>A</td>
<td>224.2</td>
<td>1.9</td>
<td>0.05</td>
<td>0.92</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>209.1</td>
<td>2.0</td>
<td>0.05</td>
<td>0.90</td>
</tr>
</tbody>
</table>

In particular, close attention was paid to the dependent construct of the research model. StrategicAwareness had low factor loading (0.43) and was subsequently deleted to improve fit. With a justification in the theoretical base, this indicator was removed from the construct, leaving only two satisfying candidates. The deletion led to a significant improvement of fit in model B, as seen in Table 5.4.

5.7.3 Construct validity

**Construct validity** is the extent to which a set of measured items actually reflects the theoretical latent construct that they are designed to measure. Therefore, it deals with the accuracy of measurement. Construct validity provides evidence that the measures taken from a sample represent the actual “true score” of the population (Hair et al. 2005).
<table>
<thead>
<tr>
<th>Model</th>
<th>Indicator</th>
<th>Factor loading</th>
<th>Item reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>DC</td>
<td>UC</td>
</tr>
<tr>
<td>A</td>
<td>PhysicalDistant</td>
<td>0.75</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PsychicDistant</td>
<td>0.72</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nationalism</td>
<td>0.74</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ProductionEfficiency</td>
<td>0.74</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PriceQuality</td>
<td>0.69</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ProductApplicability</td>
<td>0.73</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ExportIntensity</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Profitability</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Growth</td>
<td>0.99</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Variance extract</td>
<td>0.54</td>
<td>0.52</td>
</tr>
<tr>
<td></td>
<td>Construct reliability</td>
<td>0.78</td>
<td>0.76</td>
</tr>
<tr>
<td>B</td>
<td>PhysicalDistant</td>
<td>0.74</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PsychicDistant</td>
<td>0.71</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nationalism</td>
<td>0.72</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ProductionEfficiency</td>
<td>0.73</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PriceQuality</td>
<td>0.69</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ProductApplicability</td>
<td>0.72</td>
<td></td>
</tr>
<tr>
<td></td>
<td>StrategicResponse Competitive</td>
<td>0.71</td>
<td>0.50</td>
</tr>
<tr>
<td></td>
<td>StrategicFoothold</td>
<td>0.74</td>
<td>0.55</td>
</tr>
<tr>
<td></td>
<td>Variance extract</td>
<td>0.52</td>
<td>0.51</td>
</tr>
<tr>
<td></td>
<td>Construct reliability</td>
<td>0.76</td>
<td>0.76</td>
</tr>
</tbody>
</table>

Construct validity consists of four important components: convergent validity, discriminant validity, nomological validity and face validity. For a detailed discussion of construct validity, see Table 9.7 in Appendix C, which lists validity components, measures and acceptance conditions of qualified constructs.

5.7.3.1 **Convergent validity** is the extent to which indicators of a specific construct “converge”, or share a high proportion of variance in common. Basically, there are three aspects to estimating convergent validity.
1. **Factor loading**: The acceptable range is 0.5 to 0.7.
For Model A, we have a loading range of 0.69 to 1.00, which is highly acceptable. The construct “Economic export performance” has the highest loading of 1, which means that 100% of the variation in an indicator is explained by this construct (Table 5.7). For Model B, the loadings of each construct were also satisfactory, ranging from 0.69 to 0.74.

2. The variance extract is the average squared of factor loading. If the variance extract is 0.5 or higher, it indicates adequate convergence.
For model A the variance extracts for three constructs range from 0.5 to 1.0, which suggests adequate convergence validity (Table 5.5). The variance extracts in three constructs for model B are above 0.5, which also indicates high convergence validity.

3. **Reliability** suggests that all the indicators represent the same latent construct. The rule of thumb is that the value for reliability needs to be at least 0.6, a rule that is satisfied for both model A (ranging from 0.76 to 1) and model B (0.68 to 0.76).
In terms of convergence qualification, these models seem to fit very well. All of their indices are highly satisfied based on the threshold requirement.

**Table 5.6: Cross-loading discriminant validity test**

<table>
<thead>
<tr>
<th>Cross loading indicator to construct</th>
<th>Model A Load</th>
<th>Cross loading indicator to construct</th>
<th>Model B Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>PriceQuality</td>
<td>&lt; Downstream competitiveness 0.040</td>
<td>PriceQuality</td>
<td>&lt; Downstream competitiveness 0.057</td>
</tr>
<tr>
<td>ProductionEfficiency</td>
<td>&lt; Downstream competitiveness 0.078</td>
<td>ProductionEfficiency</td>
<td>&lt; Downstream competitiveness 0.058</td>
</tr>
<tr>
<td>ProductApplicability</td>
<td>&lt; Downstream competitiveness 0.067</td>
<td>ProductApplicability</td>
<td>&lt; Downstream competitiveness 0.059</td>
</tr>
<tr>
<td>PhysicalDistant</td>
<td>&lt; Upstream Competitiveness -0.153</td>
<td>PhysicalDistant</td>
<td>&lt; Upstream Competitiveness -0.143</td>
</tr>
<tr>
<td>PsychicDistant</td>
<td>&lt; Upstream Competitiveness -0.032</td>
<td>Nationalism</td>
<td>&lt; Upstream Competitiveness -0.012</td>
</tr>
<tr>
<td>Nationalism</td>
<td>&lt; Upstream Competitiveness -0.024</td>
<td>PsychicDistant</td>
<td>&lt; Upstream Competitiveness -0.025</td>
</tr>
</tbody>
</table>

**5.7.3.2 Discriminant validity** is the next dimension that requires attention. Discriminant validity is the extent to which the construct is truly distinct from other constructs.
High discriminant validity indicates that a construct is unique and captures some characteristics that other constructs do not.

The two models show that there is a very low level of cross-loading among the indicators of upstream competitiveness and downstream competitiveness (Table 5.6). Therefore, it is safe to conclude that the indicators only represent their own constructs.

5.7.3.3 Nomological validity: This is a test to examine whether the correlations between the constructs in the measurement theory make sense. As the model does not specify any correlations among the constructs and because it focuses on causalities, this test was not necessary.

5.7.3.4 Face validity is the extent to which the content of the indicators matches the construct definition. This judgement is based on logic and common sense. As the indicators and constructs used in this test are developed on the basis of theoretical literature and related empirical studies, they qualify for face validity.

5.7.4 Test of common method bias

It is widely recognized that common method variance – such as variance that is attributable to the measurement method rather than to the constructs the measure represents – is an essential problem, particularly in the field of business (Lindell and Whitney 2001, Millsap 1990, Williams and Anderson 1994). Method bias threatens the validity of conclusions about the causal relationships between variables (Podsakoff et al. 2003). There are several potential sources of common method bias, including a common source or respondent, and bias produced by item characteristics, item contexts and measurement contexts (Podsakoff et al. 2003).

In this data set, the bias from item characteristics was mostly eliminated through the design of questionnaires, but other biases might have existed. Therefore, a procedure to check whether bias appears in the data set was necessary. An additional construct, called method bias factor (MBF), was added to the model. This construct was hypothesized to cause all items in the three existing constructs (upstream competitiveness, downstream competitiveness and export performance). Model A and Model B were then reconstructed with the additional factor and re-
run. All the goodness of fit indices showed a slight change from the original model. However, they still satisfied the conditions of good fit. It is important to note that all statistical coefficients pertain to the loading paths of the new factors are insignificant, and that the values of the coefficient estimates remained virtually unchanged (Table 5.7).

### Table 5.7: Result of common method bias test

<table>
<thead>
<tr>
<th>Path relationships</th>
<th>Coefficients</th>
<th>Sig.</th>
<th>Path relationships</th>
<th>Coefficients</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PriceQuality</td>
<td>&lt; MBF</td>
<td>.024</td>
<td>PriceQuality</td>
<td>&lt; MBF</td>
<td>.041</td>
</tr>
<tr>
<td>ProductionEfficiency</td>
<td>&lt; MBF</td>
<td>-.135</td>
<td>ProductionEfficiency</td>
<td>&lt; MBF</td>
<td>.163</td>
</tr>
<tr>
<td>ProductApplicability</td>
<td>&lt; MBF</td>
<td>-.030</td>
<td>ProductApplicability</td>
<td>&lt; MBF</td>
<td>.072</td>
</tr>
<tr>
<td>PhysicalDistant</td>
<td>&lt; MBF</td>
<td>-.206</td>
<td>PhysicalDistant</td>
<td>&lt; MBF</td>
<td>.142</td>
</tr>
<tr>
<td>PsychicDistant</td>
<td>&lt; MBF</td>
<td>.014</td>
<td>Nationalism</td>
<td>&lt; MBF</td>
<td>-.380</td>
</tr>
<tr>
<td>Nationalism</td>
<td>&lt; MBF</td>
<td>.391</td>
<td>StrategicResponseCompetitive</td>
<td>&lt; MBF</td>
<td>.543</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>StrategicFoothold</td>
<td>&lt; MBF</td>
<td>.494</td>
</tr>
</tbody>
</table>

Given the insignificance of the new parameters and the stability of the original parameters, there is no evidence to supports the hypothesis that the data suffers from common method bias. It is therefore safe to conclude that the measurement method does not bias the results.

#### 5.7.5 The mediation effect

The output from the AMOS tests indicates that the total effect of international strategies variables on export performance is the product of the effects of internationalisation strategies on particular upstream or downstream competitiveness and the effect of this competitiveness on firm performance. See Tables 9.7 and 9.8 in Appendix C, which provide details on total direct dissemination from AMOS. This result strengthens our argument that upstream and downstream international competitiveness are prerequisites for enhancing export performance.

#### 5.7.6 Comparison with competing models

Based on other theoretical and empirical studies, two competing models were constructed. The primary objective was to ensure that the proposed model not only has an acceptable fit, but that it also performs better than some alternate models.
**Competing model 1:** The export performance construct was split into two constructs (Diamantopoulos 1999, Zou et al. 1997) comprising two dimensions: economic performance and strategic performance. Therefore, overall export performance became a construct that reflects two subordinate constructs (Figure 5.2). The alternative model has goodness of fit indices that are much lower than the proposed model:

\[ \chi^2 = 375.1, \text{CMIN} = 2.89 \]

CFI=0.809

RSMEA=0.094.

Therefore, the original model has a significantly better goodness of fit than competing model 1.
**Competing model 2**: Competing model 2 was constructed with two mediation constructs: upstream competitiveness and downstream competitiveness, which have recursive paths from each other. Previous studies (Korhonen 1999, Kuada and Sorensen 2000, Karlsen et al. 2003) indicate that there is an interdependent relationship between upstream and downstream competitiveness in which upstream competitiveness can lead to downstream competitiveness and vice versa. Therefore, the model was specified with the recursive paths from both of these constructs (Figure 5.3 with *economic* export performance as a dependent construct). For information on strategic export performance, see Figure 9.2 in Appendix C.

**Figure 5.3: Competing model 2 – recursive paths between upstream competitiveness and downstream competitiveness**

<table>
<thead>
<tr>
<th>Export Facilitators</th>
<th>Export Determinants</th>
<th>Export Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Import of machinery and software</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Import of know-how and user rights</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Import of material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment of foreigners with technical expertise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conduct of business trips</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment of sales staff with int'l experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment of sales staff with foreign language proficiency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of Internet for day-to-day business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of governmental linkages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaboration with other firms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of formal business networks</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Competing model 2, with *economic* export performance as a dependent construct, has the following goodness of fit indices:

\[ \chi^2 = 448, \text{ CMIN} = 3.34 \]
CFI=0.801  
RSMEA=0.102

For competing model 2 with strategic export performance as a dependent construct, the following goodness of fit indices were displayed:

\[ \chi^2 = 450.54, \text{ CMIN} = 3.78 \]
CFI=0.70  
RSMEA=0.11

For the economic and strategic export performance variables, all goodness of fit indices for competing model 2 are significantly lower than for the proposed model.

The Chi-Square difference test was then used to see if competing model 2 fits the data equally well as the proposed model. The difference between the Chi-square statistics of the two models are 223.8 and 240.9 respectively for economic and strategic export performance construct. Thus, the Chi-square difference statistics is not statistically significant at 0.05. Therefore, we can conclude that the proposed model appears to have the best fit for this sample.

5.8 Tests of hypotheses

All variables in the model – including independent, dependent and controlled variables – were run simultaneously. The below section will present the result of the test in connection to the relationships among independent, mediated and dependent variables.

5.8.1 Basic test of upstream competitiveness

The results of both the economic and strategic export performance regressions were mostly supportive of the hypotheses.

However, in terms of “importing material” as a potential export facilitator, the hypothesis was rejected at a statistically significant level. The negative coefficient is the opposite of what could be expected, but consistent with two previous studies of firm internationalisation (Masaaki and Czinkota 1992, Sonia and Francisca 2005). The negative impact may indicate that firms need to import material in order to export have a basic comparative disadvantage vis-à-vis exporters from countries endowed with basic materials.
In contrast, the hypothesis pointing to the import of machinery as a potential export facilitator was supported. Export firms that are highly endowed with imported machinery, which in turn requires more advanced technologies than locally produced machinery, perform better in terms of upstream competitiveness than firms with limited imports of machinery.

The results also strengthen our arguments for firms in emerging markets. Emerging market firms focus on sustaining and developing differentiation and, in particular, cost advantages in relation to upstream value chain activities, such as operations (i.e. production of manufactured goods and services) (Pham et al 2008). Furthermore, these firms focus exclusively on strategies relating to upstream competitiveness. By importing machinery and software, their upstream competitiveness is boosted substantially (the estimated coefficients are at around 0.9).

The negative impact of material importing in both models is worth noticing. Although inputs are essential for firms wishing to move up the ladder of international competitiveness, the effective implementation of sourcing strategies is something that these firms seem to lack (see Tables 5.8 and 5.9).

5.8.2 Basic test of downstream competitiveness

Regardless of the type of dependent variable being measured, the results indicate a consistent pattern in which all of the hypotheses related to downstream competitiveness are supported. First, the hypothesis that firm managers recognise export opportunities and familiarize themselves with distant export markets by conducting business trips was confirmed. Furthermore, the data show a strong relationship between the availability of IB skills in the export firms and their downstream competitiveness, which indicates that the employment of experienced IB staff is crucial for firms selling and marketing their products and services in distant markets.

