The Influence of the Firm's Environmental Measures Upon Its Export Behaviour & the Level of Exporting: An Empirical Investigation

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A Thesis Submitted to the University of Sheffield in Fulfilment of the Requirement for the Degree of Doctor of Philosophy

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July, 1992
DEDICATION

The Work and efforts extended on this study is dedicated to my parents, my wife and daughter Rand and my son Ahmad.
I would first like to express my deep thanks to God (Allah) for giving me the opportunity and the ability to complete this thesis. My sincere thank and appreciation go to my supervisors Professor Arthur Meidan, and Dr. Kirk-Smith for the effective guidance, advice and constructive criticism during the preparation of this thesis. It is true that without their directions, counselling, and friendship, the completion of the thesis would have been impossible. My thanks are due to the Chairman of the School of Management and Economic Studies and the members of staff of the School of Management for their friendship, encouragement, and the provision of research facilities within the school.

I am very grateful for the helpful comments by Professor R. M. Loynes of the Department of Statistics and Probability, and the other staff members on the statistical techniques and their valuable comments in data analysis.

I wish to thank Mr. R. K. Richard for the computing Centre, University of Sheffield for his assistance and advice in the computing work. Thanks are also due to Mr. David Perrow of the Crooksmoor Library of Sheffield University and the rest of the libraries for their assistance in facilitating the effective use of the Library for the research purposes.

My gratitude also is due to the British Council and the University of Jordan for the sponsorship. My sincere thank is to the Minister of Industry and Trade, Dr. Zeyad Friez, the Chairman of the Amman Chamber of Industry, Mr. kaludon Abu-Hassan, the Adviser of the Chamber of Industry, Mr. Ali Al-Dajni, the Chairman of the Jordan Export Association, Mr. Haleem Abu-Rahmeh for their supports and assistances during the data collection.

I want also to thank all the domain of the study population who were responded favourably to the interview.

I am deeply grateful to my wife and my daughter Rand and my son Ahmad for their moral support, patience, and encouragement during the time this work was undertaken.

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ABSTRACT

This thesis attempts to investigate the influence of the firm's internal and external environmental measures upon its export behaviour (i.e., the variation between exporters and non-exporters) and the level of exporting. In order to achieve the study's objectives, and to conduct this research in a systematic manner, a conceptual framework was developed. The conceptual framework tied together the key factors which are thought to have influenced the firm's export behaviour and the level of exporting, i.e., the internal and the external environmental dimensions.

The design of the research is guided by a number of hypotheses about the relationship between the firm's level of exporting and its internal and external environmental measures on the one hand, and about the discrimination between exporters and non-exporters according to these environmental measures on the other hand.

The required data are collected through structured-directed interviews with 387 respondents. The survey units were the manufacturing firms in Jordan, and the key single respondents approach was employed. The data are analysed by the application of a variety of statistical tests and techniques: (1) Factor analysis (Principle Components analysis); (2) Multiple regression analysis; (3) Discriminant function analysis; (4) Correlation analysis; (5) T-test; (6) the Univariate F-ratio; (7) Chi-square test, and the (9) McNemar test.

This thesis is organised in 10 chapters; the first chapter discussed the research problem, objectives, and hypotheses; chapter two introduced the relevant literature review; chapter three presented the preliminary interviews; chapter four is devoted to the study's conceptual framework; chapter five and chapter six are intended to explain the research design and the research methodology; chapters seven, eight, and nine are concerned the research findings, and finally chapter ten is the conclusions.

Overall, the findings of the study support the following conclusions: (iv)
1. The firm's internal environmental measures are related not only to export behaviour (i.e., the difference between exporters and non-exporters), but also to the level of exporting.

2. The firm's external environmental measures are also related to export behaviour and the level of exporting.

3. In terms of the predictive power (i.e., explanation) of the level of exporting, the firm's external environmental measures are found to be higher than its internal environmental measures.

4. In respect of the predictive power of the classification of group membership (i.e., exporters vs. non-exporters), the firm's internal environmental measures are shown to be higher than its counterpart, the external environmental measures.

5. The factors determining the firm's export behaviour are found to be somewhat different from the factors determining its level of exporting.

6. In comparison to each environmental dimension acting alone, the integration approach of the two internal and external dimensions gives better explanation not only of the prediction of the level of exporting but also of the prediction of export behaviour. Therefore, a better understanding of export behaviour and the level of exporting requires that the firm's environmental measures to be viewed as a whole (i.e., the interaction of the internal and external dimensions) rather than being isolated fragments (i.e., only a single dimension).

7. The study's findings support many of the findings of previous studies. However, some conflicting results are also reported. For example, the age of the decision-maker is not found to be an important determinant either of the level of exporting or export behaviour. These differences raise new explanation when variables are, or are not, important to export behaviour or the level of exporting. And on the basis of the findings, the study is concluded with a number of interesting applications for the current and potential exporters, and for the public policy-makers in Jordan.
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INTRODUCTION

Preface

"... The economic well-being of most countries, especially the smaller ones, is affected by the international trade position. Failure to generate a sufficient volume of exportable goods and services has been a recurring source of economic crisis in many developing countries as well as in the developed ones. Experience suggests that when a country suffers from a chronic trade deficit, the remedy can not be left to Adam Smith's invisible hand. Responsibility for corrective measures must rest squarely on the shoulders of the government. If exports are to be increased with the help of conscious policies undertaken by the government or by the exporters themselves, more is needed to be known about the factors which determine exports and about how these factors interact" (Hirsch 1971).

The theme of this study is based upon the fact that the firm's involvement in export marketing operations is very important for two major reasons. First, for industrial firms, exporting often offers an attractive alternative strategy for growth and survival in an increasingly international market place - typically, it is an outlet for exploiting its comparative advantages and overcoming certain unfavourable conditions in the home market. Second, for a country, exports are known to be essential for the economic well-being of the country as well as a critical factor in the economic development process. Exports not only increase the demand for domestic production but are a major source of foreign exchange to finance the capital goods that are imported. In the long run the balance of payments have to be maintained if the nations' wealth is to improve. A better understanding of the underlying determinants of the firm's export behaviour and the level of exporting is, therefore, critical.
This study will mainly focus on those determinants (variables) which are behind the firm's export behaviour* and its level of exporting. The firm's export behaviour is hypothesized to be a function of the interaction of two major groups of variables (dimensions):

1. Variables related mainly to the firm's internal environment including its organisational and managerial characteristics.

2. Variables related mainly to the firm's external environment including characteristics of the local and foreign environment where the firm already or expects to operate.

The aims of this study are to provide a comprehensive understanding of how these two groups of variables interact and influence the export behaviour of manufacturing firms in developing countries such as Jordan, and also, to suggest solutions to the main export marketing problems that are encountered by them.

* Export behaviour is an expression used here as an indicator for the differences between exporters and non-exporters.
1.1 The Importance of International Trade for Developing Countries

"Even though international trade can not be expected to be engine of economic growth today, there are many ways by which it can contribute to the economic development of today's developing nations" (Keesing 1979).

Hibbert (1989) pointed out the following important contributions of international trade for the developing nations which can lead to the full utilization of underemployed local natural resources. Through trade, a developing country can move from an inefficient production point inside its production frontier, with unutilized resources because of inadequate internal demand to a point on its production frontier with trade. More generally, it allows a developing economy to specialize upon its relatively plentiful resources, while importing products that would be uneconomical, or impossible to produce domestically. Therefore, through international trade the country can probably obtain more of each type of product than it could produce for itself.

According to international trade theory, benefit from trade can also be obtained through economic scale, i.e., an advantage from large scale production. The extent of the division of labour and economics of scale are limited to the size of the market. Therefore, a developing country will be weakened by the high unit cost if it tries to produce a little of each product for its inadequate domestic market. Such a country stands to obtain much by importing many of the products that can be produced cheaply only on a large scale, and by building its manufacturing industries partly around exports, so that a larger scale of production can be achieved.

Furthermore, international trade is the vehicle for the transmission of new ideas, new technology and new managerial and other skills. Indeed, trade goes hand in hand with travel by businessmen and
technical specialists, through which the flow of information and technology is transferred across international boundaries. In addition to which it is an excellent anti-monopoly weapon because (when allowed to operate) it stimulates greater efficiency by domestic producers to meet foreign competition (Keesing 1979).

Learning to export and even trying to export products is valuable partly for this reason. Competition from imports, too, can probably motivate improved performance, because, in developing countries many manufacturers consist of only one or a very few enterprises, as a reflection of the small size of the domestic market. Unless subjected to foreign competition, these firms are more likely to conspire than compete and they will tend to raise prices, neglect quality and perform insufficiently in terms of technology. Import competition helps to eliminate inadequate local firms while motivating others to greater effort and higher performance standards (Hibbert 1989).

However it is worth mentioning that even though international trade is worthwhile for all these reasons, it does not mean that more trade is required in all cases. Trade policy must not only follow these advantages but must also balance them against the gains made from learning to produce goods and services that could be imported.
1.2 Export Expansion Versus Import Substitution as Industrialization Policies for Developing Countries

Since 1970, most developing countries have made a deliberate attempt to industrialize rather than continue to specialize in the production of primary commodities (food, raw material and minerals) for export, as prescribed by traditional trade theory. Industrialization was depended upon to provide; faster technological progress; the creation of jobs to overcome the serious unemployment problems faced by most developing countries; rising terms of trade and more stable export prices and earning, and relief from balance of payment difficulties (Keesing 1979).

Therefore, for development and industrialization, a developing country has to choose between import substitution, or an export oriented strategy. In order to pursue either policy within a certain developing country, an evaluation must be made in the light of the advantages and disadvantages with regard to the country's situation.

Development and industrialization through import substitution includes the following advantages: it can save foreign exchange which would be used to pay for necessary imports (Hibbert 1989), it could be easier for developing countries to protect their domestic market against foreign barriers and against foreign competition than to force developed nations to lower trade barriers against their manufactured export products.

On the one hand, substitution policy leads to insufficient industries because the domestic markets in many developing countries such as Jordan are small. It does not allow them to take advantage of the economic of scale. Furthermore, effective protection from foreign competition and the absence of domestic challenge may enable local firms to increase profit and sales mainly by increasing production.
which is often obtained at the expense of quality services and consumer choice (Hibbert 1989). Finally, after the simpler manufactured imports are replaced by the domestic production, import substitution becomes more capital-intensive and, technologically advanced imports are then replaced by the domestic production.

On the other hand, industrialization and development through export expansion for Jordan as a developing country, will overcome the smallness of the domestic market and will allow benefit from economies of scale. Furthermore, production of manufactured goods for export require and stimulate efficiency throughout the economy.
1.3 Statement of the Problem

Export growth is not only necessary to developed countries but also to developing countries such as Jordan. Export aptitude is an important determinant of a country's economic growth. Therefore, an increase in economic growth and development is tied to an increase in all types of exports (Keesing 1979).

According to Kaynak & Gurol (1987) "less - developed countries (LDS) rely heavily on export marketing to obtain much needed foreign currency necessary for their socio-economic and technological development. Marketing domestic products in foreign markets provide less-developed countries (LDS) with a reliable source of income to purchase the capital goods they need for this development from the industrialized countries of the west".

The search for export growth and expansion is critical for the Jordanian economy. According to a recent economic report about Jordan prepared by the UINDO (1987); "manufacturing exports needed to be enhanced in order to redress problems stemming from an increasing balance of payment deficit and the stagnation of workers' remittance and the drastic fall in the price of phosphates".

Jordan's economic position is suffering deeply from a chronic deficit in its balance of trade. In 1987 and 1988, this was close to $1.7 billion or 37% of its gross national product (GNP), despite the higher contribution of the external trade to gross domestic product (GDP) which reached 143.1% in 1987. This growth of the external trade was attributed more to imports than to exports (for more detail about the problems of Jordan's economy, see Section 1.7.2 in this Chapter).

As a means of improving its economic situation, and in particular, the balance of trade, co-operative planners of the Jordanian government have increasingly put their efforts into the expansion and
promotion of export marketing among manufacturing firms. This was stated in the country's five year plan of economic development for the period between 1986 -1990, (Jordan, Five Year Plan 1986 - 1990). It includes the following goals: (1) To increase national export on an average rate of 12.6% at current prices, (2) To increase Jordan's foreign currency holding through encouraging exports and reducing imports, and (3) To encourage the establishment of export oriented industries.

In August 1988, the government of Jordan announced a series of measures to encourage expansion of exports from Jordan (Ministry of Industry, Unpublished Paper, Government Export Promotion Measures, 1988) which include the following:

1. Encourage establishment of specialised trade companies in order to export Jordanian products and give those companies similar incentives and exemptions which are given to exporters.

2. Establish Trade Centres wherever possible in Arab and Foreign countries, and continue organising specialised international trade fairs.

3. Simplifying customs procedures that relate to the temporary entry system and duty - drawback system.

4. Prepare a feasibility study for the establishment of export credit guarantees and a government insurance agency for exports.

5. Appointment of Commercial Attaches in Arab countries, EEC countries, Japan and the United States.

6. The Central Bank of Jordan to allow exporters to keep 30% of export income in hard currency.

7. Reimbursement of production tax on export products.

8. Acceptance of re-discount of bills in the same currency.

* Most of these measures have not yet put in action.
Despite the Government's efforts to stimulate exports from Jordan, it is recognised that there are a large number of Jordanian industrial firms which are thought to be capable of exporting, but which do not get involved in export marketing activities. Furthermore, some of those firms which are already involved in export marketing, do not do as well as they could.

This might be because these policies are formulated on the basis of macro oriented analysis and the actions recommended which they generate. In other words, the government policy makers appear to have ignored the important unit of the business's economy activity, which is the individual firm.

A better understanding of the factors that are associated with export activity at the firm level might be extremely useful for both public policy makers and managers. For the public policy maker, the knowledge of those factors which determine the export behaviour at the firm level would assist them in formulating an effective export promotion policy. For the decision makers of manufacturing firms, knowledge of the influence of the firms' internal characteristics on export could influence the type of changes that should be implemented within their organisations.
1.4 Research Objectives

Researchers in the past (i.e., studies at the macro level) have tended to ignore behavioural factors in explaining international trade, they have focused mainly on explaining why countries would trade in spite of the fact that countries do not trade but industrial firms do.

Product life cycle theory was an early attempt to draw analytical attention to the firm as the unit of analysis (e.g., Vernon 1966, and Vernon and Wells 1986). According to the Product Life Cycle concept many manufacturing goods such as electronic products and office machinery, undergo trade cycles.

However, most of these studies focused almost exclusively on identifying industrial and other structural and contextual variables as determinants of export activity. To date, their efforts have only been able to identify conclusively technology and product variables as important structural factors contributing to export entry into new foreign markets (Reid 1980).

In other words, these studies have failed to provide an explanation of why, at a point in time, some firms are involved in export marketing and others in the same industry are not, or why some firms are very highly involved in export marketing, while others are not. This failure stems from the tendency of conventional economic theory to ignore the behaviour aspects of the firm and the factors that govern their behaviour.

As a result, the firm's export behaviour has received significant research attention recently, particularly in developed countries (e.g., U.K, U.S.A) where the majority of export behaviour studies have been undertaken.
Despite the fact that a few empirical studies have systematically examined the firm's export marketing behaviour, these studies have tended to focus largely on investigating the influence of the firm's organisational and a managerial characteristics.

However, according to the organisational and the firm's behavioural theories (e.g., Cyert and March 1963), the firm's behaviour is linked inseparably to the environment in which it takes place. In other words, the firm's business behaviour is not only determined by its internal characteristics, but also through the interaction of its internal environmental characteristics and the factors that exist in its external environment.

Therefore, the main aim of this study is to understand how the interaction of the firm's internal and external characteristics can effect the firm's export behaviour and its level of exporting in developing countries such as Jordan.

The key objectives of this research are as follows:

1. To develop a theoretical framework through the integration of international trade theories, the firm and organisational behavioural theories, and export behaviour studies. This framework consists of two broad dimensions; the firm's external environment and the firm's internal environment. The major constructs of each dimension are presented in detail in Chapter Four.

2. To find out the main pattern of factors (i.e., components) that underlie each construct of both environmental dimensions (i.e., internal and external). The firm's internal dimension consists of five constructs: (1) Managerial aspirations level (2) Management's expectations (3) The firm's comparative advantages, (4) Commitment to export marketing activity, and (5) Socio-demographic characteristics of the decision makers. The firm's external dimension includes two
constructs: (1) Economic and commercial infrastructural environment, and the (2) Legal - political environment.

3. To find out the effect of the firm's internal environmental measures (together and separately) upon its level of exporting.

4. To find out the effect of the firm's external environmental measures (together and separately) upon its level of exporting.

5. To find out which environment; the external, or internal, or the interaction of both environments, can explain larger the variations of the level of exporting among manufacturing firms in Jordan.

6. To identify and profile the exporter's and the non-exporter's groups on the basis of their internal and external environmental measures.

7. To compare the firm's internal environmental measures with its counterpart (i.e., the external environmental measures) in terms of their predictive power of classification of the group membership, i.e., exporters and non-exporters.

8. To explain the variation in export behaviour (i.e., exporters vs. non-exporters) according to both internal and external environmental dimension measures.
1.5 Research Hypotheses

In the formulation of the hypotheses which guided the research, several sources were employed as follows:

(1) Previous research studies related directly or indirectly to the phenomena under investigation were reviewed.

(2) In-depth interviews were conducted with a small number of the top executives of Jordanian manufacturing firms.

The main aim of this study was to investigate the effect of the firm's internal and external environmental measures upon its export behaviour and the level of exporting. Thus, the number of hypotheses to be tested will be very large, using the formula the maximum number of inter-relationships that can be generated:

\[ K = \frac{N(N - 1)}{2} \]

Where:

- \( K \) = The number of inter-relationships
- \( N \) = The number of variables

Since \( N = 111 \), the maximum number of the inter-relationships could be up to \((6150)\). In addition to that, it was expected that the findings would lead to the formulation of new hypotheses that could be tested in future research.

Therefore, the main hypotheses of this research stated in their null form are as follows:

(1) There is no significant relationship between the two environmental measures (i.e., internal and external) and the level of exporting, taken separately.

(2) There is no significant relationship between the internal environmental measures and the level of exporting, taken together.

(3) There is no significant relationship between the external environmental measures and the level of exporting, taken together.
(4) There is no significant relationship between each independent variable (i.e., the factors underlying each construct of both internal and external environmental dimension) and the dependent variable level of exporting, taken separately.

(5) There is no significant relationship between the explanatory independent variables which comprise each factor and the dependent variable level of exporting, taken separately.

(6) There is no significant difference (i.e., variation) between the two groups (i.e., exporters and non-exporters) in terms of their internal environmental measures, taken together.

(7) There is no significant difference (i.e., variation) between the two groups (i.e., exporters and non-exporters) according to their external environmental measures, taken together.

(8) There is no significant difference (i.e., variation) between the two segments (i.e., exporters and non-exporters) in terms of their internal environmental measures, taken separately.

(9) There is no significant difference (i.e., variation) between the two segments (i.e., exporters and non-exporters) according to their external environmental measures, taken separately.

(10) There is no significant improvement in the discrimination between the two groups (i.e., exporters and non-exporters) after the addition of the external environmental measures to its counterpart, the internal environmental measures.

(11) There is no significant difference (i.e., variation) between the two segments (i.e., exporters and non-exporters) according to the explanatory independent variables comprising each factor, taken separately.
1.6 The Significance of the Study

Whilst there is a large body of literature on the topic of economic under-development and export, most of it has a macro economic focus and, a perspective of the firm and its problems. National economic policies seem to be developed mainly on the basis of macro oriented analysis and the recommendations which they generate. The success of the actual policies though is often an uncertain affair seemingly dependent on the random tides of economic and political events both at the national and international level.

In the literature, one encounters little empirical research on the exporter at the firm level in an underdeveloped economy and, there is a complete void of Jordanian firm level studies. This study would make a modest contribution by providing background knowledge of Jordan's export as a less-developed country as seen from the firm level.

The information unearthed by the study will contribute to an understanding of export behaviour in the developing countries. More important though, the study would assist and guide the public policy-makers in developing countries in fashioning appropriate policies which take into account, based an empirical evidence, the problems and needs at the level of the firm. Finally, should the study enable developing countries to make some progress in their efforts to expand their export of manufactured products, the aggregate welfare of both exporting and importing nations would be enhanced.

The major potential contributions of the present study can be summarised in the following points:

(1) The area researched is important to the firm as well as to the economy as whole.

* For more details about the contributions and the applications of the present study's findings, see Chapter Ten.
(2) To the best knowledge of the researcher, this study is the first attempt undertaken in the Jordanian environment to study export behaviour at the micro level (i.e., at the level of the individual firm). Most of the exporting studies in Jordan have been carried out at the aggregate level (i.e., at the national level).

(3) An integrated approach is developed for the factors that determine the firm's export behaviour and its level of exporting, and the establishment of propositions. This approach integrates ideas and elements from the theory of the firm (e.g., aspiration level, expectation, etc.), international trade theory (e.g., the principle of comparative advantage), the product life cycle concept of international trade; the result of pertinent empirical studies as well as the results of the preliminary interviews which had been conducted in Jordan by the researcher.

(4) Contribution is made to the scant number of studies that look at factors within the firm as determinants of export involvement.

(5) As shown in the literature, the body of research on export marketing at the firm's level is heavily oriented to the firm in developed countries. This research has broadened its scope to include less-developed countries (LDS).

(6) By examining the determinants of export marketing involvement, Jordanian co-operative planners could formulate an appropriate promotion programme aimed at assisting manufacturers to become very actively involved in exporting.

(7) The managers of manufacturing firms could also benefit from this study by learning about the factors that determine or enhance the level of their firms' exporting.
1.7 Some Background Information About Jordan

In this type of study, it is useful to provide some relevant background information about the test country. The main objective is to familiarize the reader with the country under investigation.

1.7.1 General Economic Features

Jordan can be classified as a middle-income economy with a small domestic market, as reflected by the small size of population, low per capita income and low relative consumption relative to developed countries (See Table 1.1). In 1988, the total population of Jordan was estimated to be 3.38 million inhabitants, with a population growth rate of about 4% which is among the highest growth rate of population in the world (Kanovsky 1989). Jordan's per capital income is very low in comparison to other developing countries, particularly among the Middle East countries, but recently it has witnessed a high growth rate in GNP per capital of about 5.8%. This growth rate is regarded as a remarkable development in Jordan's economy (World Bank 1987).

The total area of Jordan is about 90,000 square KIm. The greater part of the country consists of a plateau lying between 1,000 and 3,000 feet above sea level. Most of this area is desert and supports only a small nomadic population. The country is without many natural resources. It is characterized by a high degree of openness with respect to labour, goods and capital market. Although Jordan is one of the world's major exporters of phosphate, its economy in fact is service oriented, with more than 60% of GDP being obtained from services. Manufacturing contributes only around 15% of GDP and agricultural activities contribute only 8% of GDP (EIU 1986).
1.7.2 Problems of the Jordanian Economy

Due to the heavy dependence on foreign aid, particularly from the rich Arab countries, and the steady decline of this aid, the Jordanian economy started to face serious problems which began to appear around 1988. However, the indications of those problems were apparent from the early 1980's. The main problems can be summarised as follows:

1. **The high rate of unemployment:** The unemployment percentage has risen from 2% in 1981 to about 15% in 1988 and probably 30% in 1990 (Kanovsky 1989). This rate may also have accelerated as a result of the large scale of repatriation of Jordanian workers employed in the Gulf States and Saudi Arabia.

2. **Decline in foreign exchange reserve:** The decline in Jordan's convertible foreign exchange reserve, which reached maximum level in 1986 of ($275) Million (Business America 1987). In 1988, the government was obliged to abandon the fixed exchange rate of the Jordanian currency which lead to a serious devaluation (About 50% against the major currency).

