EXPORT PROMOTION

A Decision Support Model Approach

Editors

**LUDO CUYVERS
WILMA VIVIERS**

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Contents

Chapter 4 | The methodology of the decision support model (DSM)

Part II | Applications of the DSM in selected countries 81

Chapter 5 | Belgium's export opportunities and export potentials in the world:
A quantitative assessment using the DSM approach

Chapter 11 | Exporter's information requirements: competitive intelligence as an export promotion instrument

Chapter 12 | Conclusions and agenda for further research

List of figures

i

List of tables

Annexures

Abbreviations

ASEAN: Association of Southeast Asian Nations

AU: African Union

AWEX: Agence wallonne à l'Exportation et aux Investissements Etrangers

B2B: Business-to-business

BDBH: Belgiesche Dienst voor de Buitenlandse Handel

BGA: Bundesverband des Deutschen- und Aussenhandels (e.v.)

BI: Business Intelligence

BIS: Business, Innovation and Skills

BLEU: Belgium-Luxembourg Economic Union

BRIC: Brazil, Russia, India and China

BSTC: Bilateral Scientific and Technological Co-operation

CBI: Centre for the Promotion of Imports from Developing Countries

CDC: Consultancy Development Centre

CEEC: Central and Eastern European Countries

CI: Competitive Intelligence

CV: Critical Value

DFA: Department of Foreign Affairs

DSM: Decision Support Model

DTI: Department of Trade and Industry

EBOPS: Extended Balance of Payments for Services

EMIA: Export Market and Investment Assistance

EPO: Export promotion organisation

EPRG: Export promotion research group

EPS: Export promotion strategies

EU: European Union

FAO: Food and Agriculture Organisation

FAS: Foreign Agricultural Service

FDI: Foreign Direct Investment

FER: Foreign Economic Representatives

FIT: Flanders Investment and Trade

FWO: Fonds Wetenschappelijk Onderzoek

GATS: General Agreement on Trade in Services

GATT: General Agreement on Tariffs and Trade

GDP: Gross Domestic Product

GNI: Gross National Income

GNP: Gross National Product

HS: Harmonised System

ICTSD: International Centre for Trade and Sustainable Development

IMF: International Monetary Fund

ITC: International Trade Centre

ITED: International Trade and Economic Development

ITPC: Investment and Trade Policy Centre

JCSA: Jewellery Council of South Africa

LPI: Logistics Performance Index

MA: Market Accessibility

MNC: Multi-national Company

NEPAD: New Partnership for Africa's Development

NIC: New Industrialising Countries

NRF: National Research Foundation

NTB: Non-tariff Barriers

NWU: North-West University

OECD: Organisation for Economic Co-operation and Development

ONDD: Office National du Ducroire

OSI: Openness for Services Imports

REO: Realistic Export Opportunity

RCA: Revealed Comparative Advantage

SACEEC: South African Capital Equipment Export Council

SACU: Southern African Customs Union

SADC: Southern African Development Community

SAMAC: South African Macadamias Growers' Association

SARB: South African Reserve Bank

SD: Services Demanded

SI: Specialisation Index

SITC: Standard International Trade Classification

SME: Small- and Medium-sized Enterprises

SO: Sectoral Organisation

SP: Services Produced

SSAS: Sector-Specific Assistance Scheme

STATSSA: Statistics South Africa

TISA: Trade and Investment South Africa

TOM: Trade Opportunity Matrix

TPSF: Trade Policy Strategy Framework

UN: United Nations

UNCTAD: United Nations Conference on Trade and Development

VDBH: Vlaamse Dienst voor de Buitenlandse Handel

WTO: World Trade Organisation

Contributors

LUDO CUYVERS is emeritus professor of the University of Antwerp, Belgium, where he is still Director of the Centre for ASEAN Studies, and extraordinary professor at the North-West University (Potchefstroom campus), South Africa. He received his PhD degree in 1977 from the Faculty of Applied Economics, University of Antwerp, Belgium. Between 1989 and 2009 Ludo Cuyvers was a member of the Board of Directors of Office National du Ducroire (Brussels), the Belgian federal credit insurance company, and since 1991 he is member of Flanders Investment & Trade, the export and investment promotion organsation of the Flemish region of Belgium.