Table 5.8: Regression weights and significances of hypothesis testing for model A

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Hypothesized relationship</th>
<th>Standard estimate</th>
<th>Sig. level</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a</td>
<td>Upstream Competitiveness &lt; MachinerySoftwareImport</td>
<td>.90</td>
<td>***</td>
<td>Supported</td>
</tr>
<tr>
<td>H1c</td>
<td>Upstream Competitiveness &lt; MaterialImport</td>
<td>-.16</td>
<td>***</td>
<td>Contradicted</td>
</tr>
</tbody>
</table>
Hypothesis | Hypothesized relationship | Standard estimate | Sig. level | Finding  
--- | --- | --- | --- | ---  
H2b | Downstream competitiveness < IBExperienceStaff | .40 | *** | Supported  
H2a | Downstream competitiveness < BusinessTrip | .24 | *** | Supported  
H2d | Downstream competitiveness < InternetUse | .28 | *** | Supported  
H2g | Downstream competitiveness < NetworkMeetings | .31 | *** | Supported  
H2f | Downstream competitiveness < Collaboration | .18 | *** | Supported  
H2e | Downstream competitiveness < GovernmentLinkagesUse | .14 | ** | Supported  
H4a | Economic export performance < Downstream competitiveness | .25 | *** | Supported  
H4b | Economic export performance < Upstream Competitiveness | .32 | *** | Supported  

Statistical significance level: p<0.05: *; p<0.01: **; p<0.001: ***

Table 5.9: Regression weights and significances of hypothesis testing for model B

| Hypothesis | Hypothesized relationship | Standard estimate | Sig. | Conclusion  
--- | --- | --- | --- | ---  
H1a | Upstream Competitiveness < MachinerySoftwareImport | .90 | *** | Supported  
H1c | Upstream Competitiveness < MaterialImport | -.13 | ** | Contradicted  
H2b | Downstream competitiveness < IBExperienceStaff | .43 | *** | Supported  
H2a | Downstream competitiveness < BusinessTrip | .24 | *** | Supported  
H2d | Downstream competitiveness < InternetUse | .31 | *** | Supported  
H2g | Downstream competitiveness < NetworkMeetings | .30 | *** | Supported  
H2f | Downstream competitiveness < Collaboration | .19 | *** | Supported  
H2e | Downstream competitiveness < GovernmentLinkagesUse | .15 | ** | Supported  
H4b | Strategic export performance < Downstream competitiveness | -.07 | .53 | Not conclude  
H4b | Strategic export performance < Upstream Competitiveness | .36 | *** | Supported  

Statistical significance level: p<0.05: *; p<0.01: **; p<0.001: ***

In addition, the hypothesis that Internet use has a positive impact on international competitiveness was supported. This finding indicates that the Internet offers a useful way of overcoming cultural and physical distances in terms of marketing and selling products.
The remaining three “downstream” hypotheses – regarding use of government linkages, collaboration with other firms and use of formal business networks – were also supported by the data. Therefore, these specific export facilitation activities, irrespective of the extent to which they are used, are found to be instrumental in increasing downstream competitiveness (see results in Tables 5.8 and 5.9).

### 5.8.3 Test of upstream vs downstream competitiveness in relation to export performance

The results reveal that there are significant differences between the two dimensions of competitiveness in terms of implications for economic performance (see Tables 5.8 and 5.9). Interestingly, the test shows that upstream competitiveness has a greater impact on economic export performance than downstream competitiveness, insofar as the standard estimate level (in relation to economic export performance) of the former is higher than the latter. However, the test is not conclusive on whether upstream or downstream competitiveness has the greater effect on firms’ strategic export performance.

### 5.8.4 Supplemental test of controlled variables

For the five types of control variables, the test shows that OEM attachment and industry type have a significant impact on export performance (both economic and strategic).

### Table 5.10: Regressions of controlled variables on export performance

<table>
<thead>
<tr>
<th>Relationship</th>
<th>DOEM</th>
<th>DIndustry</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic export performance &lt;</td>
<td>.16</td>
<td>.11</td>
<td>*** Supported</td>
</tr>
<tr>
<td>Economic export performance &lt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategic export performance &lt;</td>
<td>.07</td>
<td>.02</td>
<td>.41 Not conclude</td>
</tr>
<tr>
<td>Strategic export performance &lt;</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.10 presents the results for the regression of controlled variables on dependent variables taken from the full model, in which all variables were included simultaneously. Since OEM insertion level and industry type have a significant impact on export performance, the sample was divided into two sub-samples to test the differing effects of these categories on upstream and downstream international competitiveness and, consequently, on export performance.
5.8.5 Test of OEM insertion

As the impact of OEM exporters and independent exporters on economic export performance varies significantly, this aspect was examined more closely. In particular, the way in which these factors influence the relationship between firms’ conduct of export facilitating activities and the resulting international competitiveness was of interest. The sample firms were divided into two subsamples based on the proportion of OEM export sales revenue. The chosen threshold was 60% of sales revenue extracted from global buyers, which provided a specification for inputs and design. Firms that are on or above that level are considered to be OEM exporters, while the remainder are considered to be independent exporters.

Prior to conducting this post hoc test, a cross-validation analysis was undertaken to check whether the two samples have different characteristics, which might have then affected the result of the factor analysis. Simultaneous factor analyses for the two groups were conducted and the chi-square difference between the two models (2.7) is not significant on any conventional level. Therefore, the post hoc model fit in the analysis of covariance structure is not problematic due to sample homogeneity.

Overall, independent exporters tend to execute their export facilitating activities more effectively than OEM exporters. The positive impact of these export facilitating activities on upstream and downstream competitiveness is greater for independent exporters than for OEM exporters. This suggests that these export facilitating activities are more important to independent exporters – or more effectively implemented by independent exporters – in terms of improvements in international competitiveness.

Competitiveness plays a central role in increasing OEM exporters’ economic performance. The result shows that competitiveness has a greater impact on economic export performance for OEMs than for independent firms. This finding, in tandem with the above, implies that while international competitiveness is important for OEM firms, the implementation of export facilitating activities to achieve this competitiveness seem less effective than it is for independent exporters.
### Table 5.11: Comparison of OEM versus independent exporters for model A

<table>
<thead>
<tr>
<th>Hypothesized relationship</th>
<th>OEM exporters</th>
<th>Independent exporter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Standard estimate</td>
<td>Sig. level</td>
</tr>
<tr>
<td>Downstream competitiveness &lt; IBExperienceStaff</td>
<td>.28</td>
<td>.01</td>
</tr>
<tr>
<td>Downstream competitiveness &lt; BusinessTrip</td>
<td>.23</td>
<td>.02</td>
</tr>
<tr>
<td>Downstream competitiveness &lt; InternetUse</td>
<td>.22</td>
<td>.04</td>
</tr>
<tr>
<td>Downstream competitiveness &lt; NetworkMeetings</td>
<td>.32</td>
<td>***</td>
</tr>
<tr>
<td>Downstream competitiveness &lt; Collaboration</td>
<td>.22</td>
<td>.01</td>
</tr>
<tr>
<td>Downstream competitiveness &lt; GovernmentLinkagesUse</td>
<td>.21</td>
<td>.11</td>
</tr>
<tr>
<td>Upstream Competitiveness &lt; MachinerySoftwareImport</td>
<td>.86</td>
<td>***</td>
</tr>
<tr>
<td>Upstream Competitiveness &lt; MaterialImport</td>
<td>-.18</td>
<td>.03</td>
</tr>
<tr>
<td>Economic export performance &lt; Downstream competitiveness</td>
<td>.36</td>
<td>***</td>
</tr>
<tr>
<td>Economic export performance &lt; Upstream Competitiveness</td>
<td>.48</td>
<td>***</td>
</tr>
</tbody>
</table>

### Table 5.12: Comparison of OEM versus independent exporters for model B

<table>
<thead>
<tr>
<th>Hypothesized relationship</th>
<th>OEM exporters</th>
<th>Independent exporter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Standard estimate</td>
<td>Sig. level</td>
</tr>
<tr>
<td>Downstream competitiveness &lt; IBExperienceStaff</td>
<td>.30</td>
<td>.00</td>
</tr>
<tr>
<td>Downstream competitiveness &lt; BusinessTrip</td>
<td>.17</td>
<td>.05</td>
</tr>
<tr>
<td>Downstream competitiveness &lt; InternetUse</td>
<td>.3</td>
<td>.01</td>
</tr>
<tr>
<td>Downstream competitiveness &lt; NetworkMeetings</td>
<td>.29</td>
<td>.00</td>
</tr>
<tr>
<td>Downstream competitiveness &lt; Collaboration</td>
<td>.2</td>
<td>.02</td>
</tr>
<tr>
<td>Downstream competitiveness &lt; GovernmentLinkagesUse</td>
<td>.28</td>
<td>.01</td>
</tr>
<tr>
<td>Upstream Competitiveness &lt; MachinerySoftwareImport</td>
<td>.99</td>
<td>***</td>
</tr>
<tr>
<td>Upstream Competitiveness &lt; MaterialImport</td>
<td>-.17</td>
<td>.08</td>
</tr>
<tr>
<td>Strategic export performance &lt; Downstream</td>
<td>.29</td>
<td>.09</td>
</tr>
<tr>
<td>Strategic export performance &lt; Upstream</td>
<td>.38</td>
<td>.02</td>
</tr>
</tbody>
</table>
Last but not least is an interesting result that was also touched upon by Humphrey and Schmitz (2004). Not only upstream competitiveness but also downstream competitiveness makes a greater contribution to economic export performance for OEM firms. This may indicate that these firms adopt “double” or “multi-chain” export strategies in which they keep their GVC node as contract manufacturers (OEM exporters) for global buyers, but at the same time try to develop their own products and brands in the export markets (see results in Tables 5.11 and 5.12). However, to confirm the presence of multi-chain strategies, more tests should be conducted. This explorative finding could form an avenue for future research, as discussed in the next chapter.

5.8.6 Test of technology endowment

The sample firms were also been divided into two sub-samples based on their categorization in high-tech or low-tech industries. Textile and garment firms were categorized as low-tech, while electronic and mechanical manufacturing firms were classified as high-tech.

The procedure was the same as for the cross-validation analysis of OEM versus non-OEM sub-samples. Simultaneous factor analyses for two sub-samples – high-tech and low-tech – were undertaken. Based on the chi-square difference (1.92), we can conclude that the two samples are free from size or heterogeneity problems.

Tables 5.13 and 5.14 show that the impact of export facilitating activities on upstream and downstream competitiveness is greater in low-tech firms than in high-tech firms. However, the impact is confined to particular export facilitating activities. High-tech firms exhibit a greater impact from such export facilitating activities as Internet use, collaboration and governmental linkages. These export facilitating activities are non-significant with regard to their impact on international competitiveness in low-tech firms.

Interestingly, the impact of upstream competitiveness on firms’ export performance – especially strategic performance – is much higher in low-tech firms. This may suggest that these firms transform their competitiveness in production to gaining a foothold more efficiently, and that they are better at responding to competitive pressure in foreign markets.
Surprisingly, high-tech firms contradict our hypothesis on the magnitude of impact between upstream and downstream competitiveness on economic export performance. *Downstream* competitiveness tends to have a larger effect on firms’ economic performance than *upstream* competitiveness. This may suggest that, for these firms, marketing and sales activities are essential to expanding export volumes and gaining profit in foreign markets.

Table 5.13: Comparison of high-tech exporters versus low-tech exporters for model A

<table>
<thead>
<tr>
<th>Hypothesized relationship</th>
<th>High-tech firms</th>
<th></th>
<th>Low-tech firms</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Standard estimate</td>
<td>Sig. level</td>
<td>Standard estimate</td>
<td>Sig. level</td>
</tr>
<tr>
<td>Downstream competitiveness</td>
<td>.25</td>
<td>.01</td>
<td>.59</td>
<td>***</td>
</tr>
<tr>
<td>Downstream competitiveness</td>
<td>.26</td>
<td>.00</td>
<td>.23</td>
<td>.03</td>
</tr>
<tr>
<td>Downstream competitiveness</td>
<td>.30</td>
<td>.00</td>
<td>.2</td>
<td>.11</td>
</tr>
<tr>
<td>Downstream competitiveness</td>
<td>.29</td>
<td>.00</td>
<td>.35</td>
<td>.01</td>
</tr>
<tr>
<td>Downstream competitiveness</td>
<td>.15</td>
<td>.04</td>
<td>.09</td>
<td>.38</td>
</tr>
<tr>
<td>Downstream competitiveness</td>
<td>.25</td>
<td>.04</td>
<td>.05</td>
<td>.66</td>
</tr>
<tr>
<td>Downstream competitiveness</td>
<td>.97</td>
<td>***</td>
<td>.99</td>
<td>***</td>
</tr>
<tr>
<td>Downstream competitiveness</td>
<td>-.17</td>
<td>.04</td>
<td>-.12</td>
<td>.24</td>
</tr>
<tr>
<td>Economic export performance</td>
<td>.36</td>
<td>***</td>
<td>.11</td>
<td>.16</td>
</tr>
<tr>
<td>Economic export performance</td>
<td>.28</td>
<td>.00</td>
<td>.35</td>
<td>***</td>
</tr>
<tr>
<td>Economic export performance</td>
<td>.13</td>
<td>.06</td>
<td>.24</td>
<td>.00</td>
</tr>
</tbody>
</table>

Table 5.14: Comparison of high-tech exporters versus low-tech exporters for model B

<table>
<thead>
<tr>
<th>Hypothesized relationship</th>
<th>High-tech firms</th>
<th></th>
<th>Low-tech firms</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Standard estimate</td>
<td>Sig. level</td>
<td>Standard estimate</td>
<td>Sig. level</td>
</tr>
<tr>
<td>Downstream competitiveness</td>
<td>.27</td>
<td>.00</td>
<td>.61</td>
<td>***</td>
</tr>
<tr>
<td>Downstream competitiveness</td>
<td>.27</td>
<td>***</td>
<td>.23</td>
<td>.02</td>
</tr>
<tr>
<td>Downstream competitiveness</td>
<td>.35</td>
<td>***</td>
<td>.22</td>
<td>.09</td>
</tr>
<tr>
<td>Downstream competitiveness</td>
<td>.28</td>
<td>.00</td>
<td>.33</td>
<td>.00</td>
</tr>
<tr>
<td>Downstream competitiveness</td>
<td>.20</td>
<td>.01</td>
<td>.08</td>
<td>.41</td>
</tr>
<tr>
<td>Downstream competitiveness</td>
<td>.29</td>
<td>.01</td>
<td>.05</td>
<td>.69</td>
</tr>
</tbody>
</table>
Another interesting comparison between low-tech and high-tech firms shows that *upstream* competitiveness has a greater impact on both dimensions of export performance in low-tech exporting firms compared to high-tech firms. This attribute may be explained by the fact that the competitiveness of low-tech firms resides in their production capability (see results in Tables 5.13 and Table 5.14).
6. DISCUSSION AND CONCLUSIONS

This study is one of the first to shed light on the performance and competitiveness implications of the different internationalisation strategies that emerging market exporters can choose to implement. The goal of this thesis has been to answer the three research questions: Are emerging market firms creating international competitiveness in relation to upstream or downstream activities, or both? How do emerging market firms create international upstream and downstream competitiveness? Do emerging market firms with international competitiveness in upstream activities perform better or worse than those with international competitiveness in downstream activities? A number of important conclusions can be drawn from this research.