3. **The rising burden of debt repayment obligation:** The debt repayment burden is likely to increase as Jordan substitutes commercial borrowing for official grants and loans from OPEC members and the United States. The external debt rose by 94.7% in the period between 1981-1985, in 1985 interest payment on the government's external debt came to nearly JD 33 Million compared with Jd 11.2 Million in 1985 (Philip 1986).

4. **Steady trade deficit:** Jordan has always suffered from a considerable trade deficit. The trade deficit rose up to $ 1.8 billion in 1987 (see Table 1.2).
Table (1.1)

Some Basic Indications About Jordan's Economy

- GDP (1987): 1,686.3 JD Million
- Population (mid 1988): 3.38 Million
- Labour force (1987): 595,000
- GNP per capital (1985): $1,560
- Exchange rate: (Jordanian Dinar equivalents to $1) 1985: 0.394, 1986: 0.350, 1987: 0.344, 1988: 0.560, 1989: 0.780, 1990: 0.680
- Private consumption: per capita 1972-1982: 4.5%, 1982-1987: 0.5%

* Sources:
5. UNIDO (1987).
1.7.3 External Trade Features

The foreign trade sector plays a vital role in Jordanian economic activity. It has special position due to the size of its contributions to the GDP, to employment and to its role in meeting the country's need for consumer and capital goods. The contributions of the total value of import and export of goods and services to the GNP was about 120% in 1987.

Despite the difference in growth of export and import in the last two decades (see Table 1.2), Jordan's economy suffers from a chronic deficit in its balance of trade. Jordanian economic expansion process is heavily dependent upon imported goods and services, i.e., the ratio of imported goods and services to gross domestic product is very high, this was calculated to be about 82.9% in 1988 (Abuzir 1988).

This huge amount of imports can not be financed only by exporting almost the entire Jordanian GDP. Instead two methods of external finances have been available: the first is the remittance of the Jordanian worker abroad and the second is the financial assistances (Amerah and Al-Hajji 1987). However, since 1982 the latter two sources, i.e., the workers' remittance abroad and the financial assistance from official sources - mainly OPEC countries have shown a declining trend. In 1980, net official transfer to Jordan amounted to $1.31 billion, however, this figure had been halved by 1985.

Furthermore, export growth during the 1980s has generally been higher than the growth of imports. Imports growth was at an annual average rate of 3.5% during 1981 - 1985. While exporting recorded a growth rate of 6.5% during this period, export growth rate slowed after 1986 to be about 4%.
Table (1.2)
Some Basic Indicators About The External Trade

<table>
<thead>
<tr>
<th>EXPORT</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Value (1988):</strong></td>
<td>JD 324.788 Million</td>
</tr>
<tr>
<td><strong>Main Exports (1988):</strong></td>
<td>food and other consumer products goods (54.1) phosphates 929.8, construction material (3.4), others (12.7).</td>
</tr>
<tr>
<td><strong>Main Destination:</strong></td>
<td>Iraq (18.8), Saudi Arabia (12.3), (1988) EEC (4.5) India (15.1), Romania (3.9), Indonesia (3.6) Kuwait (3.9), others (39.1).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMPORTS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Value (1988):</strong></td>
<td>JD 1,022,469 Million</td>
</tr>
<tr>
<td><strong>Principle Imports: (percentage)</strong></td>
<td>Consumer goods (38.7), Raw material (33.4) Capital goods (23.6), others (4.9).</td>
</tr>
</tbody>
</table>

|--------------------------------------------------------|------|------|------|------|------|------|------|------|------|

<table>
<thead>
<tr>
<th>EXTERNAL DEBT (1987):</th>
<th>$ 4 Billion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Debt Services Ratio: (percentage of export earning)</strong></td>
<td>1985</td>
</tr>
<tr>
<td>23.1</td>
<td>28.7</td>
</tr>
<tr>
<td>FOREIGN DEBT:</td>
<td>1984</td>
</tr>
<tr>
<td>2.491</td>
<td>2.470</td>
</tr>
</tbody>
</table>

*Sources:*
2. Jordan, Department of Statistics (1986)
5. UNIDO (1987).
1.7.4 Jordan's Export Pattern and Structure

Jordan's export pattern is characterized by a high degree of concentration on specific commodities and destinations. The domestic commodities export of Jordan consists of three types; consumer goods, raw material and capital goods. Phosphate and potash make up a major portion of natural exports accounting for about 50% of the commodities export. Export of citrus and other fruits and vegetables amount to 12% while the balance was made up of industrial products such as pharmaceuticals, plastic and paints. Two product categories dominate manufactured exports from Jordan, they are chemical and metal products. Together they accounted for about 63% of the total manufacture export earnings in 1985. Food and the manufacturing of textiles are other major export earnings. Their share in manufactured exports stood at 13.5% in 1985.

1.7.5 Characteristics of the Manufacturing Sectors

Jordan may be said to possess a dualistic industrial structure. Most small and medium sized firms are in the textile and food manufacturing branches. The larger establishments with state participation are in the chemical, non-metallic, mineral and petroleum refining branches. These accounted for 46.1% of MVA (Manufacturing Value Added) in 1985 up from 30.0% in 1975 (UNIDO 1987). Most manufacturing enterprise are localized in a narrow industrial belt stretching from Amman to Zarqa in the north West of the country.

According to Abdeljaber (1986) the Jordanian industry was a fast growing economic sector in Jordan, rising from JD 40.5 million in 1974 to JD 237 Million in 1984. In 1985 - 1987, the share of industry (including mining and manufacturing) accounted for 20% of the gross
domestic product and 10 - 11% of the total employees. The share of manufacturing in total export has also risen from 46.6% in 1979 to almost 59 % in 1984. Table (1.3) shows the compositions of export by sector of origin 1981 - 1984.

Table (1.3)
Composition of Export 1981 - 1984

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Exports</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Agriculture</td>
<td>23.5</td>
<td>19.6</td>
<td>19.5</td>
<td>11.5</td>
</tr>
<tr>
<td>Mining Quarry</td>
<td>23.2</td>
<td>22.8</td>
<td>25.7</td>
<td>29.3</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>53.3</td>
<td>57.6</td>
<td>54.9</td>
<td>59.1</td>
</tr>
<tr>
<td>Food, Beverage &amp; Tobacco</td>
<td>8.8</td>
<td>7.8</td>
<td>6.6</td>
<td>6.4</td>
</tr>
<tr>
<td>Wood &amp; Wood Products</td>
<td>2.9</td>
<td>2.1</td>
<td>1.6</td>
<td>2.9</td>
</tr>
<tr>
<td>Textile</td>
<td>5.6</td>
<td>5.1</td>
<td>2.8</td>
<td>7.1</td>
</tr>
<tr>
<td>Paper &amp; Paper Products</td>
<td>1.8</td>
<td>1.3</td>
<td>1.1</td>
<td>1.2</td>
</tr>
<tr>
<td>Chemicals</td>
<td>9.6</td>
<td>11.9</td>
<td>21.4</td>
<td>26.1</td>
</tr>
<tr>
<td>Non-Metallic Minerals</td>
<td>3.4</td>
<td>3.6</td>
<td>3.4</td>
<td>3.6</td>
</tr>
<tr>
<td>Basic Metal</td>
<td>1.1</td>
<td>1.0</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Metal Manufacturing</td>
<td>19.8</td>
<td>23.2</td>
<td>16.9</td>
<td>11.2</td>
</tr>
<tr>
<td>Other Manufacturing</td>
<td>0.3</td>
<td>1.6</td>
<td>0.6</td>
<td>0.2</td>
</tr>
</tbody>
</table>

1.8 The Organisation of This Thesis

Chapter One provides an introduction to the thesis, starting the importance of exporting to the developing countries, the research problem, research objectives and hypotheses, and the significance of the study. It also gives some brief background information about Jordan with special emphasis on the economic dimension. Figure (1.1) gives a summary of the organisation of the thesis.

Chapter Two presents a review of international trade theories, the firm's behavioural, and organisational theories. The chapter primarily focuses on the existing literature related to export behaviour. The main findings and limitations of the previous research are presented.

Chapter Three deals with the preliminary in-depth interviews. It gives an explanation of its main purposes, structure, and planning. It also provides some background information about government export procedures, policies and assistance.

Chapter Four presents the research framework. It gives in detail the main constructs of the study's framework.

Chapter Five deals with research design and data collection. This chapter starts with evaluating the alternative methods of data collection, and provides the basis and rationale for selecting an appropriate method. The selection of the scale of measurement, the key respondent approach, the domain of the study's population, and questionnaire development are also presented.

Chapter Six presents the research methodology. The chapter starts with a review of the alternative statistical techniques available, the assumption behind these methods and the basis for the selection of the appropriate techniques. The techniques used in this research are factor analysis, discriminant analysis, simple correlation, regression analysis, T-test, F-test, Chi-square test, and the McNemar test.
The chapter gives a description of these analyses and the justification for their use in the research.

Chapter Seven presents the research findings related to the main pattern of factors that underlie each construct of the firm's internal and external environmental dimension.

Chapter Eight deals with the research findings and interpretation related to the determinants of the firm's level of exporting.

Chapter Nine provides the research findings and interpretation concerning the determinants of the firm's export behaviour (i.e., exporters vs. non-exporters).

Chapter Ten starts with a summary review of the entire study, it presents the main conclusions of the present study with some implications for manufacturers and the Government. The research contributions in terms of theory and practice also presented. Then, two types of recommendations were discussed, i.e., recommendations for potential and current exporters and recommendations for public policy makers. After that, the limitations of the research are specified. Finally, the chapter concludes by suggesting some areas for future research.
Figure (1.1)

Organisation of the Thesis

Introduction
Chapter (1)

Literature Review
Chapter (2)

Preliminary Interviews
Chapter (3)

The Conceptual Framework
Chapter (4)

Research Design
& Data Collection
Chapter (5)

Research Methodology
Chapter (6)

Research Findings
Chapter (7-9)

The Factor Analysis
Findings
Chapter (7)

The Determinants of
the Firm's Level of
Exporting
Chapter (8)

The Determinants of
the Firm's Export
Behaviour
Chapter (9)

Summary & Conclusions
Chapter (10)
CHAPTER TWO

REVIEW OF LITERATURE

Introduction

2.1 International Trade Theories

2.1.1 The Traditional Theory of International Trade
2.1.2 The Factor Abundant Theory
2.1.3 The Product Life Cycle theory
2.1.4 Limitations of the International Trade Theories

2.2 The Firm and Organisational Behavioural Theories

2.2.1 The Theory of the Firm
2.2.2 The Organisation Behavioural Theories

2.3 Export Behaviour Studies

2.3.1 Studies Relating to the Firm's Internal Environment

2.3.1.1 The Initiation of Exporting
2.3.1.2 The Firm's Management Export Orientation

2.3.1.2.1 Motivation for Export Marketing
2.3.1.2.2 Firm's Management and Export Marketing
2.3.1.2.3 Perceived Obstacles to Export Marketing
2.3.1.2.4 Export Marketing Mix Decisions
2.3.1.2.5 Firm's Demographic and Decision - Maker's Individual Characteristics

2.3.2 Studies Relating to the Firm's External Environment

2.3.2.1 Economic and Commercial Infrastructural Environment
2.3.2.2 Political - legal Environment

2.3.3 Export Modelling Studies

2.4 The Common Characteristics of Export Behaviour Studies

Summary

28
CHAPTER TWO
REVIEW OF LITERATURE

Introduction

The theme of this chapter is two-fold:

(1) To present and discuss empirical studies relating to the supply side of international marketing, by means of a content analysis of the findings of export marketing behaviour studies.

(2) To use this literature review in order to develop a conceptual framework within which to conduct the research. This framework consists of integrated literature at the macro and micro level, i.e., international trade theories, the firm's economic and organisational behavioural theories, and empirical studies of export marketing behaviour.
2.1 International Trade Theories

The historical explanation of the determinants of the factors governing the pattern of trade can be found in traditional economic theories. In general the main purpose of international trade theories can be summarised as follows:

1. Why countries trade?
2. What goods countries will export and import?
3. How gains from trade are divided between trading nations?
4. How adjustments are brought about export when trade partners are distributed (Kinsey 1988).

None of these theories is generally applicable. As El-Agraa (1983) states "there is no single theory capable of explaining international trade in all commodities at all times". Furthermore, international trade theories have a limited utility for explaining the export pattern of the individual firms (e.g., why do firms get involved in exporting), because they assume that trade will be determined by relative factor cost and by demand countries, both parameters can not be manipulated by individuals' firms unless they are monopolies (Hirsch 1971). However, they are still widely accepted as the conceptual basis for understanding and predicting events in the world of international business. Ellsworth (1964) has noted:

"Factors at the micro-level are fundamental elements in explaining the direction and structure of international trade, and their importance, therefore, should not be discounted".

Despite their limitations and their macro economic orientation, international trade theories can be useful for business management studies, and they are still an obvious starting point and continue to form the type of business thinking for many features of the global marketing environment (Kinsey 1988). In this respect Mason et al. (1975) state:

"A thorough understanding of the trade theory can provide the business manager with some comprehension of the large systematic factors influencing his operation in the world".
Hirsch (1971) also noted:

"Trade theories help to delineate the boundaries within which individual firms operate and point to the degree of freedom which they possess and process selection".

Therefore, a better understanding of these theories, their contributions and limitations, are important for the purpose of this research as a theoretical perspective. A brief presentation of the theories and limitations are given below:

2.1.1 The Traditional Theory of International Trade

Traditional trade theory purports to explain why international trade exists and the pattern of this trade. Their answer to this question is based on the concept of economic advantage. The concept of economic advantage holds that "countries tend to specialize in those products in which they have an advantage, namely lower cost production" (Albaum et al. 1989).

In other words, the traditional approach to the explanation of the pattern of trade begins with the proposition that trade, and the pattern of trade, depends on pre-differences in (relative) price. The main question at this stage is why countries differ in their economic advantage (cost or prices). In other words, what factors determine their economic advantages. The explanation has been suggested in terms of two different situations; (1) absolute advantage and (2) comparative advantage.

The absolute advantage was put forward by Smith in 1776 (Smith 1937), and states that a country will export those commodities in which it has an "absolute advantage". The explanation of this depends on assuming: (i) a labour theory of value, i.e., the only cost of production is the number of man-hours (m/h) required per unit of
output multiplied by the wage rate \((w)\), and (ii) that commodity price are cost-determined.

According to economic analysts, Adam Smith's explanation is insufficient to explain the international differences in price or cost (e.g., Bhagwati 1964 and Haberler 1961).

The comparative advantage was developed by the classical economist, Ricardo (1817, 1951). He theorized that nations engaged in trade because of "the special ability of a country to provide one product or service relatively more cheaply than other products or services". It is not vital that a country holds an absolute advantage over other countries.

Ricardo refined Smith's argument by explaining why price should vary between countries. Prices differ because countries producing the commodities, or products under consideration have a different comparative cost structure. Therefore, a country benefits if it produces more of the goods in which it is relatively more efficient and exports these in exchange for those in which its absolute advantage is least. In other words, international trade is determined by comparative rather than by absolute advantage.

However, Ricardo's explanation fails to explain how the actual terms of trade are determined. As Young (1963) observed:

"In his illustration, Ricardo helped to explain the conditions under which specialization and trade would be profitable...that is, why trade take place...but he did not explain how the actual terms of trade are determined...that is, why just so many yards of cloth trade for so many bottles of wine".

Ricardo explains that trade occurs within the limits set by comparative cost. However, his explanation does not give any indication of how the actual rate of exchange rate (export volume) will be determined and how the benefit from trade will be distributed.
Another weakness of Ricardo's law of "comparative advantage" is that it does not consider such aspects as tariff, transport costs, different political ideologies, special interest groups and cultural barriers. However, it is useful to the extent that it helps predict what products, or what amount will be entered into with international trade (Kinsey 1988).

Despite its limitations, comparative advantage theory remains widely accepted (Kreinin 1971). Fayerweather (1969) noted:

"The comparative advantage, resources - distribution approach has persisted to this day as the basic doctrine of the field".

2.1.2 The Factor Abundant Theory

While traditional theories argue that international trade occurs as a result of differences in international production characteristics and factor productivity, due to domestic differences in natural advantage and acquired advantage, other economist analysts noted that these theories do not explain sufficiently the cause of differences in comparative advantages (Heckscher 1919 and Ohlin 1933).

The factor abundant theory, however, offers an explanation for the differences in comparative cost among trading partners (Heckscher 1919 and Ohlin 1933). According to this theory, international differences in supply conditions explain much of the international trade. Supply conditions including factor endowments, as well as productivities.

The underlying assumption in this theory is: trading partners (two countries) have the same demand conditions, use the same technology, use factors of production that are of uniform quality. This means, therefore, the productivity or efficiency of a given resource unit is similar for both trading countries.

The factor abundant theory argues that relative price levels differ among countries, because they have a different relative endowment
factor of production, and different commodities require that the factor inputs be used with differing intensities in their production (Albaum et al., 1989). In short, a country will export (import) those commodities which are intensive in the use of its a abundance (scare) factor. In the discussing of Heckscher – Ohlin's model, Ford (1965) has noted that the basic model is constructed on rigid and very unrealistic assumptions and he then states:

"They are really contrary to what are observed around us, the Ohlin Heckscher premise of perfect competition, no differences in the quality of factors, no product differentiation, lack of increasing return to scale industries, fixed production function are all unrealistic. Furthermore, in connection with the function of these premises, there is scarcely any reference to the social economic forces that are undoubtedly of importance in shaping the pattern of trade, for example, the desire for economic progress and its effect on consumer demand and income is left untouched in the basic theme.

Based upon Ricardo's model, he further developed a model in connection with other factors, such as the social economic forces, and he has come up with the following conclusion:

"The basis of its trade is part of its original factor endowments, but a very important part is played by the level of development actually reached by each country."

Another deficit of the comparative advantage theory was introduced by Kindleberger (1973). He noted the assumption was that each country has the same technological possibilities of producing a given product, i.e., that the production functions are the same in both countries. However, it was found that the existence of trade was based on technological differences between countries. A similar argument was also put forward by Linder-Burenstam (1961) in which he assumed that differences of comparative advantages between nations are due to technological factor rather than those explained by Ricardo. Moreover, because the theory defines the factor endowment broadly (land, capital and labour), it has become difficult to define which
of these factors is for the purpose of its explanation (Kindleberger 1973).

The explanation of trade-flows between different countries therefore, requires an elective view. Different export products and exporting countries are subject to a variety of forces, therefore, different theoretical explanation of are required.

2.1.3 The Product Life Cycle Theory

International trade theories examine why countries trade, but this is insufficient to explain why the production of goods and services are transformed across national boundaries (Kinsey 1988). For various reasons such as rapid technological advancement and the use of multinational corporations, the international theories (based on the economic advantages of factor endowment) have failed to explain the international pattern of trade as they evolved starting in the 1960's.

The international product life cycle theory developed by Vernon (1969, 1971) and his associates—particularly Wells (1968, 1972) has become one of the leading explanations of international trade patterns. According to this theory, the process of movement in world markets can be explained in terms of trade cycle, that is, that trade exists as a result of life cycle.

The model of international trade life cycle has been developed in terms of four stages. The first stage starts when an innovator country (the United States as described by Vernon) establishes a breakthrough in the production of a manufactured item. This country initially has a lack of knowledge about this type of technology and is typically a high-income developed economy. At this stage, because of the relative small market for the product (i.e., the product is only common to a few customers) and the high technological uncertainties (degree of
risk) associated with its production and marketing, mass production is not feasible.

In the second stage, as the product becomes recognized and accepted in the domestic market, the innovator country may begin to export to the nearest countries (West Europe, Canada) which have almost similar tastes and income characteristics. In the third stage, the innovator manufacturer finds that during this stage of growth and expansion, its market becomes large enough to support mass production operations and can eliminate inefficient production methods, which means that an increasing amount can be exported to foreign markets.

With the passage of time, the innovator manufacturer may find its product has become more commonplace and the costs which were associated with its production and marketing, become sufficient to expand his export operations to include other foreign markets (less-developed countries). Although the innovator country's market position may be protected by legal patents, this may break down after a period of time. This is because knowledge tends to be widen in the long term. The foreign producer starts to imitate the production operations, In other words, as time passes, the innovator country begins to lose it comparative edge and its export trade cycle begins to face a declining phase. The trade cycle is complete when the production process becomes so standardized that it can be easily utilized by other countries. At this stage the innovator country may finally become the importer of the product, as its market position is lost due to foreign competition.

The main assumptions underlying the international product life cycle are: (1) The flow of information across national borders is restricted and that products undergo predictable characteristics in the production and marketing character over a period of time and this
assumption is in contrast with the traditional theory assumption, and
(2) The productive process is characterised by economics of scale, that is, change over time, i.e., each country does not account for fixed proportions of expectation for buyers at different income levels given a set of international prices.

As long as the information does not flow freely across national boundaries, this leads to three important conclusions, according to Wells (1972), which are as follows: (1) Innovation of a new product and process, it is argued, is more likely to occur near a market where there is a strong demand rather than in a country with little demand, (2) A businessman is more likely to simply risk capital for the production of the new product if the demand is likely to exist in his home market than if he has to turn to a foreign market, and (3) A producer located close to a market has lower costs in transferring market knowledge into product design, than one located far from the market.

Based on the product life cycle theory, a series of studies of specific industries has provided evidence of international PLC behaviour (e.g., Wells 1968, Hirsch 1971, and Ayal 1981). For example, Ayal (1981) has attempted to test the applicability of PLC theory to Israeli export performance, and concluded that narrow range specialised products is an important determinant of such success.

However, the product life cycle has been attacked on several accounts. According to Terpstra (1978) "the overall model suffers from the recurrent difficulties of life cycle models". Thus, not all products can be expected to follow the cyclical pattern of trade. For example, some products which for a particular reason never get beyond a specific stage, and other products may only have slightly increasing return to scale, or the domestic market may never become large enough
to justify establishing manufacturing capabilities. Others also argue that trade tends to be made on the basis of product differentiation, or specialization rather than on the basis of standardisation as Cannon (1980) noted; "as markets become more sophisticated, there is likely to be an increased adaptation of product rather than simple adaptation".

Although the model neglects the economic differences between nations (i.e., the economic forces which govern each country), because it considers the United States as a focal point for all international trade activities. Furthermore, it provides little help to policy-makers and managers in developing countries such as Jordan. For individual firms, the product life cycle theory only suggests a certain product (i.e., high technological products) as a candidate for export but it does not provide guidance as to how the level of exporting may be improved.

2.1.4 Limitations of the International Trade Theories

Having reviewed the international trade theories and major arguments toward the factors which govern the export behaviour at the country level, the question remains to what extent are these theories able to explain export behaviour at the firms level.

It is contested here that international trade theories are unable to provide us with sufficient explanations for the following reasons:

1. Their assumptions of trade are based on two main factors; the relative factors of cost and demand. However, both parameters are insufficient to explain thoroughly the firm's export behaviour unless they are monopolies (for more detail, see Hirsch 1971).

2. There are many other factors which also need to be taken into consideration. These factors may have a major effect on the firm's
export behaviour, i.e., the firm's internal factors. However, these factors have been ignored in the explanation of international trade (see for example, Cavusgil 1976, Axinn 1985, etc.).

3. The explanations of international trade theories give us little insight into the external factors or the boundaries that firms are assumed to operate within. For example, the theory of comparative advantage fails to address socio-political and economic factors (for more detail, see Ford 1965).

4. Although the product life cycle theory was an attempt to use the firm level as the unit of analysis, to date analysts' efforts have only been confined to identifying technology and product variables that are associated with export activity (Reid 1980).