WILMA VIVIERS is a professor and the director of the School of Economics in the Faculty of Economic and Management Sciences at the North-West University (Potchefstroom campus). She received her PhD in 1988 from the former Potchefstroom University of CHE. She received the ITRISA fellowship award for her contribution to the promotion of South African exports, the "Women in Research" award from the South African Association of Women Graduates as well as the NRF rating for established researchers. In 2011 she received the Department of Science and Technology's 'Distinguished Women in Science' runner-up award for her outstanding contribution to building South Africa's scientific and research knowledge base.

ERMIE ANNELIES STEENKAMP is a senior lecturer at the School of Economics in the Faculty of Economic and Management Sciences at the North-West University (Potchefstroom campus). She has recently (2011) finished her PhD on identifying export opportunities for South Africa with special reference to Africa. Her research mainly focuses on export promotion in South Africa and the measurement of market accessibility for South Africa in different countries around the world. She is currently part of a project team for the North-West University to identify realistic export opportunities for South Africa on HS 6 digit level, using a Decision Support Model (DSM).

SONJA GRATER has been a lecturer in the School of Economics at the North-West University since 2008. She completed her PhD in International Trade at the North-West University (Potchefstroom campus) in 2011 on international trade in services. She has published an article from her Master's thesis and a book chapter on her current work on services trade. She has also been involved in several conference presentations. She gained practical experience in the logistical environment while working in the freight forwarding industry for four years.

MARIÉ-LUCE KÜHN is a director and co-founder of IBIS. She has a distinguished career in competitive intelligence (CI) and knowledge building. Marié-Luce has widely published on CI. She participated in international research teams into the CI practices in various countries and is member of the Export Promotion Research Group of the North-West University (NWU). At present she is involved in CI training and developing CI capabilities in companies including tracking and scanning competitive forces for a variety of companies in various industries. Marié-Luce holds a PhD in International Trade from the NWU (Potchefstroom campus).

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Foreword

The research, which is reported in the present volume, is the result of a long collaboration between the editors, going back to 2000, with a comparative study of competitive intelligence of South African and Belgian exporters, funded under the Flemish government's research programme for Bilateral Scientific and Technological Cooperation (BSTC) between Flanders and seven priority countries that included South Africa.

It was a little step from competitive intelligence and the involvement of export supporting organisations, to the broader theme of export promotion. This step was also a natural one for two reasons: Prof. Ludo Cuyvers, since the inception of the Flemish export promotion organisation member of the Board of Directors, had designed a decision support model, in collaboration with Proff. Patrick De Pelsmacker, Glenn Rayp and Irene Roozen, as far back as 1991, and Prof. Wilma Viviers had set up at the North-West University in South Africa an Export Promotion Research Group in 2006, where South African export promotion priorities were discussed.

In 2005, the DSM was mentioned in the "Draft National Export Strategy 2006-2009" of the Department of Trade and Industry (DTI) as one of the two pillars on which South Africa aimed to build its export strategy. In 2006, when Prof. Viviers approached senior officials of Trade and Investment, South Africa (TISA) and the Department of Trade and Industry (DTI) to apply the DSM in South Africa, her proposal evidently met with much interest, which started a close cooperation between the NWU and the DTI. The DSM's methodology was revised and tailored to meet South Africa's unique trade circumstances. It was applied in South Africa in 2007, 2009 and 2010. The endeavour resulted in many research publications and presentations, and the consolidation of the Export Promotion Research Group (EPRG) at NWU, with researchers from Belgium and South Africa being led by Proff. Wilma Viviers and Ludo Cuyvers. Most of the contributions to this publication/book have their origins in the work the EPRG has undertaken since 2006.

As the DSM had been applied to Belgium in the early and mid 1990s, and to Thailand and the Philippines afterwards, during which the methodology had been occasionally modified, a need was arising to take stock of the newest developments of the DSM, as well as to further investigate the many uses of the DSM results. From these the idea of writing the present volume arose.

Following several requests to present the results of the DSM to various government organisations, and as more postgraduate students became interested in undertaking graduate research into export promotion, it was decided the EPRG's research would have greater value if it were to be published. Fellow researchers were invited to contribute to the

publication; the final result being a publication dealing in various topical aspects relating to the development of the DSM, the identification of export opportunities, the application of the model in diverse countries, and the strategic application of results in both public and private sector export promotion activities.