First, there is clear evidence that emerging market firms, such as those in Vietnam, have achieved international competitiveness in relation to both upstream and downstream activities. This thesis uses structure equation modelling to design and test the constructs of upstream and downstream competitiveness while ensuring a high level of internal reliability. Firms possess several upstream advantages: possession of cutting-edge technology; the ability to provide low-price, high-quality products and user-friendly product applicability; and efficient production. Likewise, firms enjoy downstream competitiveness in terms of marketing and sales in physically and psychically distant export markets, and in countries characterised by nationalistic or illegitimate economic policies.

Second, the findings imply that the internationalisation of firms from emerging markets, such as Vietnam, should be portrayed somewhat differently than the internationalisation of firms from the “developed” economies. While the latter is often presented as an export-related learning process (Johanson and Wiedersheim-Paul 1975, Johanson and Vahlne 1977) that enables the entrant firm to conduct downstream value-chain activities (Porter 1985), the former portrayal should focus more on firms’ cost advantages in relation to upstream value chain activities. This contention is supported by the empirical study, which shows that upstream activities translate into international competitiveness for export firms (H1a, c). One might speculate that this is particularly true in the context of transitional economies where, until recently, firms have relied on “backward” technologies. With the opening and deregulation of the economy, the importing of technology may be seen as a pioneering and daunting task that requires a good portion of entrepreneurship. In a study of Vietnamese case as export success, Hill (2000) has revealed that
Government’s reform which enables exporters to source inputs at international level and price contributed to the impressive performance of textiles and garments firms.

The research also verifies that recruiting and retaining skilled IB staff is crucial for the international competitiveness of Vietnamese manufacturers (H2b). Apparently, experiential knowledge of foreign markets is important for overcoming barriers associated with foreign languages, cultures, business practices and legislation (Morosini and Shane 1998). IB skills acquired in foreign markets, especially through involvement in multinational corporations or international organizations, expose entrepreneurs to information and contacts abroad. This knowledge can be seen as a tacit information resource that helps firm upgrade and maintain competitiveness in a way that competitors will find hard to imitate. Furthermore, the use of the Internet for day-to-day business (H2d) appears to be a potential determinant of downstream competitiveness for Vietnamese manufacturers. More specifically, the Internet serves as a means of fast-forwarding a firm’s achievements in communication and information. As a means of communication, the Internet enables firms to contact customers, suppliers, distributors and employees regardless of their geographical location and may reduce the need for face-to-face meetings. As an information source, the Internet helps firms accessing information about export markets, customers and distributors, and overcome barriers caused by cultural differences and economic legislation. Three other important aspects of internationalisation related to downstream advantages were included in this study: the use of home country governmental linkages, collaboration with other firms, and use of formal business network (H2e, f, g). These social and business interactions are necessary for the establishment of network ties, and they give firms a chance to market and sell their products abroad. The quality and strength of a firm’s inter-organizational linkages affect its overall success and the value created (Ghoshal and Bartlett 1990). Constructing and strengthening networks with institutions, business partners, or even suppliers and customers, can help firms expand their sales in physically and psychically distant markets.

Third, in line with the hypotheses presented here and in other studies (e.g. Bazan and Navas-Aleman 2004), the pursuit of an upstream internationalisation path is significantly more attractive in terms of economic export performance (export sales, profitability and growth) than the pursuit of a downstream internationalisation path that focuses on the development of
marketing and sales in foreign markets (H3a). However, when export performance was measured in more far-sighted, strategic terms, there were no apparent differences between the two dimensions of competitiveness.

This finding also relates to a point implicitly raised by the research questions: Are emerging market firms better off following the “traditional” path of independent internationalisation in which firms gradually build up their own distribution channels as they learn about the foreign customers and how they are serviced, or is this path basically an anachronism of the past, that is, in an increasingly globalized marketplace the only feasible, in the meaning of profitable internationalisation path of emerging market firms is GVC insertion as OEM exporters? The findings partly support this latter suggestion to the extent that not only OEM exporters, but also independent exporters, are more likely to gain financial payoffs if they possess international upstream competitiveness. This finding challenges the perspective that GVC insertion of emerging market firms is important to financial success in the sense that even independent exporters can gain economic export rents if they focus on upstream competitiveness. Given that the internationalisation of Vietnamese firms is still somewhat less developed than the internationalisation of firms in other emerging countries, the finding indicates that it may be best for Vietnamese firms to concentrate on cost efficiencies – in particular economies of scale - in production and operations. This finding is strengthened by the study of Nadvi et al (2004) in which the authors point out that large firms with substantial capacity to supply diverse product ranges are better off than firms without such capacity. Also according to this study, large firms - especially SOEs - are able to take on large orders to manufacture a relatively diverse product range that meets demands in compliance with global standards. In turn, this improves their market shares.

According to the arguments presented here, OEM exporters are better off in the short term – they exhibit better economic export performance (but not better strategic performance). However, due to their lock-in with global buyers, they find it difficult to develop downstream strategies to approach foreign markets.

The research also provides some interesting findings regarding industry differences. Upstream competitiveness yields better economic performance in low-tech firms than in high-tech firms.
We may therefore conclude that pursuing economies of scale in production and operation leads to a higher financial payoff for low-technology firms. Furthermore, the research reveals that downstream competitiveness gives high-tech firms a higher economic return than upstream competitiveness. We can therefore infer that following a differentiation strategy and undertaking fixed cost investments will reward high-tech firms the most. The results are consistent with the different geographical patterns of internationalisation in the two industries. The export markets of Vietnamese textile firms are closer and less diversified than those of electronic and mechanical manufacturers. In addition, the proportion of export sales related to total sales is higher for electronic and mechanical manufacturing firms than for firms in the textile industry. Therefore, fixed cost investments in differentiation strategies offer a better payoff for electronic and mechanical manufacturers than for textile firms. Likewise, investing in operation and production capabilities is more beneficial for electronic and mechanical manufacturing firms.
7. IMPLICATIONS AND PERSPECTIVES

7.1 Theoretical contribution

7.1.1 Extending internationalisation theory

First and foremost, this study confirms the basic logic of the conventional schools of internationalisation theory as dominated by the Uppsala model (Johanson and Wiedersheim-Paul, 1975; Johanson and Vahlne, 1977). The Uppsala model focuses on firms’ export activities (rather than import activities) and how the conduct of these activities gradually improves competitiveness in relation to downstream value chain activities. In the Uppsala model, international competitiveness as it relates to upstream activities is only implicitly assumed. Market knowledge, including perceptions of opportunities and threats, is assumed to be primarily gained through the undertaking of business activities in the market. The results of this study support the argumentation of the Uppsala model by demonstrating that acquiring market knowledge – by conducting foreign business trips, employing experienced IB staff, and engaging in business and institutional networks – leads to downstream competitiveness and reduces perceived market uncertainty.

However, this study goes beyond the downstream focus of conventional internationalisation theory by exploring upstream aspects as well. Hence, this study supports the logic of the technology import model (Lim 2000) in which emerging market firms can overcome their resource limitations and build their competitive advantages by learning from licensors and franchisors. The technology import model contends that firms acquire foreign technology in various ways, familiarize themselves with the technology, and – as a corollary – improve their manufacturing skills to a level where they are able to compete successfully in export markets (Hobday 1995, Mathews 2002). Therefore, the import activities basically ensure upstream competitiveness and, eventually, export performance. The analyses of data covering firms in the electronics, mechanical, and textile and garment industries confirms this thesis’s hypothesis that the importing of machinery and software are crucial for firms’ creation of upstream advantages. Unfortunately, due to data limitations the effects suggested by the inward-outward connection model (Welch and Luostarinen 1993, Korhonen et al. 1996) could not be tested. The model contends that import activities (“inward internationalisation”) may have positive network and
learning spillover effects on export activities (“outward internationalisation”). In this internationalisation model, inward activities – such as importing – are seen as important factors for companies trying to overcome psychic distances (Hallén and Wiedersheim-Paul 1989, Jain 1989) and then proceed to a higher level of engagement in foreign markets. However, the study could not successfully test the effect of importing strategies on outward internationalisation or downstream competitiveness at an acceptable level of significance.

An important contribution of this study is its emphasis on the roles that managers on different business levels play and how management intentions interact with internationalisation paths. The research addresses the issue of understanding the multiple paths and processes by which firms can become successful. This study contends that these aspects are vital to the successful internationalisation of emerging market firms. To beat competitors, managers have to take advantage of the scarcity and immobility of resources to spot international market opportunities before others and, consequently, appropriate them. Some firms with scarce resources have turned this disadvantage into an advantage through bootstrapping innovation (Hutzschenreuter et al. 2007). These firms are driven by managers who use scarce resources to speed up or diversify their internationalisation and exploit new growth opportunities abroad, thereby increasing their competitiveness. Therefore, it is fair to say that internationalisation journeys are more diversified and less determined by path dependencies (Hutzschenreuter et al. 2007) than usually portrayed. This study supports the contention that firms can change their strategic direction, and overcome technological backwardness and psychic distances to foreign markets through the mechanisms by which firms accumulate and dissipate new skills and capabilities.

7.1.2 Extending the global value chain focus

The GVC literature (see e.g. Gereffi 1994, Humphrey 2003, Schmitz 2006) offers only sparse evidence of how competitiveness brought by GVC insertion affects the profitability of local OEM-subcontractors vis-à-vis more independent ODM and OBM exporting firms (a prominent exception is Bazan and Navas-Aleman 2004). In this thesis, this issue is directly addressed as one of the research questions.

The main argument is that the strategic considerations of an OEM subcontractor incorporated in a GVC are likely to differ fundamentally from those of an independent exporter. An OEM
subcontractor tends to be in a lock-in situation, with limited strategic scope for seeking out new markets, customers, or products (Gereffi 1999, Sturgeon 2002, Hobday 1995). To a large extent, strategic decisions are in the hands of the global customers of the local supplier. Strategic scope is traded off against secured access to cutting-edge design, process technology and global markets. These benefits can be used to fulfil short-term economic goals. In contrast, independent exporters trade off short-term sales and profit gains against long-term strategic market opportunities, including the possibility to achieve considerable bargaining power (and concomitant monopoly rents) in international markets. The results also support the contention that upstream competitiveness in GVC firms yields higher economic export performance than in independent firms.

7.2 Specific context of the empirical contribution

Internationalisation studies have mainly focused on export firms and MNCs from developed economies. More recently, the role played by firms from emerging markets – especially firms in Asia and Eastern Europe – has received increased attention (Estrin et al. 2008). In light of the lack of empirical evidence on the internationalisation of SMEs in an Asian context, this study aims to contribute to the research on internationalisation and export performance by examining data collected on Vietnamese firms in 2007. In order to shed some light on this broad issue, this study departs from previous works (see e.g. Neupert et al. 2006, Thomsen 2007, Hill 2000, Nadvi and Thoburn 2004, Nguyen and Barrett 2006) in several ways.

First, this is one of the first cross-sectional studies to examine export performance within the context of GVCs and emerging markets. Second, the study looks at internationalisation in a combined upstream-downstream value chain context. As such, the study can be characterised as being explorative in terms of scales and measures. Third, the sample contains more than 220 manufacturing export firms in Vietnam. Such a sample size is rare in studies of Vietnamese internationalisation and export performance. Fourth, this study shed light on international strategies and GVC insertion for three industries in Vietnam, suggesting industry-specific implications for internationalisation paths, competitiveness enhancement and export performance.
7.3 Implications for firms and management

Managers of exporting firms will find that this study offers some guidance on which types of internationalisation paths firms should follow in order to improve competitiveness and export performance in foreign markets. On the basis of the study’s empirical evidence, it is argued that technology importing – especially via the importing of machinery and software – helps to build up a competitive production capability, which in turn boosts export performance.

This study also offers managers information on specific options related to competitiveness in marketing their firms’ products. Employing and retaining skilled IB staff, taking advantage of the Internet and conducting foreign business trips all play key roles in improving competitiveness and export performance. To create and improve competitive export advantages, managers should focus on these factors and also stimulate a learning environment in which it is possible to efficiently and effectively use these export facilitating activities.

This study also reveals that the use of export support programs offered by home country governmental bodies, the development of business networks and collaboration with other firms are useful means of approaching distant markets and eliminating uncertainty in selling export products. If managed thoroughly, these export facilitating measures will have a significant, positive impact on firms’ competitiveness and eventual success in foreign markets.

Lastly, the study may help managers improve their understanding of the relevance that the control variables have in explaining a firm’s export performance. In other words, managers may get a better picture of how their internationalisation strategies are influenced by the external environment and how they help explain success – or failure – in international markets.