5. Despite the explanatory power of international trade theories as tools for the promotion of export, they provide little help to policymakers and managers. The international trade theories do not provide any guidance as to the conditions under which firms should be encouraged to export.

Therefore, the explanation of the pattern of trade between countries (export behaviour) is required to reach beyond the identification of the macro-economic factors. There is a need to investigate the factors which govern the pattern of trade at the micro-level.

However, with respect to this study, international trade theories are useful in two ways: 1. The theory of comparative advantage provides some theoretical support for the study of export behaviour at the firm's level (e.g., Schlegelmilch 1983). It is used here in this study's framework to represent one of the major constructs of the firm's internal environmental dimension (see chapter 4), and 2. The Product Life Cycle theory of trade, with its emphasis on domestic
demand as a stimulus to product development, also provides some theoretical background into the impact of the domestic demand on the firm's export behaviour, so that it is expected to be one of the main reasons for initiating the firm's export process.
2.2 The Firm and Organisational Behavioural Theories

2.2.1 The Theory of the Firm

The theory of the firm as a subset of the macro economic field tends to concentrate on the allocation of scarce resources and the determination of income distribution (McGuire 1964). The firm is viewed in economic theory as a transformation unit (production unit), taking inputs and altering these in some way to output, with the limits of its activities set (functions) by specific market situations and restrained by its goal profit maximisation (e.g., Strauss 1944, Coase 1937 and McGuire 1964). In other words, the firm is looked upon as a single unit, or as a person dealing with the problems of marketing, pricing and production.

The assumptions of the classical theory of the firm however, have been attacked on several accounts. One of the major debates is concerned with the validity of the profit maximization as a single or a basic objective (motive) of every firm. But Hoogstrat (1964), Papandreou (1952), and Rothchild (1947) argue that firms may be in pursuit of objectives other than profit maximisation. It is, therefore, difficult to obtain a systematic prediction of the firm's behaviour from the classical economic theory of the firm such as security, sufficient liquidity, convenience of the management achievement, maintenance of the market position, restraining of competition, etc. (McGuire 1964, and Cyert & March 1963).

In approaching the conventional theory of the firm to establish their conceptual behavioural model, Cyert and March (1963) write that:

"There is disagreement about the theory of the firm in three respects: (1) what the theory is (2) the extent to which the theory is defective and (3) appropriate methods for improving the theory"
Several authors have argued that the classical theory of the firm has failed to view the "firm" as an organisation, i.e., this theory is confined to a few characteristics of organisation and there is nothing about complexity of organisation, conflict and control aspects (Cooper 1949, 1951, and Papandreou 1952). Cyert and March (1963) argue that the traditional theory has also failed to provide a model that applies specifically to the decision-making process within the firm, they state:

"Decision-making is treated rather vaguely in the traditional theory of the firm. Most of the discussions of decision-making are concerned with normative prescribing of the steps to be followed in choosing between alternatives".

They also note that the conventional economic theory of the firm has three major characteristics which are; (1) it deals with a particular set of decisions, i.e., particular aspects of the firm, (2) it uses aggregation as a tactic in attempting to specify total market supply and demand curves, and (3) there is no attention to, or interest in, the actual process by which individual firms reach decisions.

2.2.2 Organisational Behavioural Theories

In comparison to the conventional theory of the firm, the organisational theories emphasise on the study of the firm's internal processes, i.e., what goes on in an organisation. Despite the fact that there has been much recent effort to bring some kind of order to the field, the study of the organisation is more widespread than the study of the economic activity (Cyert and March 1963). There are three major branches of organisation theory:

(1) The sociological aspect: This centres on the phenomena of bureaucracy, for example conflict, organisation life cycle etc.
(2) The social psychologist aspect: This is built primarily on an experimental basis with the emphasis on "efficiency" and a major focus on the individual within the organisation as the relevant unit of analysis, for example motivation, leadership style, etc.

(3) The administrative aspect: This focuses on the problems of the executive when dealing with an organisation.

However, existing organisation theory provides only a very partial basis for looking at the theory of the firm. The sociological and social psychological approach have emphasized questions that are only marginally relevant to either the objective of conventional theories of the firm, or the objective of predicting individual firm behaviour. However, the administrative approach is the only branch of organisation theory which contributes to the understanding of the behaviour of the firm, because it is mainly concerned with the internal process of decision making, i.e., how decision are made in organisations and the impact of organisational position on individual goals and perceptions (e.g., Bernard 1938).

Because of many problems and difficulties associated with the use of conventional economic and organisation theories to predict and explain the firm behaviour, Cyert and March proposed the behavioural model of the firm, which states that the firm's economic behaviour can be predicted and explained as a result of interaction between the internal operations of the individual firms and factors within the firm's external environment.

The behavioural theory of the firm which is proposed by Cyert & March (1963) states that it is possible to analyse the process of the firm's decision-making in terms of the variables that have an effect on organisational goals, and the variables that effect organisational expectations and organisational choice.
1. Organisational goals are recognized in terms of two sets of variables: (a) The dimension of the goals, i.e., why things are viewed as important and (b) The aspiration level on any particular goal dimension. It is viewed as a determinant of risk taking behaviour, i.e., the value which the individual places on the achievement of goals.

2. Organisational expectations are seen as the result of drawing inferences from available information, i.e., the belief which individual have that particular actions on their part lead to certain outcomes.

3. Organisational choice (alternative decision), they are: the past experience of the organisation and the past record of organisation slack.

The behaviour theory of the firm is adopted here as a theoretical basis for this study's framework (see Chapter 4), because it suggests that the firm's business behaviour (e.g., export behaviour, the level of exporting, etc.) is a function of the interaction of its internal operation process and factors that exist in outside its boundary (i.e., external environment). Furthermore, variables relating to the firm's internal environment, such as managerial aspirations and management's expectations are constructed in our study's conceptual framework (for more details, see Chapter 4).

In the next sections, the internal and external environmental dimension studies relating to the firm's export behaviour will be discussed respectively.
2.3 Export Behaviour Studies

In the last three decades, the export behaviour of the firm relating to the supply side of international trade theory has been a topic of interest in international business research. A substantial amount of research has been undertaken in an attempt to investigate and to test the factors that determine the export behaviour at the level of the individual firm. Some researchers have developed conceptual models to verify the export behaviour aspects. Nevertheless, the majority of these studies have failed to give a complete account of the factors underlying the export marketing behaviour, since they have tended to focus largely on the firm's internal characteristics, i.e., the firm's decision-makers' attitudes, the firm's organisational characteristics, and have given little attention to the effect of external factors, particularly government procedures and regulations concerning export.

For the purpose of this study, the content-analysis* of the findings of export marketing behavioural studies is presented under the following three major sections:

1. Studies relating to the firm's internal environment
2. Studies relating to the firm's external environment
3. Export modelling studies

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* Separate evaluations of each study were not attempted because most studies tended to be concerned with a narrow aspect of the phenomenon under investigation.
2.3.1 Studies Relating to the Firm's Internal Environment

The content-analysis of this dimension is further divided and discussed under the following subsections:

1. The initiation of exporting
2. The Firm's management export orientation
   2.1 Motivation for export marketing
   2.2 Firm's management and export marketing
   2.3 Perceived obstacles to export marketing
   2.4 Export marketing mix decisions
   2.5 Firm's demographic and decision-maker's individual characteristics

2.3.1.1 The Initiation of Exporting

Studies concerned with the initiation of export activity have tended to focus on the effect of internal and external stimuli. A review of these studies reveals that firms become involved in export marketing operations because of internal stimuli, external stimuli, or a combination of both. Cavusgil (1976) states:

"There seems to be basically two types of stimuli which lead firms into exporting, initial participation begins either as result of management's own interest, or the firm "happens to receive" an external inquiry, without actively soliciting orders".

The internal and external stimuli which are thought to initiate exporting are given in Table (2.1). Literature relating to the effect of the external stimuli, such as competitive pressure, unsolicited order, government incentives, and others have yielded conflicting findings.

Whereas Tesar (1975) in his study of small and medium sized manufacturing firms in Wisconsin (USA) reported that export performance of the competing firms played an important role in inducing a firm to pursue its competitors by being involved in export marketing activities, Johnston & Czinkota (1983) and Rabino (1980) have reported that competitors pressure was not a frequent stimuli for exporting.
Simpson & Kujawa (1974) in their study of small and medium sized manufacturing firms in the State of Tennessee found that the most important stimuli to initiate the firm to export was an unsolicited order from foreign customers. A similar result was also reported by Beamsih and Munro (1986). In contrast, Reid (1980) argued that the role of unsolicited export orders in inducing a firm to export was too simplistic, and could not stand alone as a sole explanatory factor. Additional factors such as adverse home market conditions and fluctuating exchange rates must also be considered. This result was also supported by Weaver & Pak (1990).

The importance of adverse home market conditions as mentioned by Reid was also confirmed by other studies (e.g., Bilkey (1978), Pavord & Bogart (1975) and Wiedersheim - Paul et al. (1978)). Pavord & Bogart (1975) who were more specific, concluded that the primary drive which initiated the firm's management to become involved in exporting activity was related to its management beliefs that adverse home market conditions will threaten the profitability and the eventual survival of the firm. However, the opposite has been indicated by Sinai (1970) who found a relatively strong inverse relationship between the perceived importance of participation in export trade to the firm, and the extent to which the firm felt the degree of saturation of the domestic market to be an important consideration in reaching a decision on whether to enter, or expand its export operation in foreign markets.

Studies about the effect of government export incentives as a reason for initiating exporting also produced conflicting results. While Rabino (1980) concluded that government incentive was one of the major stimuli inducing small firms to become involved in exporting activity, however, this was not supported by Simpson & Kujawa (1974),
Table (2.1)

Export Initiation Process Studies

<table>
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<tr>
<th>Source of Initiation</th>
<th>Discussed By Author(s)</th>
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<tr>
<td><strong>1. External Stimuli</strong></td>
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<tr>
<td><strong>2. Internal Stimuli</strong></td>
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Karafakioglu (1986) and Sullivan & Bauerschmidt (1988, 1990) in their separate studies. Christensen et al. (1987) found that government incentives work more as a secondary stimulus, or reinforcement to the company's decision rather than as a primary motivation for aggressive exporters.

In discussing the effect of the firm's internal stimuli, studies found that a member of the firm's top management (decision-makers) who is interested in, and enthusiastic about exporting is the most important factor. However, it is disputed what factors determine the interest of the top management. While Simpson (1973) postulated that management's diffused impression of the attractiveness of exporting as an abstract ideal influence whether the firm's management takes the initiative in exporting, Wiedersheim-Paul et al. (1978) argued that it is the degree of the firm's international orientation that will determine management initiative in pursuing exporting opportunities.

A study by Cunningham & Spigel (1971) suggested that the international orientation of the firm's management is determined by the firm's management background and traditions, they state:

"The motivation of dynamic exporting, lies rather, in the recognition, that growth and long-term improvement in profitability are only achievable through the adoption of an international marketing outlook."

Similar arguments are suggested by Perlmutter (1969), Pinney (1968), Wiedersheim-Paul et al. (1978), and Simmonds & Smith (1968).

A study by Langston (1976) indicated that for United States firms foreign attitudes of top management correlate with whether or not they had studied a foreign language at school, whether they had lived abroad sufficiently long enough to have experienced cultural shock, and whether that foreign experience was attractive. A study by Pinney
(1971) showed that younger managers tend to be more internationally minded than older ones.

Another determinant of management's drive in initiating exporting is its confidence in the firm's competitive advantage as measured in terms of the management's perception of whether the firm has technology, marketing, financial, or price advantage (e.g., Cavusgil 1976, Tesar 1975, Snavely et al. 1964, Johnston & Czinkota 1982, Schlegelmilch 1983, and Kolhede 1984), whether the firm possesses exclusive information about a foreign market or customer, whether the firm has a potential product, and whether the firm has an efficient distribution network (e.g., Tesar 1975, and Cavusgil 1984).

Based upon the firm's management orientation, or outlook to export marketing, and the type of stimuli needed for initiation in exporting, Tesar (1975) identified three main types of firms: (a) Regionally oriented firms, i.e., firms dependent on the local market, and prejudiced against exporting (b) Opportunist oriented firms, i.e., these firms which are not actively seeking export markets but will not forego opportunities to export. These firms are described as passive exporters and, (c) Strategic oriented firms, these firms are operated by managers interested in promoting the business and their products. These managers are constantly looking for new opportunities including exporting and are described as active or aggressive exporters.

Having reviewed the major findings on the firm's export initiation process (see Table 2.1), the question arises as to which of the various stimuli is the most important for firms to become involved in exporting?. In response to such questions, studies in developed countries reveal that the firm's internal change-agents are the most important stimuli initiating the firm's export process. For
example, Cavusgil & Nevin (1981) in their study of the export marketing behaviour of manufacturing firms in the United States, concluded that; "the real barriers to the firm's involvement in exporting are internal rather than external to the firm". A similar view was also confirmed in Rabino's study (1980), in which he asked the exporters whether they would increase their export involvement without government assistance, he found that thirty six out of forty six surveyed firms have indicated that they did not need government support. However, he states:

"The argument was that as long as a product is unique, price is competitive, or highly acceptable on export market demand, it will increase anyway ..., finally an observation was made that after investing such effort in deciding to initiate exporting, the commitment was firm regardless of government assistances".

The inference was also supported by Kolhede's study (1984). She concluded that the top management's perceptions of government export programme assistances was insignificant upon the export orientation of exporting and non - exporting of small manufacturing firms in the United States. However, it might be argued that the external stimuli, particularly government assistances, are more likely to initiate the firm's export process in developing countries, because it might be difficult for firms in these countries to obtain foreign export orders without government assistances. The intervention of the government here might be due to the lack of financial resources and know - how which many manufacturing firms suffer from. As Kaynak (1982) notes:

".. small scale private traders and producers in LDS will never be in a position to obtain by their own means sufficient and accurate information on conditions. This should be done by government".
2.3.1.2 The Firm's Management Export Orientation

Export orientation has been defined by Abdel - Malek (1974) as "the degree to which management appears willing and feels able to mobilize resources to initiate or expand the firm's involvement in the export market". Kolhede (1984) observed that changes to increase or decrease the firm's export marketing basically depends on export orientation.

She stated "a positive export orientation will cause the manager to decide to increase his firm's export marketing: a negative export orientation will result in the firm's resistance to export expansion". Therefore, the top management's attitudes or their export orientation is expected to have major influence on the level of exporting and export behaviour. The degree of the firm's export orientation is based on the level of management's perception or attitudes toward environmental forces, export barriers, motivations, and their firms' capabilities and comparative advantages.

The content - analysis of the findings of the management export orientation studies are presented under the following subheadings:

1. Motivation for export marketing
2. Firm's Management and export marketing
3. Perceived obstacles to export marketing
4. Export marketing mix decisions
5. Firm's demographic and decision - maker's individual characteristics

2.3.1.2.1 Motivation For Export Marketing

Several studies have tackled the motivation and the initiation of exporting simultaneously (e.g., Schlegelmilch 1983, Johnston & Czinkota 1982). Bilkey (1978) has argued that even though they are often related, it is very useful to maintain a distinction between them, because some firms have been pushed into exporting by an external change - agent, or simply by taking advantage of export
opportunities as they rise without evident objectives in mind, while other firms were truly motivated and deliberately planned to become involved in export marketing activities as an alternative market strategy.

The literature relating to the motivation factors produced conflicting findings (see Table 2.2) as discussed here. The role of profit and its contributions to the firm as export motives are offered by several studies. Johnston & Czinkota (1982) found that the proactive motivation-profit advantage ranked first among all possible motivation factors for exporting. Ogram (1982), Wiedersheim-Paul et al. (1978), Weaver & Pak (1990) and Barker and Kaynak (1992) in separate studies reported a similar result. Cavusgil & Nevin (1981), Jatusripitak (1984), Schlegelmilch (1983), and Bourantas & Halikias (1991) found that management favourable expectations of, or their belief and value toward the contributions of exporting to their firms are the most important motivators for their firms to consider export marketing as an alternative business strategy. However, Hirsch (1971) in his study of 497 Danish, Dutch & Israel manufacturers could not establish such a relationship between the firm's likelihood to export and the export profit expectation. A similar result was also reported by Axinn (1985, 1988).

Bilkey (1978) hypothesized that the differences between these findings could be explained by variations in the experience of firms under investigation in respective of studies. He states:

"The percentage of sales exported by experienced firms tends to vary according to the perceived profitability of exporting but the initiation of experimental exporting seems to relate to non-profit considerations".

However, Bilkey (1982) later contradicts this hypothesis in findings which not only indicate a low correlation between the perceived
Table (2.2)

Motivations For Export Marketing

<table>
<thead>
<tr>
<th>Motive Variables</th>
<th>Discussed By Author(s)</th>
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<tr>
<td>- To offset adverse home market conditions.</td>
<td>Hunt et al. 1967; Cooper et al. 1970; Sinai 1970; Reid 1982; Sullivan and Bauerschmidt 1990.</td>
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</table>
- Management's expectations on profitability and riskiness.


In a review of literature related to the firm s motive for entering international markets:

"The findings fail to provide answers to the important question, due to the lack of empirical evidence of profit objectives and growth objectives. The general tendency is to teach the related literature and not to illustrate the objectives in the initial phase of export investment rather than short term objectives."

Continuing results were also produced about the effect of the firm's current production capacity as a reason for the firm to become involved in exporting. Duques & Rolins (1982) concluded that a major motivation among existing manufacturing was the management's view that exporting provides a means of expanding (utilizing) a firm's unused production capacity. A similar finding was also put forward by Gerola & Deshmukh (1974), Denisen (1978), and Kaynak (1991) in their separate studies. In contrast, the research subjects who participated in the studies conducted by Gerola (1978) and Joinley & MacInnes (1982) did not regard the utilization of unused production capacity as a major reason for small firms to become involved in exporting. They concluded that the major incentive was to earn a profit due to the small firms of incentives involved in exporting activities rather than the utilization of excess production capacity.
relative profitability of exporting and the percentage of total sales exported \( (R^2 = 0.012) \) but also a negative correlation between the perceived profitability of exporting and export experience (Partial correlation = - 0.361). The later result is remarkable in that at the same time export experience correlates positively with the percentage of sales exported (Partial correlation = +.416). This relationship can either be rationalised in that experienced exporters perceive less risk to exporting and are therefore, more willing to accept limited profits in order to increase export sales, or that exporting is indeed less profitable than new exporters tend to perceive.

In a review of literature related to the firms motives for exporting, Cavusgil (1976) notes:

"The studies fail to provide answers to two important questions, one is the relative importance of profit objectives and growth objectives, and the second is whether the passive exporter had any clear-cut objectives in the initial stage of export involvement other than short run objectives".

Conflicting results were also produced about the effect of the firm's excess production capacity as a reason for the firm to become involved in exporting. Brooks & Rosson (1982) concluded that a major motivation among Canadian manufacturing was the management's view that exporting provides a means of reducing (alleviating) a firm's excess production capacity. A similar finding was also put forward by Daniels & Goyburo (1976), Ogram (1982), and Kaynak (1992) in their separate studies. In contrast, the research subjects who participated in the studies conducted by Rabino (1980) and Johnston & Czinkota (1982) did not regard the utilization of excess production capacity as a major reason for small firms to become involved in exporting. They concluded that tax incentives were found to be a major drive for small firms to become involved in export marketing activities rather than the alleviation of excess production capacity.
Rabino (1980) and Abdel-Malek (1974), in separate studies, have examined the notion that the firm's management are motivated to pursue exporting by the prospect that international marketing involvement enhances a firm's reputation. Rabino (1980) refers to this exporting motivation as "Keeping up with the competition" and explains it as follows:

"Some industries are characterized by a high propensity to export. Hence some manufacturers are forced to export and maintain some level of exposure in international trade shows because their dealers or customers expect them to develop an international image".

However, no support was found in studies conducted by Johnston & Czinkota (1982) and Karafakioglu (1986).

The firms' desire for sales stability is considered as a motive factor for exporting. Wiedersheim - Paul et al. (1978) in a survey of Australian exporting revealed that the desire for sales stability with growth was the most frequently mentioned reason for exporting. They indicated that:

"... the avoidance of undue instability in its sales performances is related back to a basic goal of the firm's, i.e. security and survival. The more unpredictable the firm perceives variations in its sales performance to be, the more concerned it will be to find other sources of sales and growth. In order to insulate it from potential disturbances. By raising the risk and uncertainty of present operations, instability reduces the perceived risk and uncertainty of creating and marketing a new product, or selling internationally both of those forms of diversifications provided an insulating function ensuring that a firm while suffering a loss in one market, is less likely to experience a loss in all. Thus where the basic security of the firm is threatened by market fluctuations, a powerful reason for export may be developed".

A similar vein was also put forward by Hirsch (1971), Barker and Kaynak (1992) and Rabino (1980). In this respect Rabino notes:

"The diversification and market product is particularly important from a business strategy standpoint, involvement in export markets facilitating the introduction of the firm's products in a number of market, some of these products may be in a strong position relative to competitors and others may be
in a weak position. Thus, the firm's performance does not depend solely on one market and a few product lines but on the relatively greater significance when these markets do not confirm to the same explicable values as that of the US economy. Thus a down turn in the US economy could coincide with repaid growth of some export markets. This growth can effect the decline in sales in the domestic market".

Barker and Kaynak (1992) reported that search for sales stability through market diversification was found to be one of the most important factors initiating exporters.

However, researchers of the product life cycle theory, Wells (1972) and Vernon & Wells (1986) have argued that the international trade pattern is more a result of a "four-phase cycle" rather than a result of firms seeking to diversify their markets, i.e., the firms move into world markets as a result of a trade cycle. The main problem of the Wells & Vernon approach, is that it regards the United States as the originating point of all export marketing activities as discussed previously (see Section 2.1.3). Furthermore, their approach does not take into consideration the variance between countries, industries and firms.

Several studies, in particular, Cavusgil (1976), Bilkey (1978), Cavusgil and Nevin (1981) and Moon & Lee (1990) have highlighted managerial aspirations for profit, growth and market security as an indication of the extent of the firm's export involvement. Their findings suggested that the high aspiration for both profit and growth are related to exporting whereas low aspiration is related to non-exporting. Higher aspiration for market security and growth have also been associated with non-exporting (e.g., Cavusgil and Naor 1987; Karafakioglu & Harcar 1990). Therefore, research suggests a positive relationship between the desire for profit and the level exporting while the desire for stability may be expected to be negatively associated with the level exporting.
2.3.1.2.2 Firm's Management and Export Marketing

The following studies have examined the effect of a firm's management characteristics such as the quality of management and organization structure on its export behaviour. Doyle & Schommer (1976) found a tendency for non-exporting firms to believe that someone outside the firm should be responsible for proving that exporting would be successful for them. Simpson (1973) in a study of 50 exporting and 70 non-exporting firms supported the notion that the quality of management was the main reason behind reluctance to export. Bilkey and Tesar (1977) reported that the quality of management may vary directly with whether or not a firm initiates exporting.

In differentiating between exporting and non-exporting firms, Reith & Ryan (1981) reported that the exporting firm's management felt more confidence about handling export-related problems than did non-exporting firms. Furthermore, Cavusgil, Bilkey & Tesar (1977), Cavusgil (1984), Layton & Dunphy (1970), Schlegelmilch (1986), Christensen et al. (1987), Malekzadeh (1982) and Bourantas & Halikias (1991) have found that the management of exporting firms tended to be more strategic planning oriented and have a higher commitment to control, and that they allocated resources more systematically to export activities relative to non-exporting firms.