Two of the contributors had already published extended versions of their chapters, or related work, in peer-review journals, and they agreed to re-publication of this work in the book.[1] Some chapters also drew on the work of three doctoral (PhD) theses, completed during the course of the research project.[2]

1   Cuyvers, L. & Dumont, M. 2008. The assessment of public export activities using DSM results: the case of Belgium. *Review of Business and Economics*, 53(1): 69-92.

   Steenkamp, E.A., Rossouw, R., Viviers, W. & Cuyvers, L. 2009. Export market selection methods and the identification of realistic export opportunities for South Africa using a decision support model. [Online.] Available from: http://www.sadctrade.org/node/281.

2   Kuhn, M-L. 2010. *Exporters' information requirements: The role of Comptetive Intelligence in the export promotion of extruders*. Published PhD thesis. Potchefstroom: NWU.

   Grater, S. 2011. *The development of an export opportunities model for South African services.* Unpublished PhD thesis. Potchefstroom: NWU.

   Steenkamp, E.A. 2011. *The identification of export opportunities for South African products with special reference to Africa.* Unpublished PhD thesis. Potchefstroom: NWU.

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Chapter 1

Introduction

Ludo Cuyvers & Wilma Viviers

Export promotion is often regarded as a public good and is, therefore, in many countries supplied, wholly or partially, by the public sector. Export promotion organisations (EPOs)[1] are, however, increasingly facing diminishing returns in the use of export promotion instruments, particularly the more traditional and most widely-used instruments, such as the participation in trade missions, the participation in trade fairs and exhibitions, etc. Empirical support for this assumption can be found in studies such as Alvarez (2004), De Wulf (2001), and others, including for the existence of diminishing returns to scale of the export promotion budgets (see e.g. Lederman, Olarreaga & Payton, 2006).

On the other hand, with the success of the export strategies of a number of Newly Industrialising Countries (NICs) and emerging exporting countries, public export promotion organisations in both the developed and the developing countries are facing an urgent need of enhancing the efficiency of their export promotion activities, the more so as many of these EPOs are confronted with constraints in the available financial and other resources.

From this it follows that EPOs are in need of criteria to prioritise their activities to the markets and products that are offering the most promising export results for the countries which they represent, and to develop the most appropriate export promotion strategies for the products and the markets which they prioritised. Therefore, governments and organisations that want to stimulate their countries' exports, have to identify a smaller number of realistic

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1 Many alternative terms are used in the literature, such as public export promotion agencies (PEPAs), export promotion agencies (EPAs), trade promotion agencies (TPAs) and trade promotion organisations (TPOs). However, for the purpose of consistency, the term export promotion organisation (EPO) will be used throughout this publication.

export opportunities from the vast number of possible opportunities that exist as only a limited number of export opportunities can be explored due to scarce resources (people and finance).

Therefore, as governments and organisations are operating with these scarce resources, a subsequent selection of opportune markets and product groups (product-country combinations) has to be made. Furthermore, the development of an export promotion strategy or the analysis of the effectiveness of existing export promotion programmes has to rely on hard quantitative data on foreign markets.

In order to assist export promotion organisations to better and more efficiently design export promotion programmes, geared to the continuously changing international environment, a decision support model was developed by Cuyvers *et al.* (see Cuyvers, De Pelsmacker, Rayp & Roozen, 1995). It was first applied to Belgium in 1992, 1993 and 1995 for the Flemish EPO (Cuyvers *et al*., 1995) and for academic purposes in 1996, 2003 and 2008, and to Thailand (Cuyvers, 1996; 2004) and the Philippines. After that the methodology was revised and refined to suit better the South African situation in 2007, 2009 and 2010 (Viviers & Pearson, 2007; Pearson, Viviers, Cuyvers & Naudé, 2010; Viviers, Rossouw & Steenkamp, 2009; Viviers, Steenkamp, Rossouw & Cuyvers, 2010).

This model endeavours to make a selection of possible export markets, which are potentially profitable, from the set of all possible worldwide product-country combinations. Using macroeconomic data and international trade statistics, the selection process of the model consists of four consecutive filters, such that results from a previous filter are used as input and starting point in the next filter (for a detailed description of the DSM methodology, see Chapter 4).

In the course of the years also the nature of the international trade data used changed from SITC 2-digits in 1992, to SITC 4-digits data in the 1995 Belgian DSM run, as well as the subsequent runs for Belgium, Thailand and the Philippines, with a last run for Belgium-based on SITC 4-digit data in 2008.