In conclusion, this study may assist managers of emerging market firms obtain a better understanding of the antecedents, content, and performance implications of different internationalisation paths in various export settings.

7.4 Implications for industry

This study has two major strategic implications for firms operating in high-tech industries, such as electronics and mechanics. First, the study clearly demonstrates that those high-tech firms that develop strong capabilities in relation to downstream activities, such as marketing and
sales, and pursue differentiation strategies have better a higher likelihood of satisfactory economic export performance. Second, investment in Internet use, use of home country governmental linkages, and collaboration with other firms will improve the prospects for firms’ marketing and sale campaigns. Therefore, for high-tech firms, “downstream-oriented” strategies make sense. In contrast, low-tech firms (such as Vietnamese textile and garment firms) can promote their success in foreign markets by focusing on upstream competitiveness, since such a strategy is essential for increasing both economic and strategic export performance. Therefore, export facilitating activities that contribute to production capability enhancement seem to make up the recipe for good export performance from both a short and a long-term perspective.

7.5 Implications on the country level

The direct contribution of internationalisation to firms’ competitive positions and its significant indirect contribution to short-run and long-run export performance act as a strong argument that national policies should favour these activities. In fact, such policies can acts as an important platform for export success.

First, an appropriate environment for the effective importation of technology should be in place. Restrictions on imports of modern machinery and software will have serious repercussions on the performance of firms in international markets. Therefore, it is imperative that governments enact specific, effective policies to guide firms in their licensing or importing of appropriates technologies. Tax schemes and smooth technology importing procedures should be given high priority.

Second, promoting the use of the Internet and facilitating the ease of its adoption is an important governmental task. Many Vietnamese firms are losing foreign partners simply because they are unable to strengthen the applicability of e-business in online financial transaction and consignment control. Undeniably, the Vietnamese government has taken measures to speed up the diffusion of the Internet and provide access to high-speed communication networks. These acts are still in the process of implementation. However, in addition to focusing on the provision of an up-to-date Internet infrastructure, governments should also target learning and training facilities for firms that are new to the Internet. This can
be done through the provision of educational support to firms through industry associations. Such associations can act as intermediaries between firms and government agencies, and they can hold and provide training courses on the use of the Internet.

Regarding education, this study also shows that a highly skilled IB workforce can enable firms to perform better in export markets. A range of policies need to be improved to facilitate more IB orientation among university and business school students. In Vietnam, these improvements could include expansion of the IB curriculum, addition of more courses taught in English, development of international exchange programs for students and faculty (which, in turn, fosters a need for international accreditation of Vietnamese universities), and establishment of more linkages between universities and local export firms.

Policy makers can also use the findings of this study to understand managers’ needs for export promotion support services, such as formal business networks and government linkages. Much of the Vietnamese government’s current export promotion policies focus on encouraging entrepreneurs to address international markets by fostering direct trade links with other countries and by providing financial export incentives. The firms in this study that make use of such export promotion services are, in general, highly successful in international markets. This signals a strong need for governmental schemes that induce bridging between Vietnamese firms and the rest of the world.

Needless to say, managers and governments wishing to use the findings of this study for robust policy decisions should critically assess its applicability to their firm's or country's specific situation on which international strategies emerging market firms in general (and Vietnamese firms, in particular) should follow.

7.6 Limitations and future research

Some aspects of this study may qualify for future theoretical or empirical research.

7.6.1 Theoretical issues

This study focuses on the effect of internationalisation paths on firms’ competitiveness and their resulting export performance. In undertaking the study, internationalisation theory and
international entrepreneurship theory have been combined – and, to some extent, synthesized – into one conceptual framework. Given the different assumptions of the two theories, more rigorous conceptual frameworks should be developed in the future.

The research presented here indicates that the internationalisation of Vietnamese firms has a number of features that require more consideration than they are currently given by existing internationalisation theories. These features concern the internationalisation process in connection with competitiveness, the institutional role of governments, the impact of networks, and entrepreneurship. The scope of the study could be extended to include contextual variables like the regulatory environment, competition, industry policy and the role of various export marketing strategies.

One may also include mediated variables, such as upstream competitiveness with a focus on production antecedents, and downstream competitiveness with a focus on essential marketing and sale activities. However, these variables, by their very nature, are rather diversified. For example, upstream competitiveness may include procurement and logistics activities. Therefore, future research could elaborate on these activities.

The dependent variable of export performance was split into two constructs: economic and strategic performance. As indicated in the literature (Aaby and Slater 1989, Cavusgil and Zou 1994), firms’ export performance has been measured using a myriad of indicators, including export sales, export growth, export profitability, export market share, attainment of export goals, export intensity, and perceived success. What has been captured in this study is only a selection of these measures. Future export performance studies may try to encompass the whole bundle of suggested indicators and thoroughly examine their contributions.

7.6.2 Methodological issues

This study limits itself to the distinct context of an emerging economy. Vietnamese firms may not accurately represent their counterparts in other emerging countries – for example, Vietnam has a highly export-oriented economy and encompasses a blend of different cultures. Furthermore, the medium size of our sample firms may have some impact on the generalization of the findings to those of other studies on internationalisation and export performance. Some
researchers (Souchon and Diamantopoulos 1997, Delios and Beamish 1999, Lu and Beamish 2001, Estrin et al. 2008) have suggested the necessity of gathering evidence from other emerging countries. In addition, while this study provides empirical findings based on a developing country context, further studies in both developing and developed country contexts are necessary in order to generalize the findings, and to further improve our knowledge and understanding of this important topic area.

On the methodological front, the development of valid and reliable multi-item scales for measuring upstream and downstream competitiveness and (to a lesser extent) export performance remains a major challenge. In this context, additional elaboration of indicators, along with careful checking, will increase the construct validity.

Caution should be exercised in interpreting the relationships among the variables and the critical levels derived in this study when looking into other national contexts. In addition, Geringer et al. (2000) found that internationalisation strategies have changing performance implications over time. Due to the restricted availability of data, however, only a limited number of variables could be incorporated into this study and only a static, cross-sectional analysis could be conducted. Such an analysis does not adequately capture the dynamic nature of the variables examined. Therefore, future research could aim to trace the dynamics of relationships, and conduct longitudinal studies or panel data studies in order to gain more insight on the phenomena of firms’ internationalisation (Geringer et al. 2000, Gomes and Ramaswamy 1999).
8. REFERENCES


GSO.net – General Statistics Office Vietnam,


Korhonen, H., (1999), “*Inward-outward internationalization of small and medium enterprises*”, HeSE print.


Leone, R., (1981), “Government Regulation of Business: Developing the Managerial Perspective”, Harvard University, Boston, MA.


Wheeler, C., McDonald, F., Greaves, I., (2003), “*Internationalization, firms strategies and management.*”, Palgrave, Macmillan


9. APPENDICES

APPENDIX A

Main Questionnaire: Survey of Manufacturing Enterprises in Vietnam

(Request for the respondents: The interview will only be conducted with the provision of financial statements)

Enterprise Name

Webpage

Interviewer

Date of the interview
Day    Month    Year

IDENTIFICATION PARTICULARS
A  a) Name of respondent
   b) Position of respondent
   Code: Owner (1), Manager (2)
   c) Gender of respondent
      Code: Male (1), Female (2)
   d) Age of respondent

B  a) Name of enterprise
   b) Address of enterprise (Headquarters)
      ba) Street name
      bb) Street number
      bc) Commune/Ward
      bd) District

      be) Region
      Code: Ha Noi (1), HCMC (2)
   c) Telephone number
      ca) Fixed
      cb) Mobile
   d) Telefax
   e) E-mail address

C Location of main production facility (if different from headquarters)
   a) City/Province
   b) District

GENERAL COMPANY CHARACTERISTICS
Please answer the questions (indicate figures) for the year 2006

Q1  Form of ownership/legal status
Code: Household establishment/business (1), Private (sole proprietorship) (2), Partnership (3), Collective/cooperative (4), Limited liability company (5), Joint stock company with state capital (6), Joint stock company without state capital (7), Joint venture with foreign capital (8), State enterprise (central) (9), State enterprise (local) (10)

Q2  Company size (Number of full-time employees)

Q3  Company debt as a percentage of total assets

Q4  Company capital value (in VND)

Q5  What kind of goods/services does the enterprise produce?

Q6  What was your company export turnover/year?

Q7  What was your company profit/year?

Q8  What was the value of your company’s fixed assets (including tangible and intangible assets)?

EXPORT FACILITATORS

Q9  What kind of machinery and equipment did you import?

Q10  Of your company’s total fixed assets, what percentage constitutes machinery, equipment and related software imported by your company?

Q11  What kind of service packages did you import (such as financial management, business management and accounting management)?

Q12  Of your total fixed assets, what percentage constitutes services (such as financial management, business management and accounting management) imported by your company?

Q13  What kind of materials and components did you import?

Q14  Of your total operating costs, what percentage constitutes materials and components imported by your company?

Q15  What kind of licenses (patents, trademarks, designs, copyrights and secret know-how) did you buy from foreign companies?
Q16 Of your total operating costs, what percentage constitutes license fees paid to foreign entities for the use of patents, trademarks, designs, copyrights and know-how, etc?

Q17 Did you have any non-Vietnamese people in your company to provide support in technical matters (such as hiring foreign technical specialists to train, instruct and supervise technical matters in relation to production)?

Yes: If yes, of your current technical staff, what percentage constitutes non-Vietnamese technical specialists (both employees and visiting specialists)?

No

Q18 What percentage of your sales staff had more than five years experience with import or export business?

Q19 What percentage of your sales staff could speak one or more foreign languages on a negotiation level?

Q20 Did you take part in any business network, such as enterprise associations, SMEs associations, entrepreneur associations, investment and trading promoting centers for the purpose of getting export-relevant information?

Yes: If Yes, how many meeting do you have in these associations per year?

No

Q21 Do you use home country government linkages, such as commercial and trading departments or Vietnamese commercial departments, in foreign countries?

Yes: If Yes, please indicate on the below scale (by circling the appropriate expression) to what extent your use of government linkages substituted for promotion effort of your company.

<table>
<thead>
<tr>
<th>Very significant substitution</th>
<th>Significant substitution</th>
<th>Fair substitution</th>
<th>Little substitution</th>
<th>Non substitution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No

Q22 Did you sell some of your products through foreign intermediaries?

Yes: If Yes, what percentage of your export sales was distributed via foreign intermediaries?

No

Q23 How many days per year did managers and staff spend on conducting business trips abroad?

Q24 How many export sales employees were there in your company?
Q 25 How many managers were there in your company?

Q26 Please indicate on the below scale (by circling the relevant expression) to what extent your export business in general (conducting market research, email communication with export customers, online provision of before and after sales service to customers and export intermediaries, etc.) was facilitated by internet use.

<table>
<thead>
<tr>
<th>Very much used</th>
<th>Used</th>
<th>Fairly used</th>
<th>Little used</th>
<th>Not used</th>
</tr>
</thead>
</table>

Q27 Please indicate on the below scale (by circling the relevant expression) to what extent you collaborate with other firms with regard to the following aspects: to upgrade technology and skills, to access foreign markets, to co-produce particular products, to access financial resources.

<table>
<thead>
<tr>
<th>Very tight collaboration</th>
<th>Tight collaboration</th>
<th>Fairly close collaboration</th>
<th>Loose collaboration</th>
<th>No collaboration</th>
</tr>
</thead>
</table>

**EXPORT CHARACTERISTICS**

Q28 What was your export sales as a percentage of total sales?

Q29 What was your export profit as a percentage of export sales?

Q30 (Growth) Please provide your export profit growth rate of year 2006 (one-year period)

Q31 To how many countries did you export?

Which countries are they?

Q32 How many products do you export?

What are they?

Q33 Of your total export sales in 2006, what percentage was constituted by export products marketed under your own brand name?

Q34 Of your total export sales in 2006, what percentage was constituted by export products marketed under others’ brand names and produced in compliance with others’ specification of inputs and design?

Q35 How many years elapsed between your company’s inception and its first export sales?
Q36 To what extent is there a fit between your strategic objectives and the realities of gaining a foothold in your export markets? (Please circle appropriate expression)

<table>
<thead>
<tr>
<th>Very good fit</th>
<th>Good fit</th>
<th>Fairly good fit</th>
<th>Little fit</th>
<th>No fit</th>
</tr>
</thead>
</table>

Q37 To what extent have your strategic objectives of increasing the awareness of the product/company in your export markets been achieved? (Please circle appropriate expression)

<table>
<thead>
<tr>
<th>Very highly achieved</th>
<th>Well achieved</th>
<th>Fairly achieved</th>
<th>Little achieved</th>
<th>Not at all</th>
</tr>
</thead>
</table>

Q38 To what extent have your strategic objectives of responding to competitive pressure been satisfied? (Please circle appropriate expression)

<table>
<thead>
<tr>
<th>Highly satisfied</th>
<th>Well satisfied</th>
<th>Fairly satisfied</th>
<th>Little satisfied</th>
<th>Not satisfied at</th>
</tr>
</thead>
</table>

Q39 Please indicate (by circling the most appropriate number) to what extent you agree with the following statements:

<table>
<thead>
<tr>
<th>Agree completely</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Disagree completely</th>
</tr>
</thead>
<tbody>
<tr>
<td>a &quot;The technology base of our firm in this line of production is second to none in our industry.&quot;</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b &quot;We possess an international competitive advantage by producing products of competitive price and high quality.&quot;</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c &quot;We possess an international competitive advantage through our production efficiency.&quot;</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d &quot;We possess an international competitive advantage by providing user-friendly product applications.&quot;</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Q40. Please indicate (by circling the most appropriate number) to what extent you agree with the following statements:
<table>
<thead>
<tr>
<th></th>
<th>Agree completely</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Disagree completely</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>&quot;Our competitive advantage in marketing and sales in physically distant countries does not differ from that in Vietnam and neighboring countries.&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>&quot;Our competitive advantage in marketing and sales in psychically distant countries does not differ from that in countries characterized by similar cultures and business environments.&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>&quot;Our competitive advantage in marketing and sales is kept intact even in countries that are characterized by nationalistic and illegitimate economic policies.&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>&quot;Our competitive advantage in marketing and sales is kept intact even in countries characterized by economic policies discriminating against foreign firms.&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## APPENDIX B