Other analysts have investigated the impact of management assessment of the firm's competitive advantage for exporting upon the firm's level of involvement in exporting. These advantages as described by Cavusgil (1976) are derived from the nature of the firm's product, market, technological orientation, research, and such things as technically superior products and technological level (Table 2.3).

The firm's possession of such advantages will influence its willingness to become involved in export marketing.
<table>
<thead>
<tr>
<th>Advantage(s)</th>
<th>Discussed By Authors(s)</th>
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<tbody>
<tr>
<td>- Distribution advantage</td>
<td>Tookey 1964; Cunningham and Spigel 1971; McDougall &amp; Stening 1975; Philpot 1975; Kizilbash and Maile 1977; Kleinschmidt 1982; Cavusgil and Naor 1987; Schlegelmilch 1986; Louter et al. 1991.</td>
</tr>
<tr>
<td>- Excess capacity</td>
<td>Cunningham &amp; Spigel 1971; Simpson &amp; kujawa 1974; Daniels &amp; Goyburo 1976; Wiedersheim-Paul et al. 1978.</td>
</tr>
<tr>
<td>- Financial advantage</td>
<td>Abdel-Malek 1978; Bilkey &amp; Tesar 1977; Cavusgil &amp; Naor 1987; Malekzadeh and Nahavandi 1985; Cavusgil &amp; Nevin 1981;</td>
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Table (2.4)
Management & Organisational Structure Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Discussed By Authors(s)</th>
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<tr>
<td>- Quality of management</td>
<td>Doyle &amp; Schommer 1976; Simpson 1973</td>
</tr>
<tr>
<td>- Level of management</td>
<td>Tesar (1975, 1977); Kolhede 1984; Simpson &amp; Kujawa 1974; Schlegelmilch 1983.</td>
</tr>
<tr>
<td>- Delegation of responsibility</td>
<td>Daniels &amp; Goyburo 1976.</td>
</tr>
<tr>
<td>- Planning &amp; control</td>
<td>Christensen et al. 1987; Snavely et al. 1964; Layton &amp; Dunphy 1970;</td>
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<tr>
<td></td>
<td>Schlegelmilch 1983; Daniels and Goyburo 1976.</td>
</tr>
<tr>
<td></td>
<td>Meidan 1974; Walters 1985; Daniels and Goyburo 1976; Layton and Dunphy 1970;</td>
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<tr>
<td></td>
<td>Fenwick &amp; Amine 1979; Malekzadeh 1982; Schlegelmilch 1983</td>
</tr>
<tr>
<td></td>
<td>Tesar &amp; Terleton 1982; Snavely et al. 1964; Christensen et al. 1987;</td>
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</table>
Bilkey & Tesar (1977) found that management's perceptions of the firm's competitive advantages play a major role in the exploration of exporting. However, export studies produce conflicting results in respect of the many sources of the firm's comparative advantages. For example, the findings with regard to the technological level as source of the firm's comparative advantages have been mixed. While several studies showed a positive relationship between the level of technology and the firm's propensity to export (Cavusgil 1976, Cavusgil & Nevin 1981, Czinkota & Johnston 1981, Reid 1987, Bilkey & Tesar 1977, Schlegelmilch 1983, and Daniels & Goyburo 1976), others have not established any relationship (Axinn 1985, 1988 and Cavusgil & Naor 1987).

Tesar (1975), Kolhede (1984) and Bilkey & Tesar (1977) in separate studies found that the management's perception of the firm's export capability and the risk involved in exporting may effect the level to which the firm is willing to get involved in exporting activities. While the firm may tend to become involved for the reasons of market stability, the indications are that there is an element of risk-taking which is likely to determine the firm's export marketing propensity. Roux (1979) established a link between the manager international orientation and risk. In addition, from a survey of managers in 120 manufacturing firms, Simpson & Kujawa (1974) concluded that firms which developed into exporters were less fearful of the risk involved in doing so than the firms which did not become exporters. Furthermore, portfolio theory suggest that an exporting firm probably faces less total market risk than a non-exporting firm, because of its market diversification (Hirsch & Lev 1971). Hirsch (1971) in a study of Danish, Dutch and Israel firms concluded that foreign entry is more hazardous than domestic selling. Tesar (1975) found that the
"light exporters" in his sample perceived more risk from exporting than "heavy exporters".

In contradiction to the above findings, Brooks & Rosson (1982) in their study of Canadian manufacturers concluded that the exporters (managers) do not perceive their quality of management as being significantly stronger than non-exporters (managers). Bilkey (1978) has attributed the contradictory results of these studies to the measurements which have been used for this purpose which are highlighted as follows: (1) In the peer evaluation of the efficient way in which firms best perform product planning, advertising, research and sales administration function. For example, Perkett (1963) in his study of British Columbia manufacturing firms found that exporting firms tended to be evaluated more highly than non-exporting firms, (2) The evaluation of the quality of management as rated by their own management; for example, Doyle & Schommer (1976) reported that exporters tended to evaluate their management as more aggressive than did the non-exporters (3) Comparing managers (a) attitude and activities, & (b) the firm's function and organisational structure with accepted good management practice (e.g., Tookey 1964, Cunningham & Spigel 1971, Wiedersheim-Paul et al. 1978, Tesar 1975, and Bilkey & Tesar 1977).

With regard to the firm's organisational structure characteristics, (see Table 2.4) several researchers have found that exporting firms relative to non-exporting firms are more likely to delegate more responsibility (Christensen et al. 1987, Schlegelmilch 1983, Daniels and Goyburo 1976, Snavely et al. 1964, and Layton & Dunphy 1970), having a higher commitment to planning and control (Malekzedeh 1982, Schlegelmilch 1983, Cavusgil 1976 and Beamish & Munro 1986, 1987), have a wider geographic scope (Wiedersheim-Paul et al. 1978, Snavely
et al. 1964 and Axinn 1988), are more likely to have more than one plant (Snavely et al. 1964), have a higher utilization of production capacity (Ogram 1982), and are more likely to have a formal quality control (Da Rocha et al. 1990).

Daniels & Goyburo (1976) found that the amount of organisational control is significantly higher and more decentralised in exporting firms than non-exporting firms. Meidan (1979) suggests that the form of control must be suitable for export market and depends largely on the organisational structure of the firm. However, Tesar & Terleton (1982) found that even companies classified as aggressive exporters tended not to plan their exporting activity. Therefore, Reid (1982) stresses that the function specialisation does not correlate with export behaviour.

2.3.1.2.3 Perceived Obstacles to Export Marketing

Researchers have attempted to identify various obstacles which inhibit exporting by manufacturing firms, the rationale being that a government could stimulate exporting by removing these barriers. Several studies have tended to compare between exporters and non-exporters with regard to their managers' perceptions of the various obstacles to exporting. However, only some of researchers have tried to answer the question whether such perceptions would influence the firm's level of exporting (e.g., Weekly & Bardi (1975), Axinn (1985, 1988) and Burton & Schlegelmilch (1987)).

The results are conflicting, while some studies have found that non-exporting firms perceived significantly more serious obstacles than exporting firms (Bilkey 1970, Simpson 1973, Alexandrides 1971, Rao & Weinrauch 1974, Tesar 1975, Bilkey & Tesar 1977, Schlegelmilch 1983, Kolhede 1984, Sharkey et al. 1989, Keng & Jiuan 1989, Tseng & Yu 1991...
### Table (2.5)

**Barriers to Export Marketing**

<table>
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<tr>
<th>Types of Barriers</th>
<th>Discussed by Author(s)</th>
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<tr>
<td></td>
<td>2. Identification of potential markets</td>
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<td>3. Packaging adaptation</td>
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<td>4. Difficulty in meeting product specification</td>
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<td>5. Export transaction</td>
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<td></td>
<td>6. Promoting products overseas</td>
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<td></td>
<td>7. Provision of follow up services</td>
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<td></td>
<td>8. Pricing for foreign markets</td>
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</table>
and Barker & Kaynak 1992), others found either no significant relationship, or an inverse relationship that non-exporters perceived fewer obstacles than did exporting firms (Doyle & Schommer 1976 and Bilkey 1978). Kolhede (1984), in her study of export orientation of small manufacturing firms in the United States, reported that exporters' assessment of the obstacles related to exporting are insignificant determinants of their degree of export orientation. Kolhede notes:

"It appears that although the non-exporter might cite the various obstacles surveyed in research as justifiable reasons for his refusal to export. Such reasons could be offered merely as rationalization or excuse and not truly underlies his negative export orientation".

Bilkey (1978) concluded that these seemingly contradictory findings can be explained by differences in the export development of the firms in the various studies. Furthermore, non-exporters (which Bilkey defined as firms in export stage one or two, see section 2.3.3) have no basis for knowing their barriers to exporting, and they, therefore, tend to list fewer obstacles to exporting than do exporting firms, whereas it could be different to those firms which have explored the feasibility of exporting (those firms in stage three).

This suggests that the means of overcoming such obstacles, from a policy viewpoint, will need to vary according to a firm's level of exporting experience. Bilkey (1978) then concluded that the government promotion programme which aims to remove these obstacles should be directed at the experienced exporter rather than at the non-exporter. However, it can be argued that Bilkey's explanation is insufficient, because it does not necessarily follow that two firms at the same stage of export development will perceive similar problems. Other factors such as management skills, organisation resources, marketing orientation should also be included.
Howard & Borgia (1990), Samiee & Walters (1990a) and Barker & Kaynak (1992) indicated that there are some significant differences in the pattern of problems encountered by small and large firms. Barker and Kaynak (1992) reported that the lack of trained personnel for export operation was a more critical problem for firms with less than ten employees while it was not perceived as an impediment by those respondents who had more than fifty employees. Samiee & Walters's study (1990a) revealed that while larger firms are more concerned with foreign market information, the small firms focus is more on operational problem such as export finance. However, Verhoeven (1988) reported that the most serious problem encountered by small-medium sized enterprises in Netherlands was the lack of knowledge about foreign markets.

Within the various classes of barriers (Table 2.5), it was found that the most important problems inhibiting firms in developed countries are price intensive competition in foreign markets, and a lack of knowledge about foreign market opportunities. In a comparative analysis of the export problems encountered by Japanese & German manufacturing firms, Dichtl et al. (1986) concluded that foreign competition, pricing, and personal expertise ranked as the most important export problems in both nations. Also Alexandrides (1971), in his study of the Georgia firms in the United States, concluded that foreign competition was significantly the most important problem encountered by these firms, while government restriction was found to be insignificant in inhibiting exporting. A similar result was also reported by Sullivan and Bauerschmidt (1989).

Furthermore, Korth (1991) reported that a lack of knowledge of foreign opportunities was considered one of the major reasons for the reluctance of American firms to enter international markets. Hook &
Czinkota (1988, 1989) also indicated that the difficulty of locating foreign markets was perceived as the most important problem by the current and potential exporters of Hawaiian firms.

Therefore, it can be concluded that such problems are mainly related to the firm's internal environmental characteristics (e.g., the comparative advantage) rather than to its external environmental forces. Although these problems cannot be underestimated to have influenced manufacturing firms, which are operating in developing countries, it can, however, be argued that the firm's external barriers are expected to be highly rated by the decision-maker, i.e., problems such as government restrictions, inadequate infrastructure, and poor transportation are expected to be the most ranked problems perceived by Jordanian firms.

2.3.1.2.4 Export Marketing Mix Decisions

There is a conspicuous lack of research studies examining the export marketing mix decisions within the context of the firm's export behaviour. Although a few studies have been undertaken to investigate the association between the firm's export behaviour and their export marketing decisions (elements), they have shown relatively definitive findings.

Functional or marketing advantages have been found to differentiate between export prone and non-export prone firms. For example, Layton and Dunphy (1970) found that exporting firms are more likely to have higher price premiums and consider after sales promotion awareness, use lower price premiums and consider after sales more important than non-exporting firms. In a similar vein reported by Schlegelmilch (1983), it was found that exporters are more confident in their marketing skills than non-exporters and they also perceive themselves as employing marketing techniques more frequently.
Kaynak and Kothari in their study (1984) found that managing of the marketing mix is a major determinant in the firm's commitment for international marketing.

Therefore, the degree of the firm's needs to adapt or manage its marketing mix strategies to foreign market requirements is expected to have influenced the firm's probability to export. However, Kolhede (1984) reported that the degree of management willingness to modify export marketing elements has a negative association with the export orientation of smaller (exporting and non-exporting) manufacturing firms in the United States.

The findings related to export marketing mix decisions are discussed below:

(1) Product Policy

Product policy is commonly considered to be the most vital element of marketing mix decisions, regardless of whether the firms operate in the domestic market, or are involved in foreign markets operations. In this respect Terpstra (1978) notes:

"International product policy is the cornerstone around which all other international marketing activities must be designed".

The most important decisions concerning the product policy is whether, and to what extent products should be modified (adapted) to meet foreign consumer requirements. The product design for the foreign market is very important in winning export business, as Thomas (1969) notes:

"The key success in product planning is to adapt the product line to the tastes and economic characteristics of a particular foreign market."

The following studies produce conflicting findings with regard to product adaptation policies. Studies by Weinrauch (1973) and Sinai (1970) reported that the physical product modification was not
### Table (2.6)
Export Marketing Mix Studies

<table>
<thead>
<tr>
<th>Elements</th>
<th>Discussed by Author(s)</th>
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<tbody>
<tr>
<td>(adaptation vs. standardization)</td>
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<tr>
<td>(distribution channel)</td>
<td></td>
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<tr>
<td>- Other marketing functions</td>
<td></td>
</tr>
<tr>
<td>2. Use of external information</td>
<td>Daniels &amp; Goyburo 1976; Mayer and Flynn 1973; Philpot 1975; Reid 1983; Cavusgil 1983.</td>
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</table>
regarded as significantly important among the sample they examined. Christensen et al. (1987) also reported that successful exporting was more likely to be the manufacture of standard products (products that were sold in the domestic market, not designed and manufactured only to fill foreign customer specification). Seifert and Ford's study (1989) indicated that neither the size of the firm nor its experience in exporting would influence its product policies. He concluded that firms do not believe that product modifications are necessary. Koh's (1991) study revealed a similar result.

However, Meidan (1974) concluded that firms which are export marketing oriented tend to specialize their products for certain overseas markets. Cooper and Kleinschmidt (1985) & Walters and Samiee (1990) in separate studies found that adapting products for specific markets was correlated with a high growth of export sales and profitability. Samiee & Walters (1990a) reported that the differences between regular exporters and sporadic exporters are more likely to be due to the suitability and adaptation ability of products for international market and export marketing programmes. A similar result was reported by Ortiz-Buonafina (1990). His study indicated that the larger the firm is, the higher likelihood that the firm would be engaged in product and market adaptation policies.

These contradictory results can be attributed to many factors, such as: (1) either that export operations are insignificant to these firms under investigation, as their aim might be only to dispose of surplus products which are not sold in the domestic market, or (2) it might relate to the type of the firms in the countries under investigation (i.e., the nature of their products), because industrial products require a somewhat different product policy in comparison with consumer products.
(2) Pricing Policy

Export policy plays an important role in connection with other elements of marketing. In discussing the pricing methods used by exporting firms Cavusgil (1976) notes:

"Export prices seem to be determined largely by cost consideration rather than demand analysis. Most firms build up the final price via works direct cost and overhead and profit margin".

In a somewhat different statement to Cavusgil's, Khan (1978) found that although 35% of the firms base their prices on cost, a higher percentage, i.e., 45% price their products as high as the market can tolerate.

The decision of adapting pricing policies to foreign markets is very likely to effect the firm's export involvement. However, studies in this respect produced contradictory results. Weinrauch & Rao (1974) in their study of Arkansas (USA) export manufacturing firms, to determine the extent to which marketing variables would have to be modified for exporting, found that pricing and credit policies required the least modification in exporting. Samules et al. (1992) reported that smaller firms are not willing to alter their export pricing policies. Seifert & Ford's study (1989) revealed that exporters appear to use standardised pricing (i.e., the export prices were the same as the domestic prices).

However, Schlegelmilch (1983) in discriminating between exporting and non-exporting firms with regard to the pricing policies such as differentiation prices, reported that exporters are more inclined to differentiate the price by region than non-exporters. Kirpalani & Macintosh (1980) in their study also concluded that pricing was significantly associated with the firm's export performance. A similar result was also reported by Koh (1991).
Traditionally, promotion policy is divided into advertising, sales promotion, and public relations. With regard to these methods and their degree of importance in export marketing, the export studies revealed mixed findings as we discuss below. While Brasch (1981) confirmed the hypothesis that more profitable firms are more prone to show an interest in international trade shows (this statement has to be treated carefully as it is based on a very small database, and reflect the view of the firms rather than factual statements on their profitably). Cavusgil (1984) and Weinrauch & Rao (1974) in separate studies found that promotion was not at all important. In this respect Cavusgil states:

"promotion appears to be the least significant element of the marketing mix among the firms surveyed"

The justification for this statement was provided by Sinai's study (1970) in which he found that a large proportion of firms surveyed leave promotion to their agent, it is conceivable that firms which indirectly export underestimate the impact of promotion. The influence of advertising on the export ratio is hardly discussed in the literature; one little contribution stems from NEDO (1977) that "an expected association between export sales and the advertising budget allocation to the export market is strongly confirmed", a similar vein was also put forward by Schlegelmilch (1986), in which he reported that exporters perceive advertising techniques to be more important than non-exporters and assessed that successful exporters are more used to staff promotion and trade fairs than less successful exporters.
(4) Distribution Policies

Although there is a consensus in the literature with regard to the importance of distribution policy, the findings of the value of its specific distribution policy are conflicting. However, it is not surprising, since the selection of distribution policy is determined for the firm by a number of factors, such as nature of product, resources availability, experiences of the firm, scope and complexity of distribution functions, availability of inadequate distributors in foreign markets, etc. Therefore, no distribution system can be right or wrong, because it always has to be related to the specific situation of a firm.

In the selection of the distribution policy and its impact on the level of exporting, Pinney (1971) observed that the use of a direct distribution method seems to become more desirable with an increase in foreign trade involvement. In this respect Cavusgil (1976) notes:

"When foreign sales account for only a marginal proportion of the firm's total business, firms tend to use an indirect method of distribution, once the volume of export sales reach a certain level, and the foreign market becomes more important, the use of direct distribution becomes increasingly desirable".

The BETRO'S report (BETRO 1977) points out that in the firms surveyed, direct selling was significantly associated with the higher export ratio. Meidan (1974) observed that the most effective channel of distribution marketing oriented firms is selling directly through the overseas importer, while the export oriented firms consider the most effective channel of distribution to be selling through an exclusive agent. Koh's (1991) study suggested that exporting directly to the final end-users is the most profitable channel for industrial goods. However, Tookey (1964) highlighted the point that most firms did not restrict themselves to one market for selling. A little
support was provided by Cavusgil and Naor (1987) to Tookey's statement. However, Kirpalani and Macintosh (1980) and Madsen (1989) in separate studies concluded that distribution did not have any significant relationship with sales volume.

It can be concluded that the degree to which the firm needs to adapt or the willingness of commitment to its marketing mix policies to foreign market environment conditions is expected to have influenced its level of exporting. In developing countries it can be assumed that the higher the degree that the firm needs to adapt its business operations (i.e., marketing mix policies) to meet the foreign market conditions, the lower its level of exporting will be. It might be that firms in developing countries tend to be less marketing orientated than firms in developed countries. As Cateora & Hess (1987) noted: "Marketing orientation is neglected in developing countries". Also, Kaynak (1982) states:

"in the prevailing atmosphere of staff international competition, it is extremely difficult for a developing country to secure an overseas order unless it makes a planned and systematic effort in the direction of product adaptation. No developing country can think of pursuing a policy of product expansion as that done by some multinational corporations".

2.3.1.2.5 Firm's Demographic and Decision - Maker's Individual Characteristics.

Several studies have investigated the effect of the managers and the firm's demographic characteristics upon export behaviour and the level of exporting. The findings of these studies are discussed below:

(1) Decision - Maker's Profile and Export Marketing

There is a broad agreement in the literature on export behaviour that the decision - makers' attitudes and characteristics are critical not only with regard to export initiation, but also significantly to the level of exporting (e.g., Cavusgil 1976 and Schlegelmilch 1983).
<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Discussed By Author(s)</th>
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<tbody>
<tr>
<td><strong>Age</strong></td>
<td>Layton and Dunphy 1970; Pinney 1968; Reid 1983; McConnell 1979; Dichtl et al 1984; Cheong &amp; Chong 1988; Cavusgil &amp; Naor 1987; Moon &amp; Lee 1990; Karafakioglu &amp; Harcar 1990.</td>
</tr>
<tr>
<td><strong>Proficiency in foreign language</strong></td>
<td>Simpson 1973; Langston &amp; Teas 1976; Reid 1981; Cavusgil and Naor 1987; Schlegelmilch 1983; Dichtl et al. (1984 &amp; 1990); Cavusgil &amp; Naor 1987; Karafakioglu &amp; Harcar 1990.</td>
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</table>

Studies about the decision-maker's age also produced conflicting findings. While Layton & Dunphy (1970) and Pinney (1968) reported that younger managers are more likely to engage their firms in exporting than older ones, Cheong & Chong (1988) in their study of the furniture industry and the electronic industry reported that managers of furniture exporting firms were older than their counterparts in non-exporting firms. Moon & Lee's study (1990) showed that the manager's personal characteristics (i.e., age, education and experience) were not related to export stage development. Bourantas & Halikias's study (1991) also produced a similar result. Their study indicated that the decision-maker's characteristics (i.e., education, knowledge of language and experience) were not found to be important in discriminating between systematic exporting firms and non-systematic exporting firms.
Other mixed results are also revealed regarding the effect of the decision manager's language skills on the level of exporting. While Schlegelmilch (1986), Khan (1978), Langston (1976), Tesar (1975), Mayer & Flynn (1973) and Karafakioglu & Harcar (1990) show a positive relationship, Simmonds and Smith (1968), Reid (1980), Daniels & Goyburo (1976) and Cavusgil & Naor (1987) have attached either little or no relationship to such skills.

In the area of the decision-maker's experience studies also revealed contradictory findings. While Langston & Teas (1976), Axinn (1985), Karafakioglu & Harcar 1990 and Da Rocha et al. (1990) found that the amount of such experience would bear a significant positive relationship with the degree of the manager's orientation and the firm's export behaviour, Ogram (1982) did not find experience to be strongly underlying the determinants of export behaviour among small and medium sized exporting and non-exporting firms of Georgia.

(2) Firm's Demographic Characteristics and Export Marketing

Not only the decision-maker's characteristics have been studied but also the firm's demographic characteristics, such as size, ownership, and experience. The firm's size structure has received great attention in the research literature. The findings of studies about the relationship between the firm's size and its propensity to export have been mixed and inconclusive. While some studies found no relationship (Snavely et al. 1964, Doyle & Schommer 1976, Bilkey & Tesar 1977, Johnston & Czinkota 1982, Kirpalani & Macintosh 1980, Axinn 1985 & 1988, Keng & Jiuan 1989, Ali & Swiercz 1991, Samiee & Walters 1990a & 1991, Bourantas & Halikias 1991 and Liouville 1992), others have revealed a positive relationship (Tookey 1964, Simmonds and Smith 1968, Reid 1980, Karafakioglu & Harcar 1990, and Ortiz-
Buonafina (1990). Tookey (1964) found that larger firms tend to be more successful in exporting. Simmonds and Smith (1968) reported that firms with less than 300 employees demonstrate a lack of interest in exporting, and Reid (1980, 1983 & 1985) concluded that the size of a firm predominantly affects the export entry into new foreign markets. However, Gripsrud's study (1990) indicated that based upon the experience of the firm, smaller firms tended to have a more positive attitude toward exporting than the larger ones. He explained that his finding might be related to the different aspirations and goals of management of the firms under investigation.