Although in the first application of the DSM to South Africa of 2007 also SITC 4-digit data had been used, it was decided for the subsequent applications to South Africa, Belgium and Thailand, to rather use HS 6-digit data. The rationale for this change was as follows. The export opportunities detected on the basis of the DSM approach are taking the form of product-country combinations and are to be used by export promotion organisations and exporters. These users, however, are not familiar with SITC product categories, but rather with the product codes that are appropriate to perform export and import customs procedures, which are these of the Harmonised System (HS). The drawback of using HS

6-digit international trade data, unfortunately, is that the results are very hard to compare with these from previous applications. Moreover, from the point of view of export promotion the number of detailed export opportunity leads to follow up is staggering and require to be further narrowed down. One of the aims of the present volume is to find better ways to do so and to assist EPOs to prioritise their activities.

Part I of this book focuses on the political circumstances in which the applications of the DSM in Belgium took place, international market selection methods and the development of the decision support model (DSM).

Public export promotion involves a number of "players", such as the EPO, but also the political authorities, sectoral organisations, the business community, individual exporters, etc. It goes without saying that the material and organisational interests of these players are mostly not the same. An analytical tool as the DSM easily leads to a list of export opportunities and priorities, which in its details is at odds with some of these interests. Therefore, the results of the DSM are often met with opposition from some of the "players". Chapter 2 is an attempt to make a public choice analysis of export promotion and which motivates the DSM as an objective tool to counter lobby pressures on export promotion. As a tool for assisting export promotion organisations, the DSM was originally developed for the EPO of the Flemish region of Belgium. In Chapter 2, the subsequent events following its first applications are interpreted from a political economy point of view. Although the chapter starts with a simple game theoretical approach to public export promotion, it is shown that, based on the historical experience with the DSM, in the real world much more "players" and more complicated interactions are involved. Yet, some conclusions are drawn which, we hope, are relevant both for the theory and the practice of public export promotion.

In Chapter 3, the vast literature on market selection methods is reviewed and the DSM approach is assessed within this literature. From this assessment it appears that for the purposes of the prioritising, planning and designing of public export promotion activities, the DSM conforms to the prerequisites that all possible world-wide product-country combinations must be considered and that a limited list of the product-country combinations with the highest export potential for the exporting country should be produced in order for an export promotion organisation to use their resources optimally. The assessment based on the literature review also clearly reveals that, in contrast to other market selection methods, the DSM seems to be capable of handling a large array of possible product-country combinations due to the filtering process used, and finally provide a list of priority products in each country and, vice versa, a list of priority countries for each product.

The DSM methodology, as such, is explained in detail in Chapter 4. As the DSM was developed in 1992 and applied on a number of occasions, also since then a number of changes were

Governments are increasingly confronted with scarce resources, which force their export promotion organisations to seek more efficient ways and methods. At the same time, with the export successes of the emerging economies, public export promotion policies of countries are confronted with diminishing returns, particularly when the traditional export promotion instruments are used. The DSM (Decision Support Model) approach to export promotion, which is adopted and explained in the book, is deeply rooted in the international marketing research literature and allows to identify, in the rapidly changing international environment, the most promising realistic export opportunities for exporting countries.

The chapters explain the DSM approach in detail and illustrate the most recent results for three countries: Belgium, South Africa and Thailand. They further elaborate on newer developments and applications such as the identification of export opportunities for services, as different from products, and the use of DSM results for assessing past export promotion programmes as well as recommending appropriate export promotion strategies at product level. The reasons why and how the identified DSM export opportunities have to be followed up by suitable Competitive Intelligence by export promotion organisations and supporting organisations, is also discussed.

"The methodology behind the Decision Support Model (DSM) contributes significantly to the success of the research and the study. It is a groundbreaking innovation in the area of international trade, especially for trade policy development proposes."

- Dr SJ Jansen Van Rensburg, Trade Negotiations Coordinator,
Southern African Customs Union (SACU) Secretariat, Windhoek, Namibia

"The DSM (Decision Support Model) approach is an ambitious attempt to give export promotion strategies a scientific foundation. The book is a 'must' for both practitioners and researchers in international marketing and export promotion".

- Dr Glenn Rayp, Professor in international economics,
Faculty of Economics and Business Administration, University of Ghent, Belgium

"The DSM research constitutes international best practice."

- Mr Riaan le Roux, Chief Operating Officer of Trade and
Investment South Africa (TISA) of the Department of Trade and Industry (DTI) in South Africa

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