### Table 9.1: T-test of non-response bias on some critical variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
<th>Mean difference</th>
<th>Std. error difference</th>
<th>95% confidence interval of the difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MachinerySoftwareImport</td>
<td>.18</td>
<td>223</td>
<td>.85</td>
<td>1.89</td>
<td>10.27</td>
<td>-18.36 to 22.14</td>
</tr>
<tr>
<td>LicenseImport</td>
<td>.93</td>
<td>212</td>
<td>.36</td>
<td>1.22</td>
<td>1.32</td>
<td>-1.38 to 3.81</td>
</tr>
<tr>
<td>IBExperienceStaff</td>
<td>-.50</td>
<td>222</td>
<td>.62</td>
<td>-5.91</td>
<td>11.94</td>
<td>-29.43 to 17.63</td>
</tr>
<tr>
<td>LanguageSkillStaff</td>
<td>.18</td>
<td>223</td>
<td>.86</td>
<td>1.91</td>
<td>10.93</td>
<td>-19.61 to 23.43</td>
</tr>
<tr>
<td>NetworkMeetings</td>
<td>1.36</td>
<td>223</td>
<td>.18</td>
<td>5.05</td>
<td>3.71</td>
<td>-2.26 to 12.35</td>
</tr>
<tr>
<td>GovernmentLinkagesUse</td>
<td>-1.59</td>
<td>221</td>
<td>.11</td>
<td>-.95</td>
<td>.59</td>
<td>-2.09 to .22</td>
</tr>
<tr>
<td>ExportIntensity</td>
<td>-.19</td>
<td>220</td>
<td>.85</td>
<td>-1.86</td>
<td>9.78</td>
<td>-21.12 to 17.40</td>
</tr>
<tr>
<td>PhysicalDistant</td>
<td>.93</td>
<td>221</td>
<td>.35</td>
<td>4.78</td>
<td>5.12</td>
<td>-5.31 to 14.86</td>
</tr>
</tbody>
</table>
Table 9.2: Descriptive statistics on missing data

<table>
<thead>
<tr>
<th></th>
<th>Valid</th>
<th></th>
<th>Missing</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Percent</td>
<td>N</td>
<td>Percent</td>
<td>Percent</td>
<td></td>
</tr>
<tr>
<td>MachinerySoftwareImport</td>
<td>225</td>
<td>99.6%</td>
<td>1</td>
<td>.4%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>LicenseImport</td>
<td>214</td>
<td>94.7%</td>
<td>12</td>
<td>5.3%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>MaterialImport</td>
<td>222</td>
<td>98.2%</td>
<td>4</td>
<td>1.8%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>ForeignStaffRecruit</td>
<td>223</td>
<td>98.7%</td>
<td>3</td>
<td>1.3%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>IBEExperienceStaff</td>
<td>224</td>
<td>99.1%</td>
<td>2</td>
<td>.9%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>LanguageSkillStaff</td>
<td>225</td>
<td>99.6%</td>
<td>1</td>
<td>.4%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>NetworkMeetings</td>
<td>225</td>
<td>99.6%</td>
<td>1</td>
<td>.4%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>GovernmentLinkagesUse</td>
<td>223</td>
<td>98.7%</td>
<td>3</td>
<td>1.3%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>BusinessTrip</td>
<td>223</td>
<td>98.7%</td>
<td>3</td>
<td>1.3%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>InternetUse</td>
<td>224</td>
<td>99.1%</td>
<td>2</td>
<td>.9%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Collaboration</td>
<td>225</td>
<td>99.6%</td>
<td>1</td>
<td>.4%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>ExportIntensity</td>
<td>221</td>
<td>97.8%</td>
<td>5</td>
<td>2.2%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Profitability</td>
<td>224</td>
<td>99.1%</td>
<td>2</td>
<td>.9%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>PeRevebybrand</td>
<td>224</td>
<td>99.1%</td>
<td>2</td>
<td>.9%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>PeCustomerSpecify</td>
<td>224</td>
<td>99.1%</td>
<td>2</td>
<td>.9%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>StrategicResponseCompetitive</td>
<td>224</td>
<td>99.1%</td>
<td>2</td>
<td>.9%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>StrategicFoothold</td>
<td>226</td>
<td>100.0%</td>
<td>0</td>
<td>.0%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>StrategicAwareness</td>
<td>223</td>
<td>98.7%</td>
<td>3</td>
<td>1.3%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>TechBasedProduct</td>
<td>224</td>
<td>99.1%</td>
<td>2</td>
<td>.9%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>PriceQuality</td>
<td>224</td>
<td>99.1%</td>
<td>2</td>
<td>.9%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>ProductionEfficiency</td>
<td>225</td>
<td>99.6%</td>
<td>1</td>
<td>.4%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>ProductApplicability</td>
<td>224</td>
<td>99.1%</td>
<td>2</td>
<td>.9%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>PhysicalDistant</td>
<td>222</td>
<td>98.2%</td>
<td>4</td>
<td>1.8%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>PsychicDistant</td>
<td>225</td>
<td>99.6%</td>
<td>1</td>
<td>.4%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Nationalism</td>
<td>223</td>
<td>98.7%</td>
<td>3</td>
<td>1.3%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>DiscriminationToForeign</td>
<td>224</td>
<td>99.1%</td>
<td>2</td>
<td>.9%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>Group formed</td>
<td>MachinerySoftware Import (X1)</td>
<td>License Import(X2)</td>
<td>Material Import(X3)</td>
<td>ForeignStaff Recruit (X4)</td>
<td>IBExperience Staff(X5)</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------</td>
<td>-------------------</td>
<td>---------------------</td>
<td>--------------------------</td>
<td>------------------------</td>
<td></td>
</tr>
<tr>
<td>X1</td>
<td>T</td>
<td>- .3</td>
<td>1.3</td>
<td>2.2</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td>P(2-tail)</td>
<td>.</td>
<td>.76</td>
<td>.22</td>
<td>.08</td>
<td>.12</td>
<td></td>
</tr>
<tr>
<td># Present</td>
<td>225</td>
<td>223</td>
<td>224</td>
<td>221</td>
<td>224</td>
<td></td>
</tr>
<tr>
<td># Missing</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>X2</td>
<td>T</td>
<td>- .5</td>
<td>.7</td>
<td>-2.2</td>
<td>-4.2</td>
<td></td>
</tr>
<tr>
<td>P(2-tail)</td>
<td>.65</td>
<td>.53</td>
<td>.06</td>
<td>.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td># Present</td>
<td>214</td>
<td>214</td>
<td>225</td>
<td>224</td>
<td>222</td>
<td></td>
</tr>
<tr>
<td># Missing</td>
<td>12</td>
<td>12</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>X3</td>
<td>T</td>
<td>.4</td>
<td>1.4</td>
<td>1.1</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>P(2-tail)</td>
<td>.69</td>
<td>.18</td>
<td>.29</td>
<td>.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td># Present</td>
<td>222</td>
<td>224</td>
<td>224</td>
<td>224</td>
<td>225</td>
<td></td>
</tr>
<tr>
<td># Missing</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>X4</td>
<td>T</td>
<td>- .2</td>
<td>2.6</td>
<td>-.3</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>P(2-tail)</td>
<td>.88</td>
<td>.05</td>
<td>.79</td>
<td>.</td>
<td>.89</td>
<td></td>
</tr>
<tr>
<td># Present</td>
<td>223</td>
<td>222</td>
<td>224</td>
<td>223</td>
<td>222</td>
<td></td>
</tr>
<tr>
<td># Missing</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>X5</td>
<td>T</td>
<td>- .1</td>
<td>-.3</td>
<td>.8</td>
<td>.4</td>
<td></td>
</tr>
<tr>
<td>P(2-tail)</td>
<td>.90</td>
<td>.75</td>
<td>.50</td>
<td>.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td># Present</td>
<td>223</td>
<td>221</td>
<td>223</td>
<td>224</td>
<td>224</td>
<td></td>
</tr>
<tr>
<td># Missing</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>
### Table 9.4: Descriptive statistics on normality

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>MachinerySoftwareImport</td>
<td>38.0</td>
<td>28.4</td>
<td>.29</td>
<td>-.98</td>
<td>3.25</td>
<td>27.0</td>
<td>.35</td>
<td>-1.99</td>
</tr>
<tr>
<td>LicenseImport</td>
<td>1.17</td>
<td>3.42</td>
<td>3.48</td>
<td>12.57</td>
<td>3.78</td>
<td>3.42</td>
<td>.49</td>
<td>-.98</td>
</tr>
<tr>
<td>MaterialImport</td>
<td>32.5</td>
<td>27.0</td>
<td>.35</td>
<td>-.99</td>
<td>3.25</td>
<td>30.2</td>
<td>.90</td>
<td>-.20</td>
</tr>
<tr>
<td>ForeignStaffRecruit</td>
<td>4.60</td>
<td>14.2</td>
<td>4.40</td>
<td>21.07</td>
<td>4.60</td>
<td>14.2</td>
<td>4.40</td>
<td>21.07</td>
</tr>
<tr>
<td>IBExperienceStaff</td>
<td>36.8</td>
<td>33.1</td>
<td>.49</td>
<td>-.98</td>
<td>3.78</td>
<td>30.2</td>
<td>.90</td>
<td>-.20</td>
</tr>
<tr>
<td>LanguageSkillStaff</td>
<td>32.4</td>
<td>30.2</td>
<td>.90</td>
<td>-1.78</td>
<td>3.78</td>
<td>30.2</td>
<td>.90</td>
<td>-1.78</td>
</tr>
<tr>
<td>NetworkMeetings</td>
<td>5.11</td>
<td>10.3</td>
<td>5.03</td>
<td>35.95</td>
<td>5.11</td>
<td>10.3</td>
<td>5.03</td>
<td>35.95</td>
</tr>
<tr>
<td>GovernmentLinkagesUse</td>
<td>1.09</td>
<td>1.63</td>
<td>1.13</td>
<td>-1.67</td>
<td>1.09</td>
<td>1.63</td>
<td>1.13</td>
<td>-1.67</td>
</tr>
<tr>
<td>BusinessTrip</td>
<td>21.7</td>
<td>27.7</td>
<td>3.11</td>
<td>17.41</td>
<td>21.7</td>
<td>27.7</td>
<td>3.11</td>
<td>17.41</td>
</tr>
<tr>
<td>InternetUse</td>
<td>1.98</td>
<td>1.11</td>
<td>1.34</td>
<td>2.82</td>
<td>1.98</td>
<td>1.11</td>
<td>1.34</td>
<td>2.82</td>
</tr>
<tr>
<td>Collaboration</td>
<td>2.26</td>
<td>1.35</td>
<td>.87</td>
<td>-1.41</td>
<td>2.26</td>
<td>1.35</td>
<td>.87</td>
<td>-1.41</td>
</tr>
<tr>
<td>ExportIntensity</td>
<td>50.9</td>
<td>33.5</td>
<td>.14</td>
<td>-1.41</td>
<td>50.9</td>
<td>33.5</td>
<td>.14</td>
<td>-1.41</td>
</tr>
<tr>
<td>Profitability</td>
<td>49.0</td>
<td>32.8</td>
<td>.29</td>
<td>-1.78</td>
<td>49.0</td>
<td>32.8</td>
<td>.29</td>
<td>-1.78</td>
</tr>
<tr>
<td>PeRevebybrand</td>
<td>51.3</td>
<td>42.9</td>
<td>-.06</td>
<td>-1.67</td>
<td>51.3</td>
<td>42.9</td>
<td>-.06</td>
<td>-1.67</td>
</tr>
<tr>
<td>PeCustomerSpecify</td>
<td>43.3</td>
<td>42.6</td>
<td>.32</td>
<td>-1.67</td>
<td>43.3</td>
<td>42.6</td>
<td>.32</td>
<td>-1.67</td>
</tr>
<tr>
<td>StrategicResponseCompetitive</td>
<td>2.67</td>
<td>1.22</td>
<td>-.08</td>
<td>-1.04</td>
<td>2.67</td>
<td>1.22</td>
<td>-.08</td>
<td>-1.04</td>
</tr>
<tr>
<td>StrategicAwareness</td>
<td>3.06</td>
<td>1.07</td>
<td>.33</td>
<td>-1.72</td>
<td>3.06</td>
<td>1.07</td>
<td>.33</td>
<td>-1.72</td>
</tr>
<tr>
<td>StrategicFoothold</td>
<td>2.85</td>
<td>1.02</td>
<td>.39</td>
<td>-1.74</td>
<td>2.85</td>
<td>1.02</td>
<td>.39</td>
<td>-1.74</td>
</tr>
<tr>
<td>TechBasedProduct</td>
<td>2.89</td>
<td>1.18</td>
<td>.29</td>
<td>-1.82</td>
<td>2.89</td>
<td>1.18</td>
<td>.29</td>
<td>-1.82</td>
</tr>
<tr>
<td>PriceQuality</td>
<td>2.29</td>
<td>1.04</td>
<td>.65</td>
<td>-1.16</td>
<td>2.29</td>
<td>1.04</td>
<td>.65</td>
<td>-1.16</td>
</tr>
<tr>
<td>ProductionEfficiency</td>
<td>2.52</td>
<td>1.13</td>
<td>.42</td>
<td>-1.56</td>
<td>2.52</td>
<td>1.13</td>
<td>.42</td>
<td>-1.56</td>
</tr>
<tr>
<td>ProductApplicability</td>
<td>2.95</td>
<td>1.11</td>
<td>.15</td>
<td>-1.64</td>
<td>2.95</td>
<td>1.11</td>
<td>.15</td>
<td>-1.64</td>
</tr>
<tr>
<td>PhysicalDistant</td>
<td>2.81</td>
<td>1.53</td>
<td>.16</td>
<td>-1.48</td>
<td>2.81</td>
<td>1.53</td>
<td>.16</td>
<td>-1.48</td>
</tr>
<tr>
<td>PsychicDistant</td>
<td>2.87</td>
<td>1.37</td>
<td>.11</td>
<td>-1.28</td>
<td>2.87</td>
<td>1.37</td>
<td>.11</td>
<td>-1.28</td>
</tr>
<tr>
<td>Nationalism</td>
<td>2.33</td>
<td>1.26</td>
<td>.68</td>
<td>-1.69</td>
<td>2.33</td>
<td>1.26</td>
<td>.68</td>
<td>-1.69</td>
</tr>
<tr>
<td>DiscriminationToForeign</td>
<td>4.05</td>
<td>.845</td>
<td>-.87</td>
<td>1.09</td>
<td>4.05</td>
<td>.845</td>
<td>-.87</td>
<td>1.09</td>
</tr>
<tr>
<td>Valid N (list-wise)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 9.5: Independent samples test on homoscedasticity