Louter et al. (1991) indicated that the export marketing practice and strategies would be influenced by the size of the firm. His study revealed that medium-sized exporters approach exporting with a more systematic approach and segmented their markets more often than small firms. Culpan (1989) also concluded that firms demonstrate behavioural differentials in export performance according to their sizes. However, Czinkota and Johnston (1983, 1985) indicated that the size of the firm does not make a difference in exporting practice.

Bilkey (1978) suggests a possible inter-correlation of the firm size with the quality of management and process, that size could vary directly with a firm's propensity to export. In another study in 1982, he found that firms which had obtained their own initial export orders were much larger than firms where the initial export order was unsolicited.

Sharrard (1975) postulated that company size to a great extent dictates the size of business opportunities that can be undertaken. For example, small firms find that the risk is too great and capital demands too high to undertake very large research projects.
Table (2.8)

The Firm's Demographic Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Discussed By Author(s)</th>
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<tr>
<td>- Ownership</td>
<td>Daniels &amp; Goyburo 1976; Abdel-Malek 1974; McDougall &amp; Stening 1975.</td>
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Withey (1980) reported that the more employees, the greater the firm's probability of engaging in exporting, even among small firms with less than 200 employees. Further support for the positive relationship was provided by Hirsch & Adar (1974), Khan (1978), and Schlegelmilch (1983).

Studies by Hirsch (1971) and Cavusgil (1976) attempted to reconcile these findings by suggesting that a correlation between size and export propensity occurs only within a certain range of a firm's size, which excludes only very small firms (where no correlation between exporting and size is observed). Cavusgil (1984) later argued that firm size is an unreliable indicator of export activity, he states:

"Size might be seen as an approximation for associated advantages of scale including bargaining power and the capacity to hire better trained managers than suggesting a comparative advantage based on lower costs and subsequently lower price".

In respect of the firm's age which is expressed in terms of the firm's length of time in business or exporting, findings are also mixed. While some studies reported that the firms' export activity is positively related to the age of a firm (Snavely et al. 1964, Alexandrides 1971, Wiedersheim - Paul et al. 1978, McDougall & Stening 1975 and Ali & Swiercz 1991), other studies concluded that firms tend to be more interested in a foreign market at an earlier stage of their existence (Brasch 1978, Garnier 1974, Ursic & Czinkota 1983, Ogram 1982, and Daniels & Goyburo 1976). Kirpalani & Macintosh (1980) reported a negative association between age of the firm and its export activity, they found that new firms tended to be more anxious to export than seek growth through the market. In a similar vein reported by Ursic & Czinkota (1983) that the younger firms export a larger percentage of their sale and have a more favourable attitude about exporting than older ones. Tseng & Yu (1991) also reported that
exporters have been in business for a significantly shorter period of time than non-exporters. However, Samiee & Walters's study (1991) indicated that the regular and sporadic exporters are not different in terms of the number of years in business. Keng & Jiu'an's study (1989) does not support the contention that younger firms are more likely to be interested in exporting, either.

Cavusgil & Naor (1987) highlighted an inverse relationship between the firm's age and export profitability they stated:

"Although the difference is not significant, it is conceivable that non-exporters are more optimistic about export profitability due to their lack of experience and unfamiliarity with their activity, for example many associated costs of export are not well known to the non-exporter".

Studies about the effect of the ownership factor on the firm's export behaviour are also produced mixed results. While Abdel-Malek (1974) found little or no significant differences between the firms domestically owned and the firms foreign owned in terms of their export orientation, Daniels & Goyburo (1976) were more clear in their conclusion in which they reported that the term ownership should be interpreted in the light of the two kinds of ownership; the first is divided according to the domestic legal structure which includes, for example, individual, cooperative, cooperation and state, and the second is divided according to which the firm belongs either to domestic owned or to overseas owned. Regarding the former they found no significant relationship, but it was significant with regard to the second division. They reported that foreign owned firms are more likely to have an interest in exporting rather than those owned domestically. A similar vein was reported by Layton and Dunphy (1970) who concluded that exporters are more likely to be firms owned overseas.
2.3.2 Studies Relating to the Firm's External Environment

The concept of environment with its components and relevant dimensions has not been well specified in the literature (Lawrence & Lorsch 1967 and Thompson 1967). One of the shortcomings of much of the theoretical and empirical research on organisational environment has been the failure clearly to conceptualize organisational environment, or the elements comprising it (Duncan 1972).

However, various authors have implied that the businesses environment is composed of physical, cultural and technological components (Homans 1950), and that the organisational environment can be broken into external and internal environments (Duncan 1972). While the internal environment is viewed as consisting of all the relevant physical and nominal factors within the boundaries of the organisation that influence the decision-making behaviour of individuals in the organisation, the external environment is viewed as consisting of those relevant physical and non-physical factors outside the boundaries of the organisation or specific decision unit, that are taken directly into consideration. The multifaceted nature of constituent groups in the external organisational environment has been presumed by a number of writers (e.g., Dill 1958 and Estafen 1971) to include; competitors, suppliers, consumers, stockholders, governments, regulatory agencies and the labour market.

The organisational behaviour literature reveals that the firm's organisation structure is largely directed and shaped by its environment. However the degree of the firm's adaptation to its environment is based upon its management's perception of these environmental forces. In other words, the firm's behaviour and objectives are very likely to be determined through the interaction of
its internal operations with factors existing in its external environment. In this respect Yasai-Ardekani (1986) writes:

"Management's perception of the magnitudes and direction of social, political & economic forces influences organisational structure, such forces should manifest themselves as constraints, threats and opportunities from the organisational perspective".

Aldrich's concept of environment capability states that organisation seeks out environments that permit organisational growth and stability (Aldrich 1979). Such growth and stability may allow the organisation to generate slack resources (Cyert & March 1963) which can in turn provide a buffer for the organisation during periods of relative scarcity. Aldrich clearly articulated the view that the resources required for organisational survival are the most relevant in defining organisational environment. He stated that:

"Environment affects organisation through the process of making available or withholding resources and organisational firms can be ranked in terms of their efficiency in obtaining resources".

In the business - policy literature, Douglas (1975) demonstrated that the interaction between a firm and its environment is related to its performance. This finding was supported by the hypothesis that the performance of the firm is primarily determined by the net result of all managerial actions, or interaction within the firm which is reflected by some transactions across the environmental interface. The structure - behaviour - performance model of industrial economists also indicates that the firm's environment, influences its behaviour and the directions of its business strategies (e.g., Koh 1991).

In discussing the effect of the environmental factors on the marketing structure, business studies produce conflicting results. Kaynak & Hudanah (1987) and Kaynak (1982) argue that the marketing structure like all other forms of human behaviour is linked
inseparably to the environment in which it takes place, variables such as socio economic traditions, culture, population, government, suppliers, technology and level of education shape marketing practice to a notable extent. Kaynak (1982) in his empirical study concluded that the environmental factors impact a country's marketing structure through their impact on institution operation, he stated:

"The environment contains operating conditions that limit the scope of the marketing institution activities and effect their organisations structure, factors such as income level, culture attribute, consumer characteristics and the structure of the channel of distribution have a bearing on the market potential and thus the scale of marketing institution operation".

However, Douglas (1971), Dougals & Wind (1972) & Douglas & Dubois (1977) argue that the effect of the environmental factors upon the marketing system is indirect and complex in nature, and that it cannot be explained solely in terms of environmental development. Dougals notes;

"Individual firms may respond in different ways and in different degree to environmental conditions and here no consistent pattern of response emerges at the national level. Such environmental change as these just noted are in the large part beyond the control of the marketing system. Generally, the system is able only to adjust and adapt these piece of the total environment to which are the same for all establishment in a given area, it is true, however, that firms and establishment seek to exert as much as possible over the government in which they function".

In her empirical study of the impact of the environmental forces on the marketing structure, Douglas (1971) concluded that the environmental factors effect marketing systems through their impact on individual firms. However, her study does not support the development theory that the marketing structure is closely related to the environment, she states:

"Despite the comprehensive scope of the survey, there was little evidence to support the theory that the development of the marketing structure is closely parallels to that of social environment and cultural environment".
According to the management's strategic studies, it is essential to the firm's behaviour to match its organisational capabilities and its environment. The management should make a greater effort to adapt to its external environmental conditions since it is critical for the firm's behaviour in pursuing its basic objectives. However, studies that focus on the impact of the external environmental characteristics on the marketing behaviour are still few and fragmented and most of them have only been conducted at the macro level.

Goodnow & Hansz (1972) have investigated the effect of the environmental forces on overseas market strategies. Although their study is conducted at the macro level, it is supported by the "Banting-Litvak hypothesis" that the extent of investment as well as the degree of control exercised by the parent firm over the distribution channel in other countries is related to external environment and that the extent of investment and degree of control decline as the environment becomes less favourable. Another similar study was also presumed (Maclayton, et al. 1980) that a firm's decision to enter foreign marketing is largely based on environmental forces, the higher the barriers to invest in marketing in foreign market, the higher the risk the firm will encounter. In the case of the higher risk, the firm has to think deeply in analysing the environmental force. However, their study has tended to concentrate with only a univariate measure of the environment such as gross national product, where there are many environmental factors needed to be considered such as political-legal factors.

Studies that are related directly to investigating the extent of the influence of the external environmental measures upon the export behaviour and the level of exporting are few in nature and fragmented.
Therefore, much of the work in this section is derived from the contribution of international economic and management studies.

For the purpose of the present study, the external environmental forces are suggested under two interrelated constructs: (1) Economic and commercial infrastructural environment, and the (2) Political - legal environment.

2.3.2.1 Economic and Commercial Infrastructural Environment

It is believed that an assessment of economic environmental factors is important to the firm's business success either in the domestic, or foreign market (e.g., Keegan 1984). In other words, the economic environment of a country tends to have a great impact on the firm's activities and the ways in which things are done. The main components of the market can be captured by considering variables such as those relative to the population (e.g., population growth, income distributions, consumption patterns) and its various characteristics, such as level of technological development, commercial infrastructure, physical endowment, geographical features of the environment, trade pattern, foreign involvement in the economy, etc.

In discussing the effect of domestic market conditions on the international trade, international business studies concluded that the marketer should be very sensitive to economic perspectives in the domestic market. It was put in this way;

"In appraising domestic economic development, short run foreign trade and internal economic movements can no longer be ignored even when we are looking at the world's largest and most self - sufficient economy" (McCracken 1973).

Indeed, firms react to changing domestic and international economic environment and can be expected to shift their relative emphasis in promoting domestic versus foreign trade. Kindelberger (1962) notes:
"Capacity to transfer is capacity to react to change originating at home or abroad by adapting the structure of foreign trade to the new situation in an economic fashion".

Orientation towards overseas markets is somewhat related to the domestic economic environment (Cooper et al. 1970 & Rao et al. 1990). An empirical study on the subject by Rao (1977) indicated that during slack conditions in the United States, foreign markets provide a realistic alternative for maintaining business. Based on his survey of 104 firms in Arkansas, Rao concluded:

"While there are wide variations as to the nature and extent of the impact of the recent economic recession, more than one third of the reporting firms were adversely effected. During the recession world period, about 40 % of respondents have intensified their overall export marketing efforts. Some of the export facilitating developments such as the U.S dollar devaluation, exporters and tax incentives expand their exports. During the reactionary period more than one third of the reporting firms have intensified their export marketing efforts by arranging deliveries according to the needs of their overseas customers, appointing more overseas agents and visiting overseas markets more frequently. More than one third of the respondents have reported that their export sales growth has helped them to cushion the slack in domestic sales resulting from the recessionary conditions."

An article in Business International (1974) notes a typical response of firms as they deal with production shortages. These responses include: (1) Allocation of production to the maintenance of domestic markets at the expense of more profitable exports, (2) Simultaneous cultivation of domestic markets and long established foreign accounts, and (3) Forsaking domestic customers in favour of more profitable export business.

The firm's export behaviour is also very likely to be determined by the many commercial factors in its local environment. The main ones are: local tax structure, transportation facilities, availability and access to finance, rate of employment, interest rate, country's trade position, level of economic development, exchange rate, inflation, the availability of resources (raw material) and intensity of competition.
The technological development taking place within the environment in which the firm operates is also expected to have an effect on the firm's export behaviour and its level of exporting. According to Hirsch (1971) know how is not created within the firm, it may be purchased, the level to which their purchase relies upon the level of technological development and adaptation taking place within the environment in which the firm operates. This adaptation of technology will influence the methods of production used, works techniques and skills of the labour force through training and education courses. A study by Daniels & Robles (1982, 1985) indicates that there is a significant relationship between the adoption (choice) of technology and export commitment of manufacturing firms.

The physical characteristics of individual markets in terms of distance, topography, climate and natural resources is expected to have influenced the international marketing decision to enter a market and the possible adjustment needed in the marketing mix. In this context distance relates to the physical separation of the marketer from potential customers. In many cases physical distance is accompanied by psychological distance which manifests itself in cultural differences as stated by Johanson and Vahlne (1977) and Dichtl et al. (1984).

According to Czinkota & Ronkainen (1988) the availability and quality of an infrastructure is of critical importance to the expansion of export and in evaluating marketing operations abroad. Every international marketer will depend heavily on the services provided by the local market for transportation, communication and energy, as well as an organisation participating in the facilitating functions of marketing communication distribution, information and financing. Transportation network by land, waterway or air are
essential for physical distribution. Communication is as important as transportation, the ability of a firm to communicate with entities both outside and within the market can be estimated by using indicators of the communication infrastructure, telephone, broadcast media and print media in use, data on the availability of commercial infrastructure, bank, advertising agencies, distributors to assess new markets. It was indicated by Cateora & Hess (1987) that;

"The quality of infrastructure directly effects a country's economic growth potential and the ability of an enterprise to engage effectively in business".

Therefore, commercial infrastructure is very likely to effect the level of exporting. However, inadequate commercial infrastructure is expected to, or very likely to have a negative influence on the firms' export involvement, particularly in developing countries where firms are unable to, or not in the position to obtain, or provide export facilities without government assistance.

According to Cateora & Hess (1987); "the less developed a country is, the less adequate the infrastructure is for conducting business". Kaynak & Samli (1984) also stated:

"In developing countries, the marketing infrastructure is under developed. Commercial media, financial facilities, research agencies, postal and other communications and physical distributions are generally under represented, creating constraints on the organisation".

2.3.2.2 Political - Legal Environment

In fact, a country's political system is a mirror of its economy structure and situation. Therefore, it is difficult if not impossible to separate the political system from the whole economic environment. The political - legal environment of international marketing includes any national, or international factors which can effect its operations
or its decision - making (Terpstra 1988). The elements of this environment are the:

- Role of the government in the economy
- Economic and political ideology
- Interrelated relationship
- Business government relative in general

The political forces tend to have a great impact on many aspects of business and economic behaviour. It tends to determine the degree of freedom that organisations are obliged to follow in pursuing their business's goals. In other words, the government's role can effect the firm's organisational behaviour (structure, direction, resource allocation, etc.) through a number of processes of legislation and regulations that firms are obliged to conduct.

Much of the literature in economic and international business has been discussed the forms and the degree of the effect of government intervention in economic and business operations. However, it was reported by several studies that the extent of the government's role differs among countries and even in the same country, but it appears to be larger in developing countries than in developed countries as noted by Poynter (1982):

"...the extent of the government's role varies from country to country, even in the same country, from industry to industry, while government intervention in the form of financial support and trade protection is sought by firms, most government intervention is costly. Corporate reaction to undesirable forms of government intervention has varied. Some firms aggressively attempt to control such behaviour directly while others treat intervention as a fact of life over which they have little, if any, control".

The manner of government intervention in export marketing takes two forms, while it acts as barrier to export marketing activities through a number of restrictions such as tariffs, quotas, legislation and procedure requirements such as licence requirement, it acts as a promoter through its action on the areas of subsidies, tax incentives,
provision of information other types of assistance, and free trade zones. In this respect Kaynak (1982) notes:

"Various levels of both direct and indirect government intervention in the distribution system of LDS have been recorded. Direct intervention includes activity such as publicising controlled prices, the operation of government owned retail outlets. Indirect intervention includes economic legislation, licensing dealers and the support and encouragement of non-profit organisations, the consumer cooperations"

"There are many rules and regulations that hinder efficient marketing in less developed countries. For example distribution in most LDS are burdened by outdated laws that restrict or limit the assortment of goals they can handle" (Kaynak 1982).

In his study of export marketing practices of the UK organisations in developing countries Michell (1979) confirmed the relative significance of the government political factor. The three most popular types of export constraints mentioned by respondents were: political instability, internal currency restrictions and difficult legal problems. Rojemta (1986) reported a similar result in his study of constraints that were encountered by American industrial firms in Thailand, he found that government restrictions and inadequate infrastructure were among the most important constraints rated by the respondents.

Terpstra (1988) notes that the political instability of the country and rapid change create a climate of uncertainties unfavourable for business. Political stability has been found to be the most crucial variable that companies weigh when considering going overseas (Schollhammer & Nigh 1984). Czinkota & Ronkainen (1990) views that the effect of politics on international marketing is determined by both the bilateral political relationship between home and host countries and the multinational agreement government relationship among groupings of countries.
The policies and promotional activities and programmes developed by government organisations and agencies to promote exporting are increasingly important factors in the international environment. However, studies in developed countries indicated that promotional and financial assistances provided by governments are viewed as insignificant to increase the firm's involvement in export operations (Kolhede 1984 and Wiedersheim-Paul et al. (1978). The export incentive was found to be only important to initiate the export process of small firms (Rabino 1980). It can be argued that export firms in developing countries very likely need to rely on the government's assistance in order to enhance their ability and to increase their export involvement in increasingly competitive international markets.
2.3.3 Export Modelling Studies

Export models are concerned with the identification of the relevant variables, the specification of the interdependencies among these variables at a given time, and the specification of the dynamics between the variables (Bilkey 1978). A brief summary of each model, including advantages and limitations, is given as below:

(1) Etgar & McConnell's Model

Etgar & McConnell (1976) formulated a static causal and effect theoretical model of export behaviour in the form of an equation:

\[ A = Q(E, I, C) \]

Where:

\[ A \] represents a vector of export related behavioural decision

\[ E \] represents a group of internal and external environmental factors (location of markets, technological, institutional factors, behavioural forces, economic forces, and legal political influences)

\[ I \] represents a group of information stimuli (from mass media, personal contacts, and previous experiences)

\[ C \] represents the information processing complex (including technological choice constructs.

However, the relationship among variables on the right side of the equation either within groups or between groups were neither indicated nor tested empirically. According to Bilkey (1978) their model yield inference is that it harmonizes with the observable behaviour.

(2) Wiedersheim-Paul & Welch's Model

They proposed a conceptual framework focusing on a firm's pre-export activities before commencement of export. The model basically suggests that different types of "Triggering cues" in relation to
decisions about pre-export behaviour — attention evoking — factors are exposed to the decision maker.

The type and amount of alternatives evoked are dependent not only on the individual decision-maker but also on the environment in which he is acting, i.e., the environment of the firm and the firm itself. Four factors are thought likely to have an impact on the pre-export behaviour of the firm:

1. Goals of the firm and their degree of realisation
2. Type of product line
3. History of the firm
4. The degree of extra regional expansion.

Figure (2.1)

WIEDERSHEIM & WELCH'S MODEL

Factors Effecting the Pre-Export Activities of the Firms*

Specifically, the attention evoking factors - those influences that cause the firm to consider the adoption of export as a possibility, are divided into internal and external stimuli. Pre - export activities were studies from the perspective of the information form the firm surveyed, these activities being described on the basis of:

1. Willingness to start exporting
2. Information transaction activity
3. Information collection activities

Among the dimensions, firms were classified into three groups: active, passive and domestic. Empirical testing of various aspects of the models operations were conducted in Australian small manufacturing firms. However, the data was generated from a small sample size, which is insufficient to generalize the findings. Furthermore, it should be noted that the model still needs to be tested empirically and the specific types of functional relationships among the variables in the model have also not been identified. The authors, as they recognize, this model represents a framework for the developing for more partial models of qualitative and quantitative types which are open to operationalization.

With regard to the present study, this model seems to be one of the most comprehensive models, since it includes all the concerned factors that could possibly effect the firm's export behaviour. However, these factors were advanced in broader categories.

(3) Reid's Model

Reid (1980) developed a theoretical framework to explain the firm's decision to export. His model focused on the role of individual factors (characteristics). Export behaviour related variables were classified into three groups: (1) Contextual factors such as the industry environment and the foreign market environment.
Figure (2.2)
REID'S EXPORT BEHAVIOURAL MODEL

The Role of the Individual in Export Decision Making

Contextual Factors

- Industry Environment
- Company Environment
- Foreign Market Environment

Individual Mediating Factors

- Past Experience
- Objective Knowledge
- Experimental Knowledge

- Export Orientation
- Export Motivations
- Export Expectation

→ Export Intention

(2) Individual mediating factors which consisted of two levels of variables: the first group consisted of the decision-maker's past experiences, his objective knowledge which can be taught and more easily acquired and experimental knowledge that could be gained only from experiences which made it possible to perceive concert opportunities; the second group consisted of the decision-maker's export orientation, his motivation to export expectation, and (3) The decision-maker's intention to export which served as dependent variables. The general relationship amongst these groups of variables are shown in Figure (2.2).

According to the model, the decision-maker's characteristics may act on several levels. First the decision-maker is exposed to all the information stimuli from the firm's and the foreign market environment. The information is processed and influenced by his experience and knowledge, in turn, this information processing effects the decision-maker's export organisation, motivation to export, and his expectation of export effects. These effected mediating variables, finally influence the decision-maker's intention to initiate exporting. However, the specific type of relationship among the variables in the model are not indicated and the model is still not empirically tested.

(4) Bilkey & Tesar's Model

Bilkey & Tesar (1977) formulated a theoretical model by using Roger's theory of Diffusion of Innovations (Rogers 1961). The model involves the following export stages:

1. The firm is unwilling to export; it would not even fill an unsolicited export order, because of apathy, dislike of foreign activities, busy doing things . . . , etc.
2. The firm fills unsolicited export order but does not explore the feasibility of export.
3. The firm explores the feasibility of exporting (this stage may be omitted by the receipt of unsolicited export orders).

4. The firm exports experimentally to one or a few markets.

5. The firm is an experienced exporter to those markets.

6. The firm explores possibilities of exporting to additional market and so on.

The questionnaire was mailed to a sample of (423) small and medium sized firm in Wisconsin, and the analytical methodology employed involved treating each stage of the export development process as the dependent variables in a multiple regression equation - Coefficients differing at each stage to allow for experience gained in the preceding stage:

\[ A = a + bE - cI + dF = eM \]

Where:

A = The firm's export activity for the stage in question.
E = Management's expectation regarding the benefit of exporting after it has been developed.
I = The inhibitors (mainly serious infrastructure and institutional obstacles) that management perceive to initiating exporting.
F = The facilitators (unsolicited order, information, subsidies, infrastructure and institution aid, etc.) management perceive to initiate exporting.
M = The quality and dynamism of the firm's management plus the firm's organisational characteristics that effect exporting.

The specific findings in this regard are as follows; the major correlation of export movement from stage I to stages 2 and 3, were whether management planned for exporting (pertains to factor M) and management's impression of the firm's differential advantage (factor F), no relationship was found with the management's expectation as to what exporting would contribute to the firm's profit's, growth etc, (factor E), nor with management's perception of inhibitors to exporting, (factor I). Movement from an earlier stage to stage 4 (experimental exporting) correlate directly with whether the firm received an unsolicited initial export order (factor F), and directly with the quality of the firm's management; and to a small extent,
directly with the firm's size, (factor M). Again, there was no relationship with the management's expectation as to what exporting would contribute to its firm, nor with management's perception of export inhibitors. Movement from stage 4 to stage 5 as well as the extent to what stage 5 was pursued (measured by the percentage of the firm's total sales derived from exporting), correlated directly with the management's perception of gains from exporting, inversely with the number of perceived inhibitors to exporting, and inversely with the quality of the firm's management.

The basic conclusion that Bilkey & Tesar derived from their study was summarized as follows: (1) the export development process of the firms tended to proceed in stages, (2) considerations that influence a firm's progression from one stage to another tend to differ by stage, (3) within the size range of the firms studied, size was relatively unimportant when account was taken of the quality and dynamism.

(5) Czinkota and Johnston's Model

In discussing Bilkey and Tesar's model, Czinkota & Johnston (1981) note: "Although this study was successful in differentiating among firms, the criteria according to which firms are classified were quite general in nature". Based upon Bilkey & Tesar's Model, they further developed the process of the firm to encompass eight stages instead of six stages as discussed by Bilkey and Tesar, which are as follows:

Stage (1): The completely uninterested firms (the unwilling firms)
Stage (2): The partially interested firms
Stage (3): The exploring firms
Stage (4): The experimental exporters
Stage (5): The disappointed exporters
Stage (6): The temporary exporters
Stage (7): The experienced small exporters
Stage (8): The experienced large exporters

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Questionnaires from 237 U.S. manufacturing firms (three industries) were segmented according to the above stages, and analysis of variances (ANOVA) were employed to compare the mean group score for the group configuration of such segmentation approach. The findings show that change in exporting attitudes, motivation, and perceived exporting obstacles are associated with the growing length of exporting experiences, although, the defined categories did not statistically identify the precise pattern of the development process. Moreover, the criteria which was used to classify the firms into these above stages were composed in a more rigorous fashion by using a quantitative cut-off value for relative and absolute export sales volume, length of export experience, type of countries exported to, and manpower committed to exporting. In addition, the stages were slightly altered to include only six (all the firms except the firms in stage 5 and stage 6).

Specifically, although Bilkey and Tesar's model and Czinkota & Johnston's model could be used as a basis for a development promotion programme, they do not provide evidence as to whether the firms in each stage will react similarly to a certain stimuli*; whether the factors that determine firms in each stage are similar among the firms surveyed, i.e., are there any specific relationships among the variables which are discussed, and whether the firm has to pass through each stage in order to be fully involved in export marketing activity. Furthermore, both models assume that exporting begins by accident and then commitment to exporting develops later. This situation is fairly common in developed countries where these two models were tested. However, in developing countries such as Jordan,* Recent studies in exporting suggest that firms seldom go through a concrete, stepwise process of export development or internationalisation (e.g., Sullivan & Bauerchmidt 1990).
it can be argued that the government's export assistances (financial and non-financial incentives) are important for the exporters of manufactured products to develop their commitment to export first and then develop their export sales. In other words, the process of export development may begin either with export commitment, or with export sales.

(6) Cavusgil & Nevin's Model

Cavusgil and Nevin (1981) have developed an empirically tested static path model of export marketing behaviour, utilizing (473) manufacturing firms in Wisconsin as research subjects. As can be seen in Figure (2.3), this model consists of internal determinants of the firm's export marketing behaviour. These determinants are further divided into background and intervening independent variables.

Cavusgil & Nevin distinguished between background variables which are divided into two groups of differential firm advantage and the strength of managerial aspiration of business goals. Intervening variables which represented the present situation include two groups: management's expectation about the firm's commitment to export marketing. Specifically, differential advantage and managerial aspiration are thought to promote management's expectation regarding the effect of exporting on the firm's goals and indicators of the firm's resources allocation. Intervening variables hold the distinction of being more subject to change in the short term than background variables, i.e., the former are more dynamic as far as determining export behaviour. Through multiple classification analysis (MCA), they reduced 19 internal determinants to 10 independent variables. A summary discussion of these follows. The differential firm advantage (one of the Background group) include: Firm size (as
measured by sales volume), the technological intensiveness of the firm's industry, the firm's possession of a unique product and the firm's proximity to foreign markets. As discussed previously, although these variables are not sufficient by themselves to initiate export marketing, these unique advantages are attention evokers (Wiedersheim-Paul et al. 1978), i.e., "they are important in preparing the firm and in providing initial motivation for management".

The other group of "Background determinants" i.e., the strength of managerial aspiration for business goals, include the independent variables of managerial aspiration for growth and managerial aspiration for security markets. According to this analysis a positive relationship exists between export marketing behaviour and the decision maker preferences for these business goals.

One of the two groups of intervening determinants, i.e. expectation of management regarding the impact of exporting on firms business goals consists of the independent variable of management's expectation about the effect of exporting on the firm's growth. The second group of intervening determinants relate to the management's level of commitment to export marketing and consists of whether or not management is involved in market planning; systematically explores the feasibility of exporting and developed a policy toward exports.

According to Cavusgil & Nevin, the firm's willingness to allocate adequate resource to exporting as measured by the above variable is critical in determining the extent of a firm's export marketing behaviour.

Based on these findings, these analysts have come up with a conclusion relating to the means by which (USA) business export marketing activity may be stimulated. They state:

"The result seems to support the contention that the reluctance of firms to export may be largely attributable to top management's lack of determination to exports and, the firm's top management should be able to stress the importance of growth as an organisational objective as well as the potential positive impact of exporting on growth and then committing resources to engage in market planning systematically exploring the possibilities of exporting and developing an export policy.

In the discussing of Cavusgil & Nevin's model, it was noticed that the number of internal determinants of exporting behaviour are very limited, i.e., only a few numbers of the firm's internal characteristics have been tested. Also, the relationships among variables called "background variables" have not been identified.

As far as their major hypothesis is justified and explained, export marketing behaviour of the manufacturing firms can be explained largely by the firm's internal characteristics. Our argument is in opposition to their conclusion that the export marketing behaviour can
be better explained through the interaction of the firm's internal characteristics and forces that exist on its external environment rather than based on either of them individually.

(7) Kolhede's Export Orientation Model

Kolhede (1984) developed a model by using Roethlisberger's theory, the major promise of her study is based on the fact that the causal elements of attitudes embodied in "Roethlisbergers's theory (1941)" are; underlying determinants of small business, employees response to change in the workplace environment can be modified for use as tools for understanding both the export orientation of the small business manager as the resulting response of small companies, to the change involved in the notion of their expansion export involvement.

The particular change examined is the notation of export undertaking by small firms. The manager's response to such a proposed change based on his export orientation. A positive export orientation (+) will cause the manager to decide to increase his firm's export marketing, a negative (-) export orientation will result in the firm's resistance to export expansion.

The questionnaire was mailed to a sample of (403) small manufacturing US firms. Analysis of variances, factor analysis and multiple regression analysis techniques were employed to compare the export orientation in both types of small firms, exporting and non-exporting.

The result indicated that by using a multiple regression coefficient of determination (R square) which was about 44% of the variation in the dependent variables and which was explained by the seven factors discussed by the author, i.e., the factors which were assumed to determine the small firm's export orientation (Figure 2.4)
Figure (2.4)*

KOLHEDE'S EXPORT ORIENTATION MODEL

PROPOSED CHANGE  MANAGER'S OR DECISION - MAKER'S
RESPONSE  INCREASE/ NO INCREASE IN COMPANY
Expand Company Export Expand Company Export Export Marketing.
Export Export Involvement Export Involvement

MANAGER'S EXPORT ORIENTATION (+/-)

ATTITUDES TOWARD  PERSONAL'S BACKGROUND  SOCIAL
ATTITUDINAL  ATTITUDES TOWARD  VARIABLES  AT WORK
ENVIRONMENTAL FORCES

Assessment (+/-):  Assessment (+/-):  Assessment (+/-):  Assessment (+/-):  Assessment (+/-):

Inducement for company Export orientation (+/-) of fellow
exporting Company members
Benefit to the firm  Foreign travel  Export orientation
of export marketing  experience  (+/-) of fellow
involvement Company members
Company resources  Foreign language  Personal enjoyment of
essential for exporting  proficiency  challenge of exporting
Company's competitive  Formal education  Business exporting
advantage for exporting  Work experience  Importance of US
Willingness to modify  Group affiliations  Small business exporting
management marketing mix  outside the company  Assessment of social
for exporting involvement  Company
Obstacles to company's  personal import of US small
Export involvement  Small business exporting
Efficiency of Federal  Business exporting
government export programme  Assessment of social

* Note: +/- denotes positive / negative
Although the results of her study were found to be in conflict with many previous works as discussed through the literature, the study can be considered as an additional new approach to export marketing behaviour. Furthermore, her study was mainly based on examining the attitudes of the decision-maker rather than examining the factual data which was behind each firm when it becomes involved in exporting, either small or large firm, or both.

(8) Aaby & Slater's Strategic Export Model

Aaby & Slater (1989) developed a strategic export framework based on a review of empirical literature between 1978 to 1988. They argue that current export knowledge should be synthesised at two broad level: (1) the external environmental level, and (2) the firm business strategy and functional level. The environmental level includes macro-economic, social, political and cultural aspects which influence export management, behaviour and performance. The business strategy level includes assessment of key business policies and capabilities within the firm's control.

This framework has only focused on a review of literature that related to managerially controllable factors. They include; firm characteristics, firm competencies, and firm strategy (see figure 2.5). The relationship among these groups of variables has been discussed through an extensive review of studies during the 1978-88 period.

According to Aaby & Slater "although there is no clear cut formula for developing a successful programme, there appears to be sufficient evidence to draw a number of general conclusions: First company size by itself is not an important factor unless it is associated with other aspects such as financial strength or variables related to
Aaby & Slater's A General Model for Assessing Export Performance and Variables*

EXTERNAL INFLUENCE

- Technology
- Export/Market knowledge
- Planing
- Export policy
- Management control
- Quality
- Communication

Performance

- Propensity to export
- Export sales
- Export problems
- Exporters vs. non-exporters
- Level of export
- Perceptions toward export
- Export growth intensity
- Barriers to export

Strategy

- Market selection
- Use of intermediaries
- Product mix
- Product development
- Promotion
- Pricing
- Staffing

Firm characteristics

- Firm size
- Management commitment
- Management perceptions
  - financial incentives
  - competition
  - market potential
  - distribution, delivery, and service
  - government incentives
  - risk
  - profit

economic of scale. Second, in companies where management is firmly committed to export, export performance tends to be higher. Third, firms that have better management systems and plan export activities well are more successful than those that did. Fourth, export experience is important, and firms that have experience are likely to do better than those that are just starting".

(9) Yang, Y.S., R.P. Leone & D.L. Alden's Model
Yang et al. (1992) have developed an empirically tested model. It suggests that the manager's export intention is an indicator of the firm's future export behaviour and is related to a firm's market expansion ability and the manager's perception of external (e.g., general environmental) and internal (e.g., firm-specific) barriers to exporting (see figure 2.6).

Following Fishbein ans Ajzen (1975), they proposed the model as:

$$ EB - EI = (MEA, BE) $$

Where:
- $EB$ = The actual export behaviour
- $EI$ = The export intention
- $MEA$ = Market expansion ability of the firm
- $BE$ = Barriers to exporting

The tilde between $EB$ and $EI$ suggests a time interval between export intention and actual export behaviour. The relationship among export intention, market expansion ability and perceived barriers to exporting were examined by using 345 non-exporters of manufacturers firms in Texas (U.S.A).

The specific findings in this regard are as follows: (1) The export intention of non-exporters is positively related to market expansion ability and perceived export barriers. (2) The probability of the firm's future export activity is largely related to the market
expansion ability variables than those for the perceived barriers to exporting. This suggests that firm's prior domestic expansion experience and resources may be more important to identify its potential export activity. However, no significant relationship was found between market expansion ability and perceived barriers to exporting.

Although this model was limited to the experience of one geographical area in the U.S.A (i.e., Texas), it might be useful in the prediction and identification of the characteristics of the potential exporters in other developed countries.

Figure (2.6)

Yang, Leone and Alden's model*

2.4 The Common Characteristics of Export Behaviour Studies

To the best knowledge of the researcher, previous studies in export marketing behaviour, have in common the following characteristics:

- Only some of these studies have developed a conceptual framework.
- In many studies, research has been confined to only some aspects, therefore, other important aspects have been given little attention in the specific analysis making the findings less relevant, for example, the effect of some external environmental measures such as those related to the government export procedures and regulations.
- The majority of these studies are confined to the experience of developed countries, such as the U.K, USA, Germany, etc.
- Empirical evidence produced mixed findings regarding many aspects as discussed through the literature, for example, the impact of the firm's parameters (i.e., size, age, etc.) on the firm's export behaviour and its level of exporting.
- Some of these investigations were conducted in isolation, without benefit from the experience of findings from other studies.
- In many of these studies, practical implications of research findings are only stated in general terms.
- Little attempts might be made to report the reliability of the scale of measurement for the data collection.

Therefore, the aim of this study is to overcome the above limitations of the previous research and to improve the understanding of export behaviour at the firm level.
In this chapter, a review of international trade theories, firm and organisational behavioural theories were presented firstly as a basis theoretical background for the purposes of the study. A discussion of empirical studies in export marketing behaviour then followed in an attempt to identify the variables which are most likely to have an impact on the firm's export behaviour and its level of exporting.

The traditional international trade theories were introduced, as it provides a basic explanation for the global factors that determine the pattern of trade among countries. However, the international trade theories explanation which is based on the doctrine of competitive advantages was found to be insufficient, or failed to provide an answer for why cost or price differs among trade partners, because cost or price parameters can only be determined at the micro level, i.e., the individual firm's level.

Product life cycle concept, which has been recently developed, holds that the moves of a firm or country towards international marketing can be explained in terms of trade cycle. However, the product life concept has been attacked on several accounts. While it provides a sufficient explanation for certain types of products particularly those highly technological products which are largely innovated and produced in advanced countries, it might be insufficient for traditional products which are mass produced in developing countries. However, both international trade theories are useful for this study, since they provide some theoretical support for some variables that could be examined at the firm's level.

Firms and organisational behavioural theories were presented and discussed simultaneously as theoretical perspectives for the purpose
of the study. The firm's behaviour is viewed as a result of an interaction between its internal operations and the factors that exist in its external environment. Therefore, it is possible to analyse the process of decision making within individual firms on the basis of the factors influencing the organisation. Administration theory which is one of the branches of the organisational behavioural theories is also discussed, since it is of major concern with the process of decision making within the organisation with emphasis on the role of decision-makers.

Export marketing behaviour literature which relates to the supply side of the international trade theory are comprehensively reviewed and presented under three sections: (1) Studies relating to the firm's internal environment, (2) Studies relating to the firm's external environment, and (3) Export marketing behaviour modelling studies.

The studies that are concerned with the firm's internal export marketing are further presented under five headings: (1) The exporting initiation (2) Firm export orientation (3) Management characteristics and export marketing (4) Export marketing mix decisions (5) Firm and decision-maker's individual characteristics.

The studies that are related to the firm's external environment, however, are few in nature and fragmented, therefore, to a greater extent, much of the work in this section is drawn from the contribution of the economics and organisational theories. For the purposes of this study, the constructs of the firm's external environment are presented and discussed under the following headings: (1) Economic and commercial infrastructural environment, and (2) The political-legal environment.

With regard to export marketing behaviour modelling studies, nine export modelling studies were presented and reviewed. However, only

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five of them were tested empirically. The review of export models suggest that forces within the firm and its management may be centred around export behaviour of the nine models, all included some characteristics of the firm, the characteristics of the management, and important factors included aspects of the environment, whether local or foreign environment. The conceptual model which will be presented in Chapter Five, borrows some of the concepts and ideas of these export models, in addition to the ideas that derived from the organisational behaviour and international trade theories.
CHAPTER THREE

THE PRELIMINARY IN DEPTH INTERVIEWS AND SOME INFORMATION ABOUT EXPORT POLICIES, PROCEDURES AND EXPORT PROMOTION INSTITUTIONS IN JORDAN

Introduction

3.1 Objectives of the Preliminary Interviews

3.2 Structure of the Preliminary Interviews

3.3 Planning for the Preliminary Interviews

3.4 Data Gathered Through the Preliminary Interviews

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3.4.3 The Results of the Initial Interviews

Summary
CHAPTER THREE

THE PRELIMINARY IN DEPTH INTERVIEWS AND SOME INFORMATION ABOUT EXPORT POLICIES, PROCEDURES AND EXPORT PROMOTION INSTITUTIONS IN JORDAN

Introduction

As indicated in the previous Chapter, most of the aspects of the firm's external environmental dimension have been neglected, or have received little attention in export behaviour studies.

Therefore, the researcher conducted several interviews with relevant persons in both private and public institutions, as well as with a number of initial respondents of manufacturing firms in order to develop some measures of the firm's external environment, in particular, elements of the political - legal environment, and to formulate specific hypotheses that were relevant to the export situation in Jordan.

In this Chapter, the main purpose of the preliminary interview, its structure and results are presented. Furthermore, some background information about the export policies, regulations, and procedures is also given.
3.1 Objectives of the Preliminary Interviews

The objectives of the preliminary interviews can be divided into two types: (1) general objectives, and (2) specific objectives.

The general objectives of the preliminary interviews are: (1) to achieve more insight into the study problem under investigation, (2) to formulate specific hypotheses in respect of the objectives of the study, (3) to explore new areas which are more relevant to the export marketing behaviour of the manufacturing firms in Jordan, (4) to be able to prepare and design an appropriate questionnaire that will handle the export marketing behaviour in Jordan.

The specific objectives of the preliminary interviews are: (1) to acquire more information about the external environmental characteristics of the manufacturing firms in Jordan; in particular, the export policies, regulations, procedures, the types of export assistances and services that are offered by the public and private institutions, and the major obstacles that are encountered by manufacturing firms from the point of view of the authorities, (2) to shed light onto the export situation in Jordan from the point of view of the decision-makers of manufacturing firms with regard to the above issues.

3.2 Structure of the Preliminary Interviews

The preliminary interview consisted of free discussion with the top executives of five manufacturing firms, as well as with the authorities of both public and private institutions that undertake various export related issues in Jordan. The general form of these interviews were open-structured interviews. No statistical analysis was attempted at this stage of the present study.
3.3 Planning for the Preliminary Interviews

The in-depth interviews were conducted in two stages. At the first stage, the authorities in both public and private institutions were contacted by telephone and their cooperation was sought. The prior arrangements for the meeting were well scheduled in terms of the name of the person to be interviewed, and the time and place of the meeting.

At the second stage, the top executives of six manufacturing firms were telephoned and their cooperation was sought. Of the six, five agreed to a meeting. The interviews were held separately at the organisation's premises. The main objectives of each stage are given in Table (3.1).

3.4 Data Gathered Through the Preliminary Interviews

The data collected through the preliminary interviews are presented under the following headings:

(1) The role and functions of the export promotion institutions  
(2) The government's export procedures and regulations  
(3) The results of the initial interviews

3.4.1 The Role and Functions of the Export Promotion Institutions in Jordan

There are several bodies who undertake the various export related tasks in Jordan. Public bodies include the Ministry of Industry and Trade, the Ministry of Finance and Customs, the Central Bank of Jordan and others. The private institutions consist of the Chamber of Industry, the Commercial Banks, and The Jordan Trade Association. The role and the function of each institution in respect of exporting is given in detail according to the type of institution, i.e., public or private, as follows:
## Table (3.1)
The Objectives of Each Stage of the Preliminary Interview

<table>
<thead>
<tr>
<th>Stage of Interview</th>
<th>Objectives</th>
</tr>
</thead>
</table>
| **Stage (1):** Several authorities in five organisations were interviewed.  
1. The Ministry of Industry and Trade  
2. The Ministry of Finance and Customs  
3. The Central Bank of Jordan  
4. The Chamber of Industry  
5. The Trade Corporation Centre | 1. To get more specific information about the role of each organisation in respect of exporting.  
2. To acquire more information about the types of export policies and assistances that are offered by each organisation.  
3. To identify the main aspect of the government export procedures and regulations.  
4. To get the point of view of each organisation in respect of the export situation in Jordan, export barriers, and any suggestions to improve the export level. |
| **Stage (2):** Conduct free discussion with five executives of manufacturing firms. | 1. To acquire their point of view in respect of the export services and assistances that are offered by each organisation.  
2. To find out the major hindrances that might be encountered by exporters & potential exporters.  
3. To obtain their point of view in respect of the government's export policies and regulations. |
3.4.1.1 Public Sector Institutions

(1) The Ministry of Industry and Trade

The Ministry consists of several departments. Of these, three are tied to export activities. These departments are: the Commercial department, Standards and Specifications department, and Economic Co-operation and Export Promotion department.

The main functions of the Commercial department in respect of export are: (1) issuing export licenses, and (2) making sure that the export licence requirement is fulfilled by the relevant person. The export regulations and export procedures are presented in section 3.4.2 of this Chapter.

Export products need to be checked and approved by the Standards and Specifications department, in particular, those products which are exported to countries where the government holds trade agreements with. The main function of the Standards and Specifications department is to make sure that: (1) the export product is produced according to the trade agreement conditions (2) the export product meets the safety and specification standards, and (3) issuing a Quality Certificate.

The role of the Economic Co-operation and Export Promotion Department can be summarized as follows: (1) preparing commercial and trade agreements (2) carrying out studies to improve and amend the agreement, (3) conducting research and studies in relation to the activities of the Arab Economic Unity and the Arab Economic and Social Councils, (4) preparing studies concerning exhibitions and fairs, marketing Jordanian products abroad, and supervising Jordanian commercial attaches, (5) participating in exhibitions and international trade fairs, and (6) preparing a list of potential Jordanian export commodities, containing information, and names and addresses of Jordanian manufacturers.
According to the export regulations, the manufacturer has to get approval of this department. The reason for this procedure is to ascertain whether the exporter is qualified to be exempted from export license fees. The exporter can be exempted from the fees if he is exporting within the trade agreement, otherwise, he has to pay a certain amount of money (1).

(2) Jordan Commercial Trade Centres Corporation

The Trade Centres Corporation was established in 1973 by decreed Law No. 21 of Year (1972), with the objectives of establishing Trade Centres in the Arab countries according to the articles of agreement and protocols ratified between the government of Jordan and other Arab nations, in order to promote and encourage market and export Jordanian agricultural and industrial products to concerned partner countries.

The functions and duties of the Trade Centres Corporation with regard to export include the following: (1) to act as a commercial agent or representative for Jordanian firms in the areas of industry, services and trade, and (2) to encourage the marketing of Jordanian products through advertising activities, trade propaganda, participation in international fairs and organizing bilateral exhibitions.

Currently, the Corporation has only got three trade centres in operation. One in Iraq and the others in Egypt and Sudan.

(3) The Ministry of Finance and Customs

The Ministry of Finance and Customs administers the various trade tariffs, taxes and custom procedures in Jordan. The Ministry also approves the Certificate of Origin for the exported products.

The tariff system in Jordan shows tremendous import protection and plays a significant part in the contributions to local government revenue. For exports, however, there are no export taxes as such, nevertheless, all materials (if they are not available in the domestic market) imported by manufacturers for the purpose of exporting are exempt from custom duties. There are two systems operating for the purpose of achieving this objective. First, the temporary entry scheme, under which raw materials are imported, manufactured and exported in a period of less than six months, are exempt from customs duties, and second, is the duty drawback system, under which customs duties are reimbursed to manufacturers after export takes place.

According to the Jordanian Custom and Excise Law No. 1 of (1962): (1) the exported goods should be inspected by the customs and selected in accordance with custom procedures, (2) the imported goods under the Law should be exported within a six months period which must not be exceeded unless the Authority advises otherwise.