<table>
<thead>
<tr>
<th></th>
<th>Levene's test for equality of variances</th>
<th>T test for equality of mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>MachinerySoftwareImport</td>
<td>7.3</td>
<td>.00</td>
</tr>
<tr>
<td>LicenseImport</td>
<td>.36</td>
<td>.55</td>
</tr>
<tr>
<td>MaterialImport</td>
<td>1.8</td>
<td>.17</td>
</tr>
<tr>
<td>ForeignStaffRecruit</td>
<td>5.0</td>
<td>.02</td>
</tr>
<tr>
<td>IBExperienceStaff</td>
<td>.27</td>
<td>.60</td>
</tr>
<tr>
<td>LanguageSkillStaff</td>
<td>.23</td>
<td>.62</td>
</tr>
<tr>
<td>NetworkMeetings</td>
<td>.08</td>
<td>.76</td>
</tr>
<tr>
<td>GovernmentLinkagesUse</td>
<td>8.3</td>
<td>.00</td>
</tr>
<tr>
<td>BusinessTrip</td>
<td>6.6</td>
<td>.01</td>
</tr>
<tr>
<td>InternetUse</td>
<td>.68</td>
<td>.41</td>
</tr>
<tr>
<td>Collaboration</td>
<td>5.0</td>
<td>.02</td>
</tr>
<tr>
<td>ExportIntensity</td>
<td>.15</td>
<td>.69</td>
</tr>
<tr>
<td>Profitability</td>
<td>.06</td>
<td>.80</td>
</tr>
<tr>
<td>PeRevebybrand</td>
<td>1.9</td>
<td>.16</td>
</tr>
<tr>
<td>PeCustomerSpecify</td>
<td>1.8</td>
<td>.17</td>
</tr>
<tr>
<td>StrategicResponseCompetitive</td>
<td>1.6</td>
<td>.20</td>
</tr>
<tr>
<td>StrategicAwareness</td>
<td>2.8</td>
<td>.09</td>
</tr>
<tr>
<td>StrategicFoothold</td>
<td>.01</td>
<td>.92</td>
</tr>
<tr>
<td>TechBasedProduct</td>
<td>.13</td>
<td>.71</td>
</tr>
<tr>
<td>PriceQuality</td>
<td>1.8</td>
<td>.17</td>
</tr>
<tr>
<td>ProductionEfficiency</td>
<td>.12</td>
<td>.72</td>
</tr>
<tr>
<td>ProductApplicability</td>
<td>.82</td>
<td>.36</td>
</tr>
</tbody>
</table>

Levene's test for equality of variances | T test for equality of mean

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>Sig.</th>
<th>T</th>
<th>Sig.</th>
<th>Mean Differences</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>PhysicalDistant</td>
<td>2.9</td>
<td>.08</td>
<td>1.1</td>
<td>.25</td>
<td>.24</td>
<td>.21</td>
</tr>
<tr>
<td>PsychicDistant</td>
<td>4.4</td>
<td>.03</td>
<td>1.8</td>
<td>.07</td>
<td>.34</td>
<td>.19</td>
</tr>
</tbody>
</table>

131
Figure 9.1: Graphical detection of outliers
Figure 9.2 Competing model 2 with recursive paths between upstream competitiveness and downstream competitiveness constructs (dependent variable: strategic performance)
Table 9.6: Multicollinearity detection

<table>
<thead>
<tr>
<th>Source</th>
<th>Correlations</th>
<th>Collinearity statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T</td>
<td>Sig.</td>
</tr>
<tr>
<td>(Constant)</td>
<td>3.47</td>
<td>.00</td>
</tr>
<tr>
<td>MachinerySoftwareImport</td>
<td>-1.23</td>
<td>.02</td>
</tr>
<tr>
<td>IBExperienceStaff</td>
<td>-.22</td>
<td>.02</td>
</tr>
<tr>
<td>LanguageSkillStaff</td>
<td>1.60</td>
<td>.82</td>
</tr>
<tr>
<td>NetworkMeetings</td>
<td>-1.09</td>
<td>.05</td>
</tr>
<tr>
<td>InternetUse</td>
<td>-.61</td>
<td>.04</td>
</tr>
<tr>
<td>MaterialImport</td>
<td>.41</td>
<td>.08</td>
</tr>
<tr>
<td>GovernmentLinkages</td>
<td>.75</td>
<td>.06</td>
</tr>
<tr>
<td>BusinessTrip</td>
<td>.30</td>
<td>.06</td>
</tr>
<tr>
<td>Collaboration</td>
<td>.85</td>
<td>.03</td>
</tr>
<tr>
<td>R</td>
<td>.51</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>.26</td>
<td></td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.22</td>
<td></td>
</tr>
</tbody>
</table>
**APPENDIX C**

Table 9.7: Characteristics of different fit indices demonstrating goodness of fit across different sample sizes and variables

<table>
<thead>
<tr>
<th>Stat.</th>
<th>No. of vars. (m)</th>
<th>N &lt; 250</th>
<th>N &gt; 250</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>m ≤ 12</td>
<td>12 &lt; m ≤ 30</td>
<td>m ≥ 30</td>
</tr>
<tr>
<td>$\chi^2$</td>
<td>Insignificant p-values expected</td>
<td>Significant p-values can result even with good fit</td>
<td>Significant p-values can be expected</td>
</tr>
<tr>
<td>CFI or TLI</td>
<td>.97 or better</td>
<td>.95 or better</td>
<td>Above .92</td>
</tr>
<tr>
<td>RNI</td>
<td>May not diagnose misspecification as well</td>
<td>.95 or better</td>
<td>Above .92</td>
</tr>
<tr>
<td>SRMR</td>
<td>Could be biased upward, use other indices</td>
<td>.08 or less (with CFI of .95 or higher)</td>
<td>less than .09 (with CFI above .92)</td>
</tr>
<tr>
<td>RMSEA</td>
<td>Values &lt; .08 with CFI = .97 or higher</td>
<td>Values &lt; .08 with CFI of .95 or higher</td>
<td>Values &lt; .08 with CFI above .92</td>
</tr>
</tbody>
</table>
Table 9.8: Examination of construct validity

<table>
<thead>
<tr>
<th>Validity components</th>
<th>Meaning</th>
<th>Measurement in SEM</th>
<th>Acceptance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convergent validity</td>
<td>The extent to which items that are indicators of a specific construct &quot;converge&quot; or share a high proportion of variance in common.</td>
<td>Form of measurement parameter coefficients or factor loadings, which can be used to compute variance extracted estimates.</td>
<td>Standardized factor loadings should be at least 0.5 or greater, but preferably 0.7 or greater. Variance extracted estimates for a construct should be 0.5 or greater.</td>
</tr>
<tr>
<td>Discriminant validity</td>
<td>The extent to which a construct is truly distinct from other constructs. Thus, high discriminant validity provides evidence that a construct is unique and captures some phenomena other measures do not</td>
<td>The items making up two constructs could just as well make up only one construct. So, competing CFA models could be set up comparing the fit of a CFA assuming the items make up one construct with that of a CFA assuming they make up two constructs. Compare the variance extracted percentages for any two constructs with the square of the correlation estimate ($\Phi$) between these two constructs.</td>
<td>If the fit of the two construct model is not significantly better than that of the one construct model, then there is insufficient discriminant validity. The variance extracted estimates should be greater than the squared correlation estimate.</td>
</tr>
<tr>
<td>Nomological validity</td>
<td>Examines whether the correlations between the constructs in the measurement theory make sense.</td>
<td>The construct should &quot;fit&quot; with other theoretical concepts as theory would suggest that it does.</td>
<td>Things that are expected to be unrelated should show no correlation. Things that are opposites should produce negative correlations. Things that coincide to some degree should show positive correlations.</td>
</tr>
</tbody>
</table>

Source: Adapted from Hair et al. (2005)
### Table 9.9: Standardized total effects – Model A

<table>
<thead>
<tr>
<th>Downstream Competitiveness</th>
<th>Government Linkages&amp;Use</th>
<th>Material Import</th>
<th>Business Trip</th>
<th>Collaboration</th>
<th>Network Meetings</th>
<th>Internet Use</th>
<th>IB Experience Staff</th>
<th>Machinery Software Import</th>
<th>DIndustry</th>
<th>DOEM</th>
<th>Downstream Competitiveness</th>
<th>Upstream Competitiveness</th>
<th>Economic export performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.14</td>
<td>-0.07</td>
<td>0.25</td>
<td>0.17</td>
<td>0.31</td>
<td>0.28</td>
<td>0.40</td>
<td>0.09</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>0.00</td>
<td>-0.16</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.90</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>0.03</td>
<td>-0.07</td>
<td>0.06</td>
<td>0.04</td>
<td>0.08</td>
<td>0.07</td>
<td>0.10</td>
<td>0.32</td>
<td>0.11</td>
<td>0.16</td>
<td>0.25</td>
<td>0.30</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>0.11</td>
<td>-0.05</td>
<td>0.19</td>
<td>0.13</td>
<td>0.23</td>
<td>0.21</td>
<td>0.30</td>
<td>0.07</td>
<td>0.00</td>
<td>0.00</td>
<td>0.75</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>0.03</td>
<td>-0.07</td>
<td>0.06</td>
<td>0.04</td>
<td>0.08</td>
<td>0.07</td>
<td>0.10</td>
<td>0.32</td>
<td>0.11</td>
<td>0.15</td>
<td>0.25</td>
<td>0.30</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>0.03</td>
<td>-0.07</td>
<td>0.06</td>
<td>0.04</td>
<td>0.08</td>
<td>0.07</td>
<td>0.10</td>
<td>0.32</td>
<td>0.11</td>
<td>0.15</td>
<td>0.25</td>
<td>0.30</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>0.08</td>
<td>-0.04</td>
<td>0.13</td>
<td>0.09</td>
<td>0.17</td>
<td>0.15</td>
<td>0.22</td>
<td>0.05</td>
<td>0.00</td>
<td>0.00</td>
<td>0.55</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>0.00</td>
<td>-0.10</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.62</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.63</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>0.10</td>
<td>-0.05</td>
<td>0.18</td>
<td>0.12</td>
<td>0.22</td>
<td>0.20</td>
<td>0.29</td>
<td>0.07</td>
<td>0.00</td>
<td>0.00</td>
<td>0.72</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>0.00</td>
<td>-0.09</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.58</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.59</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>0.00</td>
<td>-0.09</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.53</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.54</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>
### Table 9.10: Standardized total effects – Model B

<table>
<thead>
<tr>
<th></th>
<th>Government LinkagesUse</th>
<th>Material Import</th>
<th>Business Trip</th>
<th>Collaboration</th>
<th>Network Meetings</th>
<th>Internet Use</th>
<th>IB ExperienceStaff</th>
<th>Machinery Software Import</th>
<th>DIndustry</th>
<th>DOEM</th>
<th>Downstream Competitiveness</th>
<th>Upstream Competitiveness</th>
<th>Strategic export performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downstream competitiveness</td>
<td>0.15</td>
<td>-0.07</td>
<td>0.24</td>
<td>0.19</td>
<td>0.30</td>
<td>0.31</td>
<td>0.43</td>
<td>0.10</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Upstream Competitiveness</td>
<td>0.00</td>
<td>-0.13</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.90</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Strategic export performance</td>
<td>-0.01</td>
<td>-0.04</td>
<td>-0.02</td>
<td>-0.01</td>
<td>-0.02</td>
<td>-0.02</td>
<td>-0.03</td>
<td>0.35</td>
<td>-0.02</td>
<td>0.15</td>
<td>-0.07</td>
<td>0.36</td>
<td>0.00</td>
</tr>
<tr>
<td>Physical Distance</td>
<td>0.11</td>
<td>-0.05</td>
<td>0.18</td>
<td>0.14</td>
<td>0.22</td>
<td>0.23</td>
<td>0.32</td>
<td>0.07</td>
<td>0.00</td>
<td>0.00</td>
<td>0.74</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Strategic foothold</td>
<td>-0.01</td>
<td>-0.02</td>
<td>-0.01</td>
<td>-0.01</td>
<td>-0.01</td>
<td>-0.01</td>
<td>-0.02</td>
<td>0.19</td>
<td>-0.01</td>
<td>0.08</td>
<td>-0.04</td>
<td>0.19</td>
<td>0.74</td>
</tr>
<tr>
<td>Strategic response competitive</td>
<td>-0.01</td>
<td>-0.03</td>
<td>-0.01</td>
<td>-0.01</td>
<td>-0.01</td>
<td>-0.01</td>
<td>-0.02</td>
<td>0.21</td>
<td>-0.01</td>
<td>0.09</td>
<td>-0.04</td>
<td>0.22</td>
<td>0.71</td>
</tr>
<tr>
<td>Psychic Distance</td>
<td>0.11</td>
<td>-0.05</td>
<td>0.17</td>
<td>0.14</td>
<td>0.21</td>
<td>0.22</td>
<td>0.31</td>
<td>0.07</td>
<td>0.00</td>
<td>0.00</td>
<td>0.71</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Product Applicability</td>
<td>0.00</td>
<td>-0.08</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.62</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.72</td>
<td>0.00</td>
</tr>
<tr>
<td>Nationalism</td>
<td>0.08</td>
<td>-0.03</td>
<td>0.13</td>
<td>0.10</td>
<td>0.15</td>
<td>0.16</td>
<td>0.23</td>
<td>0.05</td>
<td>0.00</td>
<td>0.00</td>
<td>0.72</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Price Quality</td>
<td>0.00</td>
<td>-0.08</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.58</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.69</td>
<td>0.00</td>
</tr>
<tr>
<td>Production Efficiency</td>
<td>0.00</td>
<td>-0.07</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.53</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.73</td>
</tr>
<tr>
<td>Titel</td>
<td>Autor</td>
<td>Beskrivelse</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>-------</td>
<td>-------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Martin Grieger</td>
<td>Internet-based Electronic Marketplaces and Supply Chain Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Thomas Basbøll</td>
<td>LIKENESS: A Philosophical Investigation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Lars Bo Jeppesen</td>
<td>Organizing Consumer Innovation: A product development strategy that is based on online communities and allows some firms to benefit from a distributed process of innovation by consumers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Barbara Dragsted</td>
<td>SEGMENTATION IN TRANSLATION AND TRANSLATION MEMORY SYSTEMS: An empirical investigation of cognitive segmentation and effects of integrating a TM system into the translation process</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Jeanet Hardis</td>
<td>Sociale partnerskaber: Et socialkonstruktivistisk casestudie af partnerskabsaktørers virkelighedsopfattelse mellem identitet og legitimitet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Henriette Hallberg Thygesen</td>
<td>System Dynamics in Action</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Carsten Mejer Plath</td>
<td>Strategisk Økonomistyring</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Annemette Kjærgaard</td>
<td>Knowledge Management as Internal Corporate Venturing – a Field Study of the Rise and Fall of a Bottom-Up Process</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Knut Arne Hovdal</td>
<td>De profesjonelle i endring: Norsk ph.d., ej til salg gennem Samfundslitteratur</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Lars Frode Frederiksen</td>
<td>Industriel forskningsledelse – på sporet af mønstre og samarbejde i danske forskningsintensive virksomheder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Lars Pynt Andersen</td>
<td>The Rhetorical Strategies of Danish TV Advertising: A study of the first fifteen years with special emphasis on genre and irony</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Jakob Rasmussen</td>
<td>Business Perspectives on E-learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Sof Thrane</td>
<td>The Social and Economic Dynamics of Networks – a Weberian Analysis of Three Formalised Horizontal Networks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Lene Nielsen</td>
<td>Engaging Personas and Narrative Scenarios – a study on how a user-centered approach influenced the perception of the design process in the e-business group at AstraZeneca</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
19. Thomas Lyse Hansen
*Six Essays on Pricing and Weather risk in Energy Markets*

20. Sabine Madsen
*Emerging Methods – An Interpretive Study of ISD Methods in Practice*

21. Evis Sinani
*The Impact of Foreign Direct Investment on Efficiency, Productivity Growth and Trade: An Empirical Investigation*

22. Bent Meier Sørensen
*Making Events Work Or, How to Multiply Your Crisis*

23. Pernille Schnoor
*Brand Ethos
Om troværdige brand- og virksomhedsidentiteter i et retorisk og diskurstheoretisk perspektiv*

24. Sidsel Fabech
*Von welchem Österreich ist hier die Rede? Diskursive forhandlinger og magt-kampe mellem rivaliserende nationale identitetskonstruktioner i østrigske pressediskurser*

25. Klavs Odgaard Christensen
*Sprogpolitik og identitetsdannelse i flerspragde forbundsstater
Et komparativt studie af Schweiz og Canada*

26. Dana B. Minbaeva
*Human Resource Practices and Knowledge Transfer in Multinational Corporations*

27. Holger Højlund
*Markedets politiske fornuft
Et studie af velfærdens organisering i perioden 1990-2003*

28. Christine Mølgaard Frandsen
*A.s erfaring
Om mellemværendets praktik i en transformation af mennesket og subjektiviteten*

29. Sine Nørholm Just
*The Constitution of Meaning
– A Meaningful Constitution?
Legitimacy, identity, and public opinion in the debate on the future of Europe*

2005

1. Claus J. Varnes
*Managing product innovation through rules – The role of formal and structured methods in product development*

2. Helle Hedegaard Hein
*Mellem konflikt og konsensus – Dialogudvikling på hospitalsklinikker*

3. Axel Rosenø
*Customer Value Driven Product Innovation – A Study of Market Learning in New Product Development*

4. Søren Buhl Pedersen
*Making space
An outline of place branding*

5. Camilla Funck Ellehave
*Differences that Matter
An analysis of practices of gender and organizing in contemporary work-places*

6. Rigmor Madeleine Lond
*Styring af kommunale forvaltninger*

7. Mette Aagaard Andreassen
*Supply Chain versus Supply Chain Benchmarking as a Means to Managing Supply Chains*

8. Caroline Aggestam-Pontoppidan
*From an idea to a standard
The UN and the global governance of accountants’ competence*


10. Vivienne Heng Ker-ni
*An Experimental Field Study on the
<table>
<thead>
<tr>
<th>Page</th>
<th>Author</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Claus J. Varnes</td>
<td>The Constitution of Meaning – A Meaningful Constitution?</td>
</tr>
<tr>
<td>2</td>
<td>Helle Hedegaard Hein</td>
<td>Between Conflict and Consensus – Dialog Development on Hospitals' Clinics Between Conflict and Consensus – Dialog Development on Hospitals' Clinics</td>
</tr>
<tr>
<td>3</td>
<td>Axel Roseornado</td>
<td>Customer Value Driven Product Innovation – A Study of Market Learning in the Development of New Products</td>
</tr>
<tr>
<td>4</td>
<td>Søren Buhl Pedersen</td>
<td>Customer Value Driven Product Innovation – A Study of Market Learning in the Development of New Products</td>
</tr>
<tr>
<td>5</td>
<td>Camilla Funck Ellehave</td>
<td>Making Space – An Outline of Place Branding</td>
</tr>
<tr>
<td>6</td>
<td>Rigmor Madeleine Lond</td>
<td>Organizational Consequences – The Role of Formal and Structural Rules – The Role of Formal and Structural Rules</td>
</tr>
<tr>
<td>7</td>
<td>Mette Aagaard Andreassen</td>
<td>Styring of Local Government – A Comparative Study of Sweden and Multilingual Provinces</td>
</tr>
<tr>
<td>8</td>
<td>Caroline Aggestam-Pontoppidan</td>
<td>Benchmarking as a Means to Supply Chain versus Supply Chain Management</td>
</tr>
<tr>
<td>9</td>
<td>Norsk ph.d.</td>
<td>From an Idea to a Standard: Accountants' Competence</td>
</tr>
<tr>
<td>10</td>
<td>Vivienne Heng Kerni</td>
<td>An Experimental Field Study on the Language Comprehension in English as a Foreign Language</td>
</tr>
<tr>
<td>11</td>
<td>Allan Mortensen</td>
<td>Essays on the Pricing of Corporate Bonds and Credit Derivatives</td>
</tr>
<tr>
<td>12</td>
<td>Remo Stefano Chiari</td>
<td>Figure che fanno conoscere Itinerario sull’idea del valore cognitivo e espressivo della metafora e di altri tropi da Aristotele e da Vico fino al cognitivo contemporaneo</td>
</tr>
<tr>
<td>13</td>
<td>Anders McIlquham-Schmidt</td>
<td>Strategic Planning and Corporate Performance An integrative research review and a meta-analysis of the strategic planning and corporate performance literature from 1956 to 2003</td>
</tr>
<tr>
<td>14</td>
<td>Jens Geersbro</td>
<td>The TDF – PMI Case Making Sense of the Dynamics of Business Relationships and Networks</td>
</tr>
<tr>
<td>15</td>
<td>Mette Andersen</td>
<td>Corporate Social Responsibility in Global Supply Chains Understanding the uniqueness of firm behaviour</td>
</tr>
<tr>
<td>16</td>
<td>Eva Boxenbaum</td>
<td>Institutional Genesis: Micro – Dynamic Foundations of Institutional Change</td>
</tr>
<tr>
<td>17</td>
<td>Peter Lund-Thomsen</td>
<td>Capacity Development, Environmental Justice NGOs, and Governance: The Case of South Africa</td>
</tr>
<tr>
<td>18</td>
<td>Signe Jarlov</td>
<td>Konstruktion af offentlig ledelse</td>
</tr>
<tr>
<td>19</td>
<td>Lars Stærh Jensen</td>
<td>Vocabulary Knowledge and Listening Comprehension in English as a Foreign Language</td>
</tr>
<tr>
<td>20</td>
<td>Christian Nielsen</td>
<td>Essays on Business Reporting Production and consumption of strategic information in the market for information</td>
</tr>
<tr>
<td>21</td>
<td>Marianne Thejl Fischer</td>
<td>Egos and Ethics of Management Consultants</td>
</tr>
<tr>
<td>22</td>
<td>Annie Bekke Kjær</td>
<td>Performance management i Proces-innovation – belyst i et social-konstruktivistisk perspektiv</td>
</tr>
<tr>
<td>23</td>
<td>Suzanne Dee Pedersen</td>
<td>GENTAGELSENS METAMORFOSE Om organisering af den kreative gøren i den kunstneriske arbejdspraksis</td>
</tr>
<tr>
<td>24</td>
<td>Benedikte Dorte Rosenbrink</td>
<td>Revenue Management Økonomiske, konkurrencemæssige &amp; organisatoriske konsekvenser</td>
</tr>
<tr>
<td>25</td>
<td>Thomas Riise Johansen</td>
<td>Written Accounts and Verbal Accounts The Danish Case of Accounting and Accountability to Employees</td>
</tr>
<tr>
<td>26</td>
<td>Ann Fogelgren-Pedersen</td>
<td>The Mobile Internet: Pioneering Users’ Adoption Decisions</td>
</tr>
<tr>
<td>27</td>
<td>Birgitte Rasmussen</td>
<td>Ledelse i fællesskab – de tillidsvalgtes fornyende rolle</td>
</tr>
<tr>
<td>28</td>
<td>Gitte Thit Nielsen</td>
<td>Remerger – skabende ledelseskræfter i fusion og opkøb</td>
</tr>
<tr>
<td>29</td>
<td>Carmine Gioia</td>
<td>A MICROECONOMETRIC ANALYSIS OF MERGERS AND ACQUISITIONS</td>
</tr>
</tbody>
</table>
30. Ole Hinz
Den effektive forandringsleder: pilot, pædagog eller politiker?
Et studie i arbejdskulitrets meningstransformering i forbindelse med vellykket gennemførelse af ledelsesinitierede forandringsprojekter

31. Kjell-Åge Gotvassli
Et praksisbasert perspektiv på dynamiske læringsnettverk i toppidretten
Norsk ph.d., ej til salg gennem Samfunds litteratur

32. Henriette Langstrup Nielsen
Linking Healthcare
An inquiry into the changing performances of web-based technology for asthma monitoring

33. Karin Tweddell Levinsen
Virtual Uddannelsespraksis
Master i IKT og Læring – et casestudie i hvordan præaktiv proceshåndtering kan forbedre praksis i virtuelle læringsmiljøer

34. Anika Liversage
Finding a Path
Labour Market Life Stories of Immigrant Professionals

35. Kasper Elmquist Jørgensen
Studier i samspillet mellem stat og erhvervsliv i Danmark under 1. verdenskrig

36. Finn Janning
A DIFFERENT STORY
Seduction, Conquest and Discovery

37. Patricia Ann Plackett
Strategic Management of the Radical Innovation Process
Leveraging Social Capital for Market Uncertainty Management

2006
1. Christian Vintergaard
Early Phases of Corporate Venturing

2. Niels Rom-Poulsen
Essays in Computational Finance

3. Tina Brandt Husman
Organisational Capabilities, Competitive Advantage & Project-Based Organisations
The Case of Advertising and Creative Good Production

4. Mette Rosenkrands Johansen
Practice at the top – how top managers mobilise and use non-financial performance measures

5. Eva Parum
Corporate governance som strategisk kommunikations- og ledelsesværktøj

6. Susan Aagaard Petersen
Culture’s Influence on Performance Management: The Case of a Danish Company in China

7. Thomas Nicolai Pedersen
The Discursive Constitution of Organizational Governance – Between unity and differentiation
The Case of the governance of environmental risks by World Bank environmental staff

8. Cynthia Selin
Volatile Visions: Transactions in Anticipatory Knowledge

9. Jesper Banghøj
Financial Accounting Information and Compensation in Danish Companies

10. Mikkel Lucas Overby
Strategic Alliances in Emerging High-Tech Markets: What’s the Difference and does it Matter?

11. Tine Aage
External Information Acquisition of Industrial Districts and the Impact of Different Knowledge Creation Dimensions
1. Jakob Vestergaard
Discipline in The Global Economy
Panopticism and the Post-Washington Consensus

2. Heidi Lund Hansen
Spaces for learning and working
A qualitative study of change of work, management, vehicles of power and social practices in open offices

3. Sudhanshu Rai
Exploring the internal dynamics of software development teams during user analysis
A tension enabled Institutionalization Model; “Where process becomes the objective”

Ej til salg gennem Samfundslitteratur

5. Serden Ozcan
EXPLORING HETEROGENEITY IN ORGANIZATIONAL ACTIONS AND OUTCOMES
A Behavioural Perspective

6. Kim Sundtoft Hald
Inter-organizational Performance Measurement and Management in Action – An Ethnography on the Construction of Management, Identity and Relationships

7. Tobias Lindeberg
Evaluative Technologies
Quality and the Multiplicity of Performance

8. Merete Wedell-Wedellsborg
Den globale soldat
Identitetsdannelse og identitetsledelse i multinationale militære organisatiorner

9. Lars Frederiksen
Open Innovation Business Models
Innovation in firm-hosted online user communities and inter-firm project ventures in the music industry – A collection of essays

10. Jonas Gabrielsen
Retorisk topolære – fra statisk ‘sted’ til persuasiv aktivitet

2007

1. Jakob Vestergaard
Discipline in The Global Economy
Panopticism and the Post-Washington Consensus

2. Mikkel Flyverbom
Making the Global Information Society Governable
On the Governmentality of Multi-Stakeholder Networks

3. Anette Grønning
Personen bag Tilstedevar i e-mail som interaktionsform mellem kunde og medarbejder i dansk forsikringskontekst

4. Jørn Helder
One Company – One Language?
The NN-case

5. Lars Bjerrregaard Mikkelsen
Differing perceptions of customer value
Development and application of a tool for mapping perceptions of customer value at both ends of customer-supplier dyads in industrial markets

6. Lise Granerud
Exploring Learning
Technological learning within small manufacturers in South Africa

7. Esben Rahbek Pedersen
Between Hopes and Realities: Reflections on the Promises and Practices of Corporate Social Responsibility (CSR)

8. Ramona Samson
The Cultural Integration Model and European Transformation. The Case of Romania

9. Jonas Gabrielsen
Retorisk topolære – fra statisk ‘sted’ til persuasiv aktivitet

Ej til salg gennem Samfundslitteratur
11. Christian Moldt-Jørgensen
Fra meningsløs til meningsfuld evaluering.
Anvendelsen af studentertilfredshedsmålinger på de korte og mellemlange videregående uddannelser set fra et psykodynamisk systemperspektiv

12. Ping Gao
Extending the application of actor-network theory
Cases of innovation in the telecommunications industry

13. Peter Mejlby
Frihed og fængsel, en del af den samme drøm?
Et phronetisk baseret casestudie af frigørelsens og kontrollens sameksistens i værdibaseret ledelse!