The Central Bank of Jordan

The Central Bank of Jordan's impact on the export sector is manifested most significantly in the monitoring of the following:

1. The Jordan Dinar Exchange Rate
2. The financial arrangement of Jordan's trade agreement with other countries.
3. The bilateral agreements with Iraq concerning barter trade and payments facilities.

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(2) An interview with the Head of the Temporary Entry Department, Mr. Mahmoud Alatwi, on 30 July 1990.

4. The commercial bank loans rediscount facility to exporters.

5. The interest rate on the loans to exporters.

The financial arrangement of trade agreements include the Letters of Credit and payment orders for imports, in addition to the Letters of Credit for exports. In an effort to promote exporting the Central Bank has extended the short term re-discount and advancement facility of the Letters of Credit for export from six to nine months. Moreover, the interest rate on the advancement of the Central Bank to exporters was reduced from 6% to 5%.

(5) The Free Zones Corporation

The Free Zones Corporation was established in 1973 and came into operation in 1974. The function of the Corporation is to establish, manage and develop Free Zones, in addition to utilizing them in order to serve the national economy, promote international trade exchange, exchange transit trade and encourage export oriented industries. Currently, there are three trade zones corporations in operation. One in Agaba, and the others in Zarka and Queen Alia International Airport.

The incentives offered to industrial and commercial projects established in the Free Zones Corporations includes tax holidays for twelve years, exemptions from import fees, custom duties and other taxes, in addition to free transfer of capital and profits outside Jordan(4).

3.4.1.2 Private Sector Institutions

The private sector institutions, which are concerned with export in Jordan, are mainly the Chambers of Industry, the Jordan Trade Association, and the Commercial Banks.

(1) The Chambers of Industry and Trade

The Law of the Chambers of Industry and Trade was promulgated in 1949 and was amended in 1961. The functions of the Chambers of Industry and Trade include the following:

1. To collect, tabulate, and publish industrial and trade data, and to make this data available to the interested parties (i.e., the members of the Chambers).

2. To participate in the preparation of the laws and regulations that are related to the economy as a whole, and to industrial and commercial activities in particular.

3. To organize economic conventions and seminars inside and outside Jordan.

4. To act as an intermediary between manufacturers and traders in case of conflict or disagreement.(5)

In respect of exporting, the main function of the Chamber of industry, is to stamp export invoices and to issue a Certificate of Origin as a prerequisite for the export licenses. Other functions include the provision of information about potential foreign markets.

The Commercial Banks and Other Financial Institutions

The financial sector in Jordan is made up of a number of institutions providing a variety of debt and equity financing facilities. Lending facilities are provided by 18 commercial banks, 6 specialised banks, 13 finance companies, 2 investment banks, 33 insurance companies and others. Although Jordan is considered to have a reasonably developed financial sector, short term financing for export and equity participation is relatively underdeveloped. In other words, export financing is rarely available and access to bank credit facilities is highly restricted. This might be attributed to two factors: (1) the high risk associated with the financing of export activities, and (2) the inability of many manufacturing firms to meet the commercial banks' requirements.

The Jordan Trade Association

The Jordan Trade Association is a non-profit making organisation. It was established in late 1987 with the aim of expanding and promoting export products and services. The main functions of the Jordan Trade Association include:

1. The collection of information about export markets, and the potential opportunities available in these markets. In particular, the information about: (1) the suitable channel of distribution for products and services to be exported to foreign markets, (2) the international trade law and system, (3) the trade law of the countries where the products or services are to be exported to, (4) the standard specifications required for products and services in foreign markets and, (5) the prices of the alternative products in international markets.

(6) Unpublished information from the Central Bank of Jordan, A visit on 3 August 1990.
2. Undertaking directly, or with the cooperation of the local and foreign consultancy firms, with regard to the collection and exchange of important information, to promote the products of the private sectors outside Jordan.

3. Conduct economic studies for the purpose of promoting Jordanian exports. These studies and their structure should be approved by the general assembly of the Association.

4. Prepare and distribute special bulletins about the activities of the Trade Association among their members, hold specialized conferences and seminars with regard to export activities, and participate in the international trade fairs.

3.4.2 The Export Regulations and Procedures

The main purpose behind the Government export regulations and procedures is: (1) to control the trade transaction in terms of the quantity of export and the destination of goods (administrative purpose), (2) to prevent smuggling out of any necessary products, in particular those products which are subsidised by the Government for the purpose of domestic consumption, (3) to make sure that the product is exported to a country that it is allowed to be exported to (political reason), (4) to prevent the smuggling out of the value of export products (currency restriction), (5) to make sure that the exporter is qualified for exemptions of certain fees, and (6) to make sure that the exporter meets other Government requirements, such as income tax payment.

In accordance with export regulation No.66 of (1974) the exportation of all goods outside Jordan are subject to export licenses.

(7) Unpublished information from the Jordan Trade Association, A visit on 29 July 1990.
(8) Unpublished information from the Minister of Industry and Trade. A visit on 2 August 1990.
licences are obtainable from the Ministry of Industry and Trade for a revenue stamp of 2 JD to be affixed on the application for the licenses. However, these export regulations have not ruled out the possibility of increasing or imposing new fees for revenue purposes, and it may be necessary sometimes, to limit the exportation of certain items. The duration of the license is three months, and it is not transferable to another person or firm.\(^{(9)}\)

The following procedures must be followed by the manufacturer who wants to export (see Figure 3.1).

**Step (1):** An export invoice should be prepared to provide detailed information about the items that are to be exported. This invoice should be submitted to the Chamber of Industry to be certified and, accordingly, to get a Certificate of origin in quadruplicate, a copy of which is kept in the Chamber.

**Step (2):** The Certificate of Origin and an invoice should be stamped by the Ministry of Industry and Trade who will, in turn, issue an Export Permission in five copies. In this Ministry, the Export Permission should be approved by the Head of the Commercial department, and then by the Director of the Standard and Specification department who, in turn, issues a Certificate of Inspection (i.e., a Quality Certificate).

**Step (3):** Before it is to be finally approved by the Director of Economic Co-operation and Promotion department in the Ministry of Industry and Trade, it must be checked and approved by the Director of the Jordan Commercial Trade Centre. The purpose of this procedure is to ascertain whether the exporter qualifies to be exempted from the export license fees.

Source: Developed by the researcher through the preliminary interviews
* The time required to finish the above procedures is estimated between 2 to 5 days.
Step (4): The four documents (i.e., the Certificate of Origin, the Export Permission, the Certificate of Inspection, and the Export Invoice) should be stamped and approved by the Ministry of Foreign Affairs.

Step (5): The duly certified copies of all documents must be certified by the embassy of the destination country.

Step (6): According to the regulations of the Central Bank of Jordan, the exporters must also obtain a bank guarantee for securing payment by the export customers. However, this is not a requirement for Jordanian exporters selling by means of a Letter of Credit. Under the current system of the Central Bank, the exporter must post a guarantee for the amount of 10% of the export value of the goods that the exporters' customers will pay for the goods.

Step (7): Upon the submission of the said four certified documents to the Ministry of Finance and Customs, an Export Declaration is issued. The Customs keeps copies of all documents. Copies of the Export Declaration will be despatched to the Departments of Statistics and Income Tax. On the border, or at the Port of Agaba the exported merchandise is checked and inspected by the customs, in accordance with the accompanied documents.

For obtaining and certificating all the mentioned export documents, the manufacturer has to pay fees. Also, to complete all the above procedures, the manufacturer needs at least three to five days (this estimation is based on our observation). This is not only because of the large amount of paperwork, but also because of the distances between the locations of the six institutions which are concerned with the export procedures (see Figure 3.1).
3.4.3 The Results of the Initial Interviews

In the previous section, information about several bodies of institutions who undertake export related issues, export procedures and regulations was presented. In this section, comments on the above by the chief executives of five manufacturing firms are summarized under the following subheadings: (10)

(1) The Government's Export Procedures

It was noted that there are a number of procedures and regulations that Jordanian manufacturers are obliged to follow in order to export their products, otherwise, they would not be allowed to sell their products to any foreign market. These procedures were presented in the previous section, they include mainly; obtaining a Certificate of Origin, export license, and Certificate of Inspection and others. These procedures were considered to be superfluous and time-consuming. One of the interviewees indicated that "the costs of those documents (export paperwork) are not the problem, rather it is the length of time which one needs to complete those procedures, since there are a lot of signatures involved and many requirements need to be followed" (Interviewee B).

Another one said (Interviewee E) that: "it is much easier for me to import rather than to export" and then he added (Interviewee C) that "I wonder, how a new firm or those firms with little experience could be involved and encouraged in export activity if the Government intervention was so very high". Another executive confirmed (Interviewee A) that "if I want my firm to be involved in export marketing and to be competitive in

10 Taking into consideration the confidentiality of details with regard to the interviewees (i.e., names, companies, etc.) can not be enclosed in the thesis. However, the researcher posses documentation in this respect.

* Interviewees are labelled here by A, B, C, D, and E.
international marketing, the Jordanian Government should simplify all these superfluous export procedures". He explained that the delivery time is very critical in capturing opportunities in foreign markets.

(2) Financial Services and Credit Facilities

Whilst Jordan can be considered to have a reasonably well developed financial system, the conservative nature of the system tends to hinder Jordanian firms from entering international markets due to:

1. The scarcity of bank financing on competitive terms for foreign account receivables, i.e., post export finance.
2. The limited facilities for financing, required for particular inputs, i.e., pre-export finance.

Although it might be possible that exporting can be done through a confirmed Letter of Credit, which is opened in the country of the imports and confirmed by a local Jordanian bank, which in turn shifts the risk of non-payment from the exporter to his bank: "it does not always allow the exporter to offer competitive financial terms to his customers" (Interviewee D).

According to those executives, it is difficult to get access to the banking system, because they rely heavily on collateral and personal guarantees. One said "I wonder how small firms or a new firm can finance its export activity in the light of the tough banking system requirements" (Interviewee A).

Furthermore, the export credit guarantee and insurance against non-payment risks system is not available in Jordan, and so many export transactions are done through a Letter of Credit, which in turn: "hampers the firm's ability to be more secure about their export transactions with foreign customers" (Interviewee C).
The Central Bank of Jordan recently offered a special short term re-discount facility for commercial loans to exporters (under this procedure, exporters apply to commercial banks for loans at a lower interest rate "5% instead of 6%" and the Central Bank covers the difference). However, not many firms can benefit from this facility, because they are unable to meet the other conditions of the commercial bank. This may be due to the small size of manufacturing firms, as well as to the high risk associated with financing export activities (comments from Interviewees A and C).

(3) Duty Rebates Policy

Two of the executives who were interviewed (A and E) were not aware, or were unfamiliar with the Duty - Drawback system. Others who knew about it were not satisfied, because not only were the instructions of the drawback system not clear, but also the need to keep records and files about every transaction was time - consuming. Also, the refund sometimes takes time to be made.

(4) Tax Concessions

One of the executives said (Interviewee C) that "the Government of Jordan used tax exemptions as an instrument for industrial development rather than as an incentive for export oriented firms". In discussing the tax income policy, it appeared that tax incentives were provided for all firms, whether they did or did not export. In accordance with the Encouragement of Investment Law, profit of approved economics projects are exempted from income and social taxes for a period of 6 - 12 years (Jordan Five Year Plan, 1986 - 1990). However, the Encouragement of Investment Law only concentrated on tax exemptions, and ignored the other incentives such as reduction of production cost.
One executive's opinion (Interviewee B) is that: "although the government claims that profits generated from export are exempt from tax, a high percentage of export for marketing, advertising, travel and other expenses connected with export is disallowed by the income tax authorities, and more often the decision about tax exemptions is arbitrary".

According to one executive's comment: "the income tax rebate policy does not really help our industry very much because one has to wait for a whole year before one realizes how much allowance he will get and how the allowances are to be distributed on the product policy" (Interviewee D).

(5) Trade Centres and Commercial Attaches

Currently, the Government of Jordan has got only three Trade Centres in Iraq, Sudan, and Egypt and four Commercial Attaches in Syria, Iraq, Sudan, and Egypt. However, there were no Commercial Attaches or representatives for Jordan in European countries. One of the executives said "the lack of Trade Centres and Commercial Attaches in some foreign markets that we wish to export to make us unable to enter them" (Interviewee A).

(6) Provision of Information about Foreign Markets

Several bodies of both private and public institutions such as the Chamber of Industry, the Trade Centres and the Trade Association provide information about overseas markets. In discussing the importance of such information, it appeared that essential information is rarely available about the markets which some firms wish to export to, and sometimes the information available is out of date (Interviewees A, C, and D).
(7) Organising of International Trade Fairs and Exhibitions

The Jordan Trade Centres Corporation, in addition to other institutions, organise and participate in several international trade fairs and exhibitions with aims of expansion and promotion of export products of Jordanian manufacturing firms. In discussing the importance of such services, it appeared that these services are important if they are well organised in terms of time, place, and method of payment (Interviewees C & B). However, according to one executive, he said that: "I have been waiting for more than six months since the last exhibition* and I have not received any payment for the goods which were sold at that exhibition" (Interviewee D).

(8) Exchange Rate Policies

In late 1988, the Government adopted a new policy for exchange rates as a result of the economic situation. This policy, which floated the Jordanian currency against the hard currency, was intended to enhance exporting. According to the executives, the devaluation of the Jordanian dinar would encourage firms to export more, but the Central Bank regulation concerning the currency exchange rate was not flexible and could be described as restrictive.

(9) The Central Bank Guarantee Requirements

A bank guarantee is needed as proof that the exported product is received by the foreign customer, and to make sure that money is not being smuggled out of the country. However, the high cost of the bank guarantee, the short period of the guarantee, and the uncertainty involved, do not encourage firms to export (comments from Interviewees A and E).

* This exhibition was organised by the Tunisia government in 1989.
3.4.4 A Summary of the Results of the Initial Interviews

The major complaints of the five managers in respect of the government's export policies, regulations and assistances are summarised in the following points:

- The complexity of the export license requirements (the length of time and the number of the departments involved).
- The complexity of the customs clearance process.
- Inadequate tax incentives.
- Inadequate information about export markets that firms wished to export to.
- The length of the inspection process.
- Difficulty of the duty - drawback system.
- The Central Bank regulations concerning the bank guarantee condition.
- Lack of export credit guarantee.
- Lack of Commercial - Attaches in the foreign market that firms wished to export to.
- The high cost of paperwork which include: (1) export licence (2) bank guarantee (3) Certificate of Origin and (4) Certificate of Inspection.
- Lack of knowledge or awareness in respect of some government's export assistances, such as the duty rebate policies.
- Difficulty of access to the banking system.

The above complaints are included in our study's conceptual framework (see chapter 4) to represent some elements of the political - legal environment.
The purpose of this chapter is two-fold: (1) to present the main purpose of the preliminary in-depth interviews and its structures, and (2) to provide some background information about the export promotion institutions, export policies, regulations and procedures in Jordan. Also, comments on the Government's export procedures, policies and assistances by the chief executives of the five manufacturing firms, are presented.

The variables which were generated from the results of the preliminary interviews will be integrated in the conceptual framework of this study to represent some elements of the political-legal environment.

In the next chapter, the main constructs of this conceptual framework will be elaborated.
CHAPTER FOUR

THE CONCEPTUAL FRAMEWORK FOR THE INTERNAL AND EXTERNAL DETERMINANTS OF EXPORT BEHAVIOUR

Introduction

4.1 The Nature of the Conceptual Framework
4.2 How It Works
4.3 Constructs of the Conceptual Framework

4.3.1 The Firm's Export behaviour and the Level of Exporting
4.3.2 The Constructs of the Firm's Internal Environmental Dimension

4.3.2.1 Managerial Goals and Aspirations Level
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4.3.2.4 The Firm's Commitment to Export Marketing Activity
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Summary
CHAPTER FOUR
THE CONCEPTUAL FRAMEWORK FOR
THE INTERNAL AND EXTERNAL DETERMINANTS OF
EXPORT BEHAVIOUR

Introduction

The intention of this chapter is to discuss the conceptual framework for this study, the main dimensions of the conceptual framework, and the expected relationships among these dimensions.

4.1 The Nature of the Conceptual Framework

In Chapter Two, empirical studies on export behaviour, as well as the relevant theoretical literature on both international trade theories and organisational behaviour theories, were reviewed and integrated to develop a conceptual framework to guide this study.

The framework has tied together the factors (i.e., constructs) which are postulated to determine the firm's export behaviour and its level of exporting (see Figure 4.1). These factors are mainly derived from two broad dimensions, i.e., the firm's internal and external environment. According to the organisational and behavioural theories, the firm's business behaviour (e.g., Cyert and March 1963) is linked inseparably to the environment in which it takes place. Therefore, the firm's export behaviour (or the level of exporting) is thought to be a function of the interaction of the constructs of both environmental dimensions.

However, the effect of the external environmental dimension has been given little attention in previous export studies. In other words, the effect of the internal environmental dimension was the main focus of the previous studies in this field (see Chapter Two).
The study's framework developed here is based partially on the Cavusgil and Nevin's model (1981). Their model was composed of four categories of the internal determinants of the firm's export activity, they are; (1) managerial aspirations (2) management's expectations (3) the firm's comparative advantages, and (4) commitment to export marketing activity (see section 2.3.2 of Chapter Two).

Based upon the studies of organisations and international business, Cavusgil and Nevin's model is modified here to include other determinants of the export activity (i.e., the firm's external environmental measures). These determinants are proposed under two major constructs; (1) the economic and commercial infrastructure, and (2) the political - legal environment.

4.2 How It Works

The conceptual framework developed here suggests that the firm's export behaviour and its level of exporting is thought to be a function of the interaction of the constructs of the internal and external environment (see figure 4.1). For example, the extent of the firm's commitment to export marketing activity, i.e., the willingness of the management to allocate resources to export marketing functions is assumed to be a function of the level of the managers' perceptions of their firms' internal and external environmental characteristics (e.g., Wiedersheim - Paul et al. 1978, and Reid 1981). These perceptions interact with the managers' characteristics (i.e., value system, experience, goals and aspirations) which result in an overall impression of the desirability of exporting. In turn, the level of desirability of exporting (i.e., the extent of the management's expectations in respect of the impact of the achievement business) is also thought to be a function of the manager's perception of:

*This model was partially developed by Cavusgil and Nevin (1981), but it is modified by the researcher to include the influences of the firm's external environment.*
(1) the firm's export capabilities, i.e., the level of confidence of management with their firm's comparative advantages (e.g., Johnston and Czinkota 1982 and Schlegelmilch 1986), (2) the firm's domestic conditions, and (3) the foreign market conditions. In this context, the favourable perceptions of the foreign market conditions (e.g., the high expectation of better opportunities in the foreign market), coupled with the confidence of management with their firm's capabilities to export, the higher it is likely that their firm will be committed to export marketing activity, which should result in a higher level of exporting. However, if the domestic market conditions are perceived to be unfavourable at the same time (e.g., the poor marketing commercial infrastructure in the domestic market), the firm's level of exporting might be decreased to the same degree.

4.3 Constructs of the Conceptual Framework

The constructs of each dimension are presented below and a brief reference is given about the studies which were concerned with them. Furthermore, the expected relationships among these dimensions are clearly defined and discussed throughout the presentation of each construct.

4.3.1 The Firm's Export behaviour and the Level of Exporting

There are two indicators used separately to achieve the study's objectives: the level of exporting and export behaviour.

The level of exporting (i.e., the level of the firm's export involvement) is used to indicate the extent to which a firm depends upon export marketing activity for its business goals. In other words, *A full details about these studies is given in Chapter Two.*
the extent to which a firm has adopted and implemented export marketing activity as an alternative business strategy.

Export studies, such as Axinn (1985, 1988), Kolhede (1984) and Schlegelmilch (1983, 1986) indicated that there was no agreement on how best the level exporting can be measured. However, the most common measure which has been used as an indicator of the level of exporting is the export sales level as a percentage of the firm's overall sales volume. This measure is adopted here for the following reasons: (1) it is readily available, (2) it is a direct expression of the overall importance of export to the firm, (3) from a national economic planners' view-point, the total export volume, which is aggregate of the export level of industry, is of primary concern, (4) it facilitates the comparison of the findings of the present study with past research in export.

However, the use of this measure is not without disadvantages such as the time lapse between the use of this measure and the time of the data collection. In other words, the use of this measure may not be representative of the level of exporting. Nevertheless, the researcher believes that time is not a problem, because any major changes in the firm's environment takes a long time to filter through.

The firm's export behaviour is used here as an indicator for the differences between exporters and non-exporters on the basis of their environmental measures (internal and external). In other words, why are some firms involved in exporting and others are not.

Although this measure (i.e., export behaviour) is used in dichotomous categories *(i.e., exporters vs. non-exporters)*, it is adopted here for the following reasons:

* This measure was used by many studies in this field, such as Cavusgil and Naor 1987, Daniels and Goyburo 1976, Tesar 1977, and Layton and Dunphy 1970.
(1) To facilitate the comparison between the results of using it and the results of using the other measure (i.e., the level of exporting). This comparison will help the public policy-makers to formulate appropriate export promotional programmes for enhancing the level of exporting and encouraging other firms to become involved in exporting.

(2) Understanding the differences between exporters and non-exporters is of primary concern not only to the government, but also to the potential exporters who wish to enter foreign markets. This comparison will help them to identify the types of changes which should be implemented within their organisations in order to become involved in exporting.

(3) To facilitate the comparison between the findings of this study and the findings of previous works in this field (i.e., export behaviour).

4.3.2 The Constructs of the Firm's Internal Environmental Dimension

In the literature of the theory of a firm, the firm's internal dimension is described as a function of the management's goals, policies, abilities and position with past and present activities (Cyert and March 1963). In the empirical export marketing behaviour studies, Cavusgil & Nevin (1981) have advanced four broad categories for the firm's internal determinants. They include: (1) managerial goals and aspirations, (2) management's expectations, (3) the firm's comparative advantages, and (4) commitments to export marketing activity.

These above constructs, to some extent, were found to be significantly related to the export behaviour (see section 2.3.2 of Chapter Two). However, the types and the directions of relationships
among these constructs of internal determinants have not been well specified in previous studies. In particular, Cavusgil and Nevin (1981), in their export marketing behaviour model, did not define the types of relationships among the variables called 'background', i.e., the firm's differential advantages and its level of managerial aspirations. Therefore, the aim of the present study is to find out empirically the impact of the interaction of these constructs upon the firm's export behaviour, as well as its level of exporting.

In this study, the socio-demographic characteristics of decision-makers have been added as a fifth construct for the internal dimension, because the firm's desire to export is assumed to be a function of the manager's value system, experience, and aspirations level, etc. (see for example, Reid 1981).

4.3.2.1 Managerial Goals and Aspirations Level

The concept "aspiration" is introduced to decision-making theory by psychologists; and it is widely discussed in the theory of the firm (Cyert & March 1963). This behavioural concept of aspirations is defined as a determinant of risk-taking behaviour (McGuire 1964). Siegel (1957), who based his discussions of aspiration level on the work of Kurt Lewin, viewed aspirations as "a person's utility of the goals in question". Another behavioural scientist emphasised the aspirations level as "the value which the individual places upon the achievement of the goals rather than upon its utility" (Atkinson 1957).

Regardless of variations in definitions, the implications of this construct (i.e., managerial aspiration) put forward by Cavusgil (1976) were that decision-maker's preferences for basic business goals such as profit, growth, or the importance he places upon the achievement of
each goal is a direct determinant of his decision-making behaviour. Empirical studies supported this by reporting a strong relationship between export behaviour and the level of managerial aspirations to such goals growth, profit and security (see section 2.3.1.2.1 and Table 2.2 in Chapter Two). Therefore, the strength of importance that is placed upon the achievement of the basic business goals, such as growth, security, and profit, is more likely to explain the variations of the firm's export behaviour. For example, Cavusgil and Nevin (1981) found a strong relationship between the firm's export behaviour and the managerial keenness in pursuing basic business goals, such as growth and profit. However, previous empirical export studies did not investigate the type and the direction of the relationship between the managerial aspiration level and other constructs developed here in respect of the firm's export behaviour and its level of exporting.