14. Kristina Birch
Statistical Modelling in Marketing

15. Signe Poulsen
Sense and sensibility:
The language of emotional appeals in insurance marketing

16. Anders Bjerre Trolle
Essays on derivatives pricing and dynamic asset allocation

17. Peter Feldhütter
Empirical Studies of Bond and Credit Markets

18. Jens Henrik Eggert Christensen
Default and Recovery Risk Modeling and Estimation

19. Maria Theresa Larsen
Academic Enterprise: A New Mission for Universities or a Contradiction in Terms?
Four papers on the long-term implications of increasing industry involvement and commercialization in academia

20. Morten Wellendorf
Postimplementering af teknologi i den offentlige forvaltning
Analyser af en organisations kontinuerlige arbejde med informations-teknologi

21. Ekaterina Mhaanna
Concept Relations for Terminological Process Analysis

22. Stefan Ring Thorbjørnsen
Forsvaret i forandring
Et studie i officerers kapabiliteter under påvirkning af omverdenens forandringespres mod øget styring og læring

23. Christa Breum Amhøj
Det selvskabte medlemskab om managementstaten, dens styringsteknologier og indbyggere

24. Karoline Bromose
Between Technological Turbulence and Operational Stability
– An empirical case study of corporate venturing in TDC

25. Susanne Justesen
Navigating the Paradoxes of Diversity in Innovation Practice
– A Longitudinal study of six very different innovation processes – in practice

26. Luise Noring Henler
Conceptualising successful supply chain partnerships
– Viewing supply chain partnerships from an organisational culture perspective

27. Mark Mau
Kampen om telefonen
Det danske telefonvæsen under den tyske besættelse 1940-45

28. Jakob Halskov
The semiautomatic expansion of existing terminological ontologies using knowledge patterns discovered
on the WWW – an implementation and evaluation

29. Gergana Koleva
European Policy Instruments Beyond Networks and Structure: The Innovative Medicines Initiative

30. Christian Geisler Asmussen
Global Strategy and International Diversity: A Double-Edged Sword?

31. Christina Holm-Petersen
Stolthed og fordom
Kultur- og identitetsarbejde ved skabelsen af en ny sengeafdeling gennem fusion

32. Hans Peter Olsen
Hybrid Governance of Standardized States
Causes and Contours of the Global Regulation of Government Auditing

33. Lars Bøge Sørensen
Risk Management in the Supply Chain

34. Peter Aagaard
Det unikkes dynamikker
De institutionelle mulighedsbetingelser bag den individuelle udforskning i professionelt og frivilligt arbejde

35. Yun Mi Antorini
Brand Community Innovation
An Intrinsic Case Study of the Adult Fans of LEGO Community

36. Joachim Lynggaard Boll
Labor Related Corporate Social Performance in Denmark
Organizational and Institutional Perspectives

2008

1. Frederik Christian Vinten
Essays on Private Equity

2. Jesper Clement
Visual Influence of Packaging Design on In-Store Buying Decisions

3. Marius Brostrøm Kousgaard
Tid til kvalitetsmåling?
– Studier af indrulleringsprocesser i forbindelse med introduktionen af kliniske kvalitetsdatabaser i speciallægepraksissektoren

4. Irene Skovgaard Smith
Management Consulting in Action
Value creation and ambiguity in client-consultant relations

5. Anders Rom
Management accounting and integrated information systems
How to exploit the potential for management accounting of information technology

6. Marina Candi
Aesthetic Design as an Element of Service Innovation in New Technology-based Firms

7. Morten Schnack
Teknologi og tværfaglighed
– en analyse af diskussionen omkring indførelse af EPJ på en hospitalsafdeling

8. Helene Balslev Clausen
Juntos pero no revueltos – un estudio sobre emigrantes norteamericanos en un pueblo mexicano

9. Lise Justesen
Kunsten at skrive revisionsrapporter. En beretning om forvaltningsrevisions beretninger

10. Michael E. Hansen
The politics of corporate responsibility: CSR and the governance of child labor and core labor rights in the 1990s

11. Anne Roepstorff
Holdning for handling – en etnologisk undersøgelse af Virksomheders Sociale Ansvar/CSR
12. Claus Bajlum
   Essays on Credit Risk and Credit Derivatives

13. Anders Bojesen
   The Performative Power of Competence – an Inquiry into Subjectivity and Social Technologies at Work

14. Satu Reijonen
   Green and Fragile
   A Study on Markets and the Natural Environment

15. Ilduara Busta
   Corporate Governance in Banking
   A European Study

16. Kristian Anders Hvass
   A Boolean Analysis Predicting Industry Change: Innovation, Imitation & Business Models
   The Winning Hybrid: A case study of isomorphism in the airline industry

17. Trine Paludan
   De uvidende og de udviklingsparate
   Identitet som mulighed og restriktion blandt fabriksarbejdere på det aftenløsredede fabriksgulv

18. Kristian Jakobsen
   Foreign market entry in transition economies: Entry timing and mode choice

19. Jakob Elming
   Syntactic reordering in statistical machine translation

20. Lars Brømsøe Termansen
   Regional Computable General Equilibrium Models for Denmark
   Three papers laying the foundation for regional CGE models with agglomeration characteristics

21. Mia Reinholt
   The Motivational Foundations of Knowledge Sharing

22. Frederikke Krogh-Meibom
   The Co-Evolution of Institutions and Technology – A Neo-Institutional Understanding of Change Processes within the Business Press – the Case Study of Financial Times

23. Peter D. Ørberg Jensen
   OFFSHORING OF ADVANCED AND HIGH-VALUE TECHNICAL SERVICES: ANTECEDENTS, PROCESS DYNAMICS AND FIRMLEVEL IMPACTS

24. Pham Thi Song Hanh
   Functional Upgrading, Relational Capability and Export Performance of Vietnamese Wood Furniture Producers

25. Mads Vangkilde
   Why wait?
   An Exploration of first-mover advantages among Danish e-grocers through a resource perspective

26. Hubert Buch-Hansen
   Rethinking the History of European Level Merger Control
   A Critical Political Economy Perspective

2009

1. Vivian Lindhardsen
   From Independent Ratings to Communal Ratings: A Study of CWA Raters’ Decision-Making Behaviours

2. Guðrið Weihe
   Public-Private Partnerships: Meaning and Practice

3. Chris Nøkkentved
   Enabling Supply Networks with Collaborative Information Infrastructures
   An Empirical Investigation of Business Model Innovation in Supplier Relationship Management

4. Sara Louise Muhr
   Wound, Interrupted – On the Vulnerability of Diversity Management
<table>
<thead>
<tr>
<th></th>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Christine Sestoft</td>
<td>Forbrugeradfærd i et Stats- og Livsformsteoretisk perspektiv</td>
</tr>
<tr>
<td>6</td>
<td>Michael Pedersen</td>
<td>Tune in, Breakdown, and Reboot: On the production of the stress-fit self-managing employee</td>
</tr>
<tr>
<td>7</td>
<td>Salla Lutz</td>
<td>Position and Reposition in Networks – Exemplified by the Transformation of the Danish Pine Furniture Manufacturers</td>
</tr>
<tr>
<td>8</td>
<td>Jens Forssbæck</td>
<td>Essays on market discipline in commercial and central banking</td>
</tr>
<tr>
<td>9</td>
<td>Tine Murphy</td>
<td>Sense from Silence – A Basis for Organised Action</td>
</tr>
<tr>
<td></td>
<td></td>
<td>How do Sensemaking Processes with Minimal Sharing Relate to the Reproduction of Organised Action?</td>
</tr>
<tr>
<td>10</td>
<td>Sara Malou Strandvad</td>
<td>Inspirations for a new sociology of art: A sociomaterial study of development processes in the Danish film industry</td>
</tr>
<tr>
<td>11</td>
<td>Nicolaas Mouton</td>
<td>On the evolution of social scientific metaphors:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A cognitive-historical enquiry into the divergent trajectories of the idea that collective entities – states and societies, cities and corporations – are biological organisms.</td>
</tr>
<tr>
<td>12</td>
<td>Lars Andreas Knutsen</td>
<td>Mobile Data Services: Shaping of user engagements</td>
</tr>
<tr>
<td>13</td>
<td>Nikolaos Theodoros Korfiatis</td>
<td>Information Exchange and Behavior A Multi-method Inquiry on Online Communities</td>
</tr>
<tr>
<td>14</td>
<td>Jens Albæk</td>
<td>Forestillinger om kvalitet og tværfagslighed på sygehuse – skabelse af forestillinger i læge- og plejegrupperne angående relevans af nye idéer om kvalitetsudvikling gennem tolkningsprocesser</td>
</tr>
<tr>
<td>15</td>
<td>Maja Lotz</td>
<td>The Business of Co-Creation – and the Co-Creation of Business</td>
</tr>
<tr>
<td>16</td>
<td>Gitte P. Jakobsen</td>
<td>Narrative Construction of Leader Identity in a Leader Development Program Context</td>
</tr>
<tr>
<td>17</td>
<td>Dorte Hermansen</td>
<td>“Living the brand” som en brandorienteret dialogisk praxis:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Om udvikling af medarbejdernes brandorienterede dømmekraft</td>
</tr>
<tr>
<td>18</td>
<td>Aseem Kinra</td>
<td>Supply Chain (logistics) Environmental Complexity</td>
</tr>
<tr>
<td>19</td>
<td>Michael Nørager</td>
<td>How to manage SMEs through the transformation from non innovative to innovative?</td>
</tr>
<tr>
<td>20</td>
<td>Kristin Wallevik</td>
<td>Corporate Governance in Family Firms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The Norwegian Maritime Sector</td>
</tr>
<tr>
<td>21</td>
<td>Bo Hansen Hansen</td>
<td>Beyond the Process</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enriching Software Process Improvement with Knowledge Management</td>
</tr>
<tr>
<td>22</td>
<td>Annemette Skot-Hansen</td>
<td>Franske adjektivisk afledte adverbier, der tager præpositionssyntagmer indledt med præpositionen a som argumenter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>En valensgrammatisk undersøgelse</td>
</tr>
<tr>
<td>23</td>
<td>Line Gry Knudsen</td>
<td>Collaborative R&amp;D Capabilities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>In Search of Micro-Foundations</td>
</tr>
<tr>
<td>#</td>
<td>Author</td>
<td>Title</td>
</tr>
<tr>
<td>----</td>
<td>------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>24</td>
<td>Christian Scheuer</td>
<td>Employers meet employees EEssays on sorting and globalization</td>
</tr>
<tr>
<td>25</td>
<td>Rasmus Johnsen</td>
<td>The Great Health of Melancholy A Study of the Pathologies of Performativity</td>
</tr>
<tr>
<td>26</td>
<td>Ha Thi Van Pham</td>
<td>Internationalization, Competitiveness Enhancement and Export Performance of Emerging Market Firms: Evidence from Vietnam</td>
</tr>
<tr>
<td>1992</td>
<td>Niels Kornum</td>
<td>Servicesamkørsel – organisation, økonomi og planlægningsmetoder</td>
</tr>
<tr>
<td>1995</td>
<td>Verner Worm</td>
<td>Nordiske virksomheder i Kina Kulturspecifikke interaktionsrelationer ved nordiske virksomhedsetableringer i Kina</td>
</tr>
<tr>
<td>2000</td>
<td>Lotte Darsø</td>
<td>Innovation in the Making Interaction Research with heterogeneous Groups of Knowledge Workers creating new Knowledge and new Leads</td>
</tr>
<tr>
<td>2001</td>
<td>Peter Hobolt Jensen</td>
<td>Managing Strategic Design Identities The case of the Lego Developer Network</td>
</tr>
<tr>
<td>2002</td>
<td>Peter Lohmann</td>
<td>The Deleuzian Other of Organizational Change – Moving Perspectives of the Human</td>
</tr>
<tr>
<td>2003</td>
<td>Anne Marie Jess Hansen</td>
<td>To lead from a distance: The dynamic interplay between strategy and strategizing – A case study of the strategic management process</td>
</tr>
<tr>
<td>2005</td>
<td>Carsten Ørts Hansen</td>
<td>Konstruktion af ledelsesteknologier og effektivitet</td>
</tr>
<tr>
<td>2007</td>
<td>Peter Kastrup-Misir</td>
<td>Endeavoring to Understand Market Orientation – and the concomitant co-mutation of the researched, the researcher, the research itself and the truth</td>
</tr>
<tr>
<td>2009</td>
<td>Torkild Leo Thellefsen</td>
<td>Fundamental Signs and Significance-effects A Semeiotic outline of Fundamental Signs, Significance-effects, Knowledge Profiling and their use in Knowledge Organization and Branding</td>
</tr>
</tbody>
</table>
2. Daniel Ronzani
*When Bits Learn to Walk Don’t Make Them Trip*
*Technological Innovation and the Role of Regulation by Law in Information Systems Research: the Case of Radio Frequency Identification (RFID)*