The managerial goals and aspiration level are constructed and measured here in terms of the importance that the decision-maker places upon the achievements of each of the following exporting goals:

(1) Improving the firm's market position
(2) Increasing the firm's overall profit
(3) Securing steady growth for the firm's product (stability)
(4) Reducing the cost of production
(5) Increasing the sales volume of the firm's exporting products
(6) Developing the firm's market strategies.

4.3.2.2 Management's Expectations

The effect of management's expectations on business behaviour has been recognised and emphasized by many researchers in macro-economic literature, as well as in the theory of the firm. There have been several attempts to measure empirically the significance of the impact of the management's expectations (e.g., Bilkey 1978, & Cavusgil and Nevin 1981). In the theory of the firm, Cyert & March (1963) have
included the "theory of expectations" as one of four major elements of the behavioural model of the firm.

In export marketing behaviour, management's expectation is viewed as the decision-makers' subjective evaluations of the profitability, riskiness, and costliness of exporting (Cavusgil 1976), and is based upon the decision maker's own or other firms' experiences, as well as their perceptions of the potential impact of the constantly changing environment of international markets (e.g., Bilkey & Tesar 1977 and Cavusgil & Nevin 1981).

Several researchers have reported a strong relationship between the management's expectations and the firm's export behaviour (for more details, see section 2.3.1.2.1 of Chapter 2). But they did not specify any relationship between the construct of management's expectations and other constructs of the present study's model in respect of the level of exporting.

Therefore, the aims of this study are: (1) to investigate the effect of the interaction of the management's expectations level and the other constructs of this study's model upon the firm's export behaviour (exporters vs. non-exporters) and its level of exporting, (2) to find out whether the existing relationship between the level of exporting and the management's expectations can be extended to the firms investigated here.

Based on the review of export marketing literature, the elements of management's expectations level can be constructed in terms of the motives for, and the benefits of exporting, the perception of riskiness, and the perception of export operational obstacles (i.e., these obstacles which are mainly related to the firm's inability to undertake export marketing activities). These elements and the relevant variables can be seen in Table (4.2). However, it is worth
The Elements of Management's Expectations

<table>
<thead>
<tr>
<th>Elements</th>
<th>Influencing Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Motives for, and the benefits of exporting to the firm</td>
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<tr>
<td>- Overcoming instability demand on the local market.</td>
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<tr>
<td>- The expectations of management with</td>
<td></td>
</tr>
<tr>
<td>regard to the effect of exporting upon the firm's annual sales (growth).</td>
<td></td>
</tr>
<tr>
<td>- Preventing dependency on the local market.</td>
<td></td>
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<tr>
<td>- Overcoming competition on the local market.</td>
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<tr>
<td>- Using the firm's excess production capacity.</td>
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<tr>
<td>- Overcoming the small size of the domestic market*.</td>
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<tr>
<td>- The expectations of management with</td>
<td></td>
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<tr>
<td>regard to the effect of exporting on the firm's profits.</td>
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<tr>
<td>- The expectations of top management with</td>
<td></td>
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<tr>
<td>regard to the effect of exporting on the firm's security (stability).</td>
<td></td>
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<tr>
<td>- Benefiting from the government's export assistance.</td>
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<tr>
<td>- Keeping pace with local competitors we wish to export to.</td>
<td></td>
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<tr>
<td>- Better opportunities for our products in the foreign market.</td>
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<tr>
<td>2. Perception of riskiness</td>
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<tr>
<td>- Exchange rate risks*</td>
<td></td>
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<tr>
<td>- Transportation risks</td>
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<tr>
<td>- Production risks</td>
<td></td>
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<tr>
<td>- Collection on foreign credit sales</td>
<td></td>
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<tr>
<td>- Political risks or instability</td>
<td></td>
</tr>
</tbody>
</table>

* Sources: These variables have been selected from several empirical studies on export behaviour (see sections 2.3.1.2.3 and 2.3.1.2.2 of Chapter Two). However, while some of them had been modified, others* were developed by the researcher in order to suit the reality of the export situation in Jordan.
4. Perception of export obstacles

- Difficulty in obtaining sales representative.
- Difficulty of pricing the product in the foreign market.
- Difficulty of maintaining control over foreign middlemen.
- Inability to provide follow up services to overseas customers.
- Inability to provide credit facility to foreign customers.
- Difficulty in collecting money on foreign sales.
- Insufficient knowledge of communicating with overseas' customers.
- Difficulty of locating the demand for our products.
- Lack of personnel expertise for handling export tasks.
- Inability to establish distribution systems in foreign markets.
- Size of production*.
mentioning that some of the variables of the management’s expectation have been modified, and others have been developed by the researcher in order to suit the reality of the export situation in Jordan.

4.3.2.3 The Firm’s Comparative Advantages

The term "Comparative Advantage" or "Differential Advantage" is related to the special characteristics that a firm possesses in comparison to other firms. In export marketing behaviour studies, several researchers have sought to explore the set of a firm’s characteristics that seemed to facilitate a firm’s export marketing involvement (for more details, see sections 2.3.1.2.2 and 2.3.1.2.5 and Tables 2.3 and 2.7, Chapter 2). These advantages (characteristics) are derived from the nature of the firm’s capability, product features, technological orientation, managerial experience and knowledge, in addition to such things such as competitively priced products, technically superior production methods, marketing techniques and proximity to the market (e.g., Tesar 1977, Cavusgil 1976, Kolhede 1984, and Schlegelmilch 1983, etc.).

The effect of a firm’s differential advantages were found to be significantly related to the firm’s export behaviour (e.g., Cavusgil and Naor 1987). It has been indicated in previous studies that a firm’s possession of such unique advantages, and the extent of the decision - maker’s confidence in them would contribute to their willingness to consider export marketing as an alternative possible strategy. In other words, the uniqueness of advantage may serve as "initiation- evokers" for firms that are experimenting with exporting (Wiedersheim - Paul et al. 1978). However, they are insignificant by themselves (i.e., taken separately) to initiate exporting. For example, empirical findings on the relevance of a firm’s size as a
Table (4.3)

The Elements of the Firm's Comparative Advantages

<table>
<thead>
<tr>
<th>Elements</th>
<th>Influencing Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Firm's demographic</td>
<td></td>
</tr>
<tr>
<td>1.1 Size</td>
<td>- Number of employees</td>
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<td></td>
<td>- Size of the capital assets</td>
</tr>
<tr>
<td></td>
<td>- Total gross sales volume</td>
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<tr>
<td>1.2 Experience</td>
<td>- Number of years in business</td>
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<tr>
<td></td>
<td>- Number of years in exporting</td>
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<tr>
<td>2. Technological strengths</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- The superior product equipment</td>
</tr>
<tr>
<td></td>
<td>- The superior production methods</td>
</tr>
<tr>
<td>3. Product characteristics</td>
<td></td>
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<tr>
<td></td>
<td>- Product uniqueness</td>
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<td></td>
<td>- Product quality</td>
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<td></td>
<td>- Product competitive price</td>
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<tr>
<td>4. Market competitive</td>
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<tr>
<td></td>
<td>- The ability to modify the product</td>
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<tr>
<td></td>
<td>- Ability to offer special discounts*</td>
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<tr>
<td></td>
<td>- Proximity to foreign market</td>
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<tr>
<td></td>
<td>- Ability to hire highly skilled labour</td>
</tr>
<tr>
<td></td>
<td>- Ability to modify organisational system</td>
</tr>
<tr>
<td></td>
<td>- Strength of management</td>
</tr>
<tr>
<td></td>
<td>- Reputation*</td>
</tr>
<tr>
<td></td>
<td>- Firm's technological standard level</td>
</tr>
</tbody>
</table>

* Sources: These variables were borrowed from several export studies (see section 2.3.2.7 and Table 2.3 of Chapter Two). Other* variables were developed by the researcher.
source of differential advantage for export behaviour have been mixed, because the larger size firm allows for a greater availability of financial, production and managerial resources (Cavusgil & Nevin 1981). Therefore, the relationship which appears is not between size and export behaviour, but between the various advantages which are associated with the larger size firm and export behaviour. For more details about the findings of the impact the other sources of competitive advantages, see section 2.3.1.2.2 of Chapter Two.

The aims of this study are: (1) to investigate the impact of the interaction of the firm's comparative advantages and other constructs of this study's model developed here upon the firm's export behaviour and the level of exporting (2) to explore whether the existing relationship between the firm's level of exporting and the elements of the firm's comparative advantages can be extended to our study's investigation. These elements and the relevant variables that are related to the firm's comparative advantages are constructed in terms of four sources of comparative advantages, they are; (1) firm's demographic (2) product characteristics (3) technological strengths and (4) market competitive strengths (see Table 4.3). Being aware that some of the variables of these elements have been modified by the researcher in order to suit the current export situation in Jordan.

4.3.2.4 The Firm's Commitment to Export Marketing Activity

The term "commitment" is viewed as the extent of the firm's allocation of resources, as well as the willingness of the management to adapt their organisational and marketing policies to foreign market conditions (e.g., Kolhede 1984). The effect of the "management's commitment" upon the export behaviour is recognised and emphasized by many researchers. They assert that a favourable orientation, keen
interest, willingness to allocate resources, and to adapt
organisational and marketing mix policies to meet foreign market
conditions are important determinants of export marketing involvement
among firms (e.g., Pinney 1970; Khan 1975; Schlegelmilch 1983, 1986,
Kolhede 1984, Cavusgil & Nevin 1981; Kaynak & Kothari 1987; Sullivan
& Bauerschmidt 1990; Aaby & Slater 1989; Walters & Samiee 1990; and

Involvement in export marketing requires that a firm devotes human
and financial resources as well as management willingness to carry out
tasks that are new to the firm, and for building the infrastructure of
export marketing. Foreign market potential needs to be assessed,
policies regarding export marketing need to be formulated, production
for foreign markets need to be planned, new staff need to be hired and
trained, and so on.

Although the commitment of top management, in terms of the extent
of resources allocated for exporting, was found to be significant in
determining the firm's export behaviour, there is still an argument as
to whether such a relationship can be confirmed in the present study's
investigation. It is believed that the degree of the firm's commitment
to export marketing activities is not widespread among the firms
operating in developing countries such as Jordan.

As far as the degree of the commitment is concerned, there is a
need to find out the effect of the interaction of the management's
commitment to export activity and other constructs of this study's
model upon the firm's export behaviour and the level of exporting. The
relevant variables that are related to the firm's commitment to export
marketing activity are presented in Table (4.5).
Table (4.4)

The Elements of the Firm's Commitment to Export Marketing Activity

<table>
<thead>
<tr>
<th>Elements</th>
<th>Influencing Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Willingness to change</strong></td>
<td>- Willingness to modify product policies to foreign markets.</td>
</tr>
<tr>
<td></td>
<td>- Willingness to modify organisational and control system.</td>
</tr>
<tr>
<td></td>
<td>- Willingness to change pricing policies to foreign markets.</td>
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<tr>
<td></td>
<td>- Willingness to modify distribution policies to foreign markets.</td>
</tr>
<tr>
<td><strong>2. Export marketing activities</strong></td>
<td>- Participating in international trade fairs.</td>
</tr>
<tr>
<td></td>
<td>- Constantly seeking export opportunities*</td>
</tr>
<tr>
<td></td>
<td>- Planning systematically to explore foreign markets.</td>
</tr>
<tr>
<td></td>
<td>- Promotion of products in foreign markets</td>
</tr>
<tr>
<td></td>
<td>- Having a formal policy for handling several export activities.</td>
</tr>
<tr>
<td></td>
<td>- Using export research.</td>
</tr>
<tr>
<td></td>
<td>- Sending sales representative to foreign markets*</td>
</tr>
<tr>
<td></td>
<td>- Carrying out a systematic research of possibilities in exporting.</td>
</tr>
</tbody>
</table>

* Sources: These variables were derived from several empirical studies of export, see section 2.3.1.2.4 and Table 2.4 of Chapter Two. Other variables* were developed by the researcher.
4.3.2.5 The Socio-Demographic Characteristics of Decision-Makers

In export marketing behaviour studies, the decision-maker's socio-demographic characteristics such as age, experience, education level, and proficiency in foreign languages, are found to be critical not only to export initiation, but are also significantly related to the firm's export behaviour. However, these are insignificant by themselves (acting separately) to initiate exporting. Empirical export marketing studies produced conflicting findings with regard to each of these characteristics (for more details, see section 2.3.1.2.5 and Table 2.7, Chapter 2). This might be related to the fact that these characteristics were investigated separately (i.e., as a constant factor) rather than as concomitant variables (i.e., as a group).

Therefore, it is expected that these characteristics of the decision-makers taken together are more likely to have a larger impact on the firm's export behaviour (exporters vs. non-exporters) and the level of exporting than taken separately.

This study aims to find out whether there is any relationship between the firm's level of exporting and the decision-maker's demographic characteristics among the firms investigated, and to find out whether there is any relationship between the decision-makers' characteristics (taken together) and other constructs of this study's model upon the firm's export behaviour (exporters vs. non-exporters).
Table (4.5)

The Socio - Demographic Characteristics of Decision - Makers

<table>
<thead>
<tr>
<th>Elements</th>
<th>Influencing Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Demographic Characteristics</td>
<td>- Age</td>
</tr>
<tr>
<td>2. Education Background</td>
<td>- Level of education</td>
</tr>
<tr>
<td></td>
<td>- Proficiency in English language skills</td>
</tr>
<tr>
<td>3. Experience</td>
<td>- Number of years in business</td>
</tr>
</tbody>
</table>

Sources: These variables were derived from several empirical export studies, see section 2.7 of Chapter Two.
4.3.3 The Constructs of the Firm's External Environmental Dimension

As we indicated in Chapter Two empirical export studies with regard to the effectiveness of the external environment upon the firm's export behaviour and its level of exporting are still few and fragmented. Therefore, much of work here is based to a large extent on the firm's organisational and economic studies. The firm's external environmental dimension is proposed under two major constructs:

(1) The economic and commercial infrastructural environment

(2) The political and legal environment.

The purpose of this study is to explore empirically whether there is any relationship between the firm's external environmental measures and its level of exporting. Also, to find out the effect of the interaction of the internal environmental measures and the external environmental measures upon the firm's export behaviour (exporters vs. non-exporters) and its level of exporting.

4.3.3.1 The Economic and Commercial Infrastructural Environment

Based upon a review of the economic literature, the economic environment of a country tends to have a greater impact on the firm's activities and the practices which are required to be done (e.g., Keegan 1984). Therefore, one could expect that the firm's export behaviour can be viewed as a result of the economic conditions that exist in its environment.

It was found by studies of international business that orientation towards the foreign market is somewhat related to the domestic market conditions (Rao et al. 1990). In other words, the domestic market conditions may serve as external "initiation-evokers" that cause the firm to move or to consider the foreign markets as a possible alternative strategy. These domestic market conditions include: the
size of the local market in terms of population and income per
capital, pattern of demand and consumptions, degree of competition,
availability & quality of commercial infrastructure, availability &
quality of resources (raw material), the technological development, in
addition to other economic indicators such as inflation rate, exchange
rate, interest rate and so on (e.g., Cateora and Hess 1987, and
Terpstra 1988).

On the other hand, these economic conditions may act as a hindrance
for firms wishing to be involved in export marketing. For example,
while the small size of the domestic market in terms of population or
the income per capita may cause the firm to move into other markets,
the inadequate commercial infrastructure of the local market may
hinder its ability to be competitive in foreign markets, which in turn
affects its level of exporting.

Based on the consequences of the preliminary interviews which were
undertaken with the initial respondents of this study survey (see
Chapter 3), the domestic market conditions of Jordan, where the study
has been conducted, are expected to have a negative effect on the
firm's export behaviour. Despite the fact that Jordan has a small
domestic market, in terms of population and income per capital, which
might encourage firms to become involved in exporting (see section
1.7.2 and Table 1.1, Chapter One), the inadequate commercial
infrastructure, the low quality and shortage of raw material, and
other economic indicators, such as inflation rate, exchange rate are
very likely to effect their level of exporting negatively.

Therefore, this study aims to explore the effect of the domestic
market conditions upon the firm's export behaviour (i.e., exporters
vs. non-exporters) and the level of exporting. Furthermore, the
study aims to find out whether there is any relationship between the
Table (4.6)

The Elements of the Economic and Commercial Infrastructural Environment

<table>
<thead>
<tr>
<th>Elements</th>
<th>Influencing Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The Domestic Market Conditions</td>
<td></td>
</tr>
<tr>
<td>1.1 The Commercial Infrastructure</td>
<td>- Availability of transportation</td>
</tr>
<tr>
<td></td>
<td>- Availability of information</td>
</tr>
<tr>
<td></td>
<td>- Availability of warehouse facilities</td>
</tr>
<tr>
<td></td>
<td>- Ease of access to financial institution</td>
</tr>
<tr>
<td></td>
<td>- Availability of communications</td>
</tr>
<tr>
<td></td>
<td>- Availability of export credit* insurance</td>
</tr>
<tr>
<td></td>
<td>- Availability of effective trade* companies</td>
</tr>
<tr>
<td></td>
<td>- The cost of warehouse*</td>
</tr>
<tr>
<td></td>
<td>- The cost of highly skilled labour</td>
</tr>
<tr>
<td></td>
<td>- The cost of communication</td>
</tr>
<tr>
<td></td>
<td>- The cost of transportation</td>
</tr>
<tr>
<td>1.2 Raw material resources</td>
<td>- Availability of raw material*</td>
</tr>
<tr>
<td></td>
<td>- The quality of raw material*</td>
</tr>
<tr>
<td></td>
<td>- The cost of raw material*</td>
</tr>
<tr>
<td>1.3 Other domestic market indicators</td>
<td>- The domestic market demand</td>
</tr>
<tr>
<td></td>
<td>- Degree of competition in the domestic market</td>
</tr>
<tr>
<td></td>
<td>- The interest rate*</td>
</tr>
<tr>
<td>2. Foreign Market Conditions</td>
<td>- Degree of competition in the foreign markets</td>
</tr>
<tr>
<td></td>
<td>- Geographical distance</td>
</tr>
<tr>
<td></td>
<td>- Government's trade restrictions</td>
</tr>
<tr>
<td></td>
<td>- The political stability*</td>
</tr>
<tr>
<td></td>
<td>- Business practice in foreign markets</td>
</tr>
</tbody>
</table>

* Sources: These variables have been selected from several empirical studies on export behaviour (see section 2.3.2.1 of Chapter 2). However, while some of them had been modified, others were developed by the researcher in order to suit the reality of the export situation in Jordan.
domestic market conditions and the other constructs of this study model which developed here upon the firm's export behaviour and the level of exporting. The variables related to the domestic market conditions are presented in Table (4.6).

The effect of foreign market conditions on the firm's export behaviour, and its level of exporting may also take two forms: as a motivator or as a barrier. For example, while the attractiveness of the conditions of foreign markets may serve as a motivator for firms to be involved in, such as the availability of high demand or expected good marketing opportunities, the restrictions imposed on dealing with these markets may act as a hindrance for those firms wishing to operate there. In this study, it is expected that the foreign market conditions to have a greater effect on the firm's export behaviour and its level of exporting.

To summarize, the purpose of this study is to find out the extent to which the firm's export behaviour, and its level of exporting can be explained by the foreign market conditions, and whether there is a positive or negative relationship between the foreign market conditions and other constructs of this model upon the level of exporting and export behaviour. The variables related to foreign market conditions are presented in Table (4.6).

4.3.3.2 The Political - Legal Environment

It has been stated that a country's economic structure and development is a reflection of its political-legal environment characteristics (Keegan 1984). The international business literature as well as the economic literature assessed that the political forces of a given country tend to have a greater impact upon many aspects of business and economic behaviour. It tends to determine the extent of
freedom in which firms are committed to conduct their business in their pursuance of business goals. Therefore, the degree of government intervention on the firm's activities is very likely to determine their business behaviour.

In export marketing behaviour, the Government interventions can take two forms, as a hindrance or promoter. Whilst the Government can act as a hindrance through a number of restrictions, such as tariff, quota, legislation, procedure requirements, such as licence and inspections, and so on, it can act as promoter through its actions in the area of tax incentives, trade agreements, free trade zones, provision of information and so on.

As far as the effect of the Government's policies and procedures with regard to export is concerned, the Government of Jordan has adopted several export policies recently in order to enhance and to facilitate the level of exporting. Policies which resulted from this preliminary study interviews are; trade agreement policies, credit discount programme, devaluation of the Jordanian currency against foreign currencies, the temporary - entry system, the income - tax rebate policies, free - trade zones facilities, the duty - drawback system, the provision of information and provision of managerial services (e.g., trade fairs) through private institutions, such as the Chamber of Industry and the Trade Centre.

This study will attempt to find out if there is any relationship between the firm's level of exporting and the degree of importance attached to the Government's export policies among firms. It will also try to investigate whether there is a significant difference between exporters and non - exporters in terms of their evaluations of these Government's export measures.
### Table (4.7)

The Elements of the Political - legal Environment *

<table>
<thead>
<tr>
<th>Elements</th>
<th>Influencing Variables</th>
</tr>
</thead>
</table>
| 1. The government's export assistances | - The trade agreement policies  
- The export credit discount  
- The duty - drawback system  
- Provision of information  
- Managerial services  
- Free trade zone facilities  
- Devaluation of the JD  
- The Temporary Entry system  
- The government tax policy |
| 2. Knowledge or awareness of the government's export assistances policies | - Free Trade Zones facilities  
- The duty - drawback facilities  
- The export credit discount  
- The managerial services such as trade fair services  
- The temporary entry system  
- The Chamber of Industry services |
| 3. The government's export procedure and assistances related problems | - The customs export clearance process  
- The export license requirements  
- The inspection process  
- The cost of export documents  
- The duty - drawback instructions  
- The high import duties imposed on spare parts of production  
- The bank guarantee requirement  
- Inadequate tax incentives  
- The lack of Commercial Attaches |

*Sources: All of these variables have been developed by the researcher through the preliminary interviews, see Chapter Three.*
It is expected that the degree of the decision-maker's awareness and knowledge of these policies and assistances could result from the Government's attention in export promotion. Therefore, this study also aims to find out whether there is any relationship between the firm's export behaviour and the degree of the decision-maker's awareness and knowledge of these export policies.

On the other hand, the Government's policies and procedures with regard to export marketing are not without criticism. The results of the preliminary interviews with the initial respondents of this study showed that there were some complaints about them (for more detail see Chapter 3). The major complaints about them were: the complexity of the customs export clearance process, the complexity of the export licence requirements, the length of the inspection process for exported products, the complexity of currency exchange procedures, the high cost of export documents, difficulty in the duty-drawback system, the high duties imposed on the spare parts needed for production equipment, inadequate information about foreign markets, inadequate government tax incentives, and the lack of export credit guarantees system against non-payment risks.

This study will attempt to explore the extent to which these problems regarding the Government's policies and procedures are determining the firm's export behaviour and the level of exporting, and to find out whether there is any relationship between this construct (i.e., political-legal environment) and the other constructs of this model upon the firm's export behaviour and the level of exporting. The variables relating to this construct are presented in Table (4.7).
In this chapter, the conceptual framework for this study has been established through the integration of the factors that are assumed to govern the firm's export behaviour (exporters vs. non-exporters) and its level of exporting. Two broad dimensions are constructed to be related to the firm's export behaviour and its level of exporting, i.e., internal and external environment. The constructs of each dimension and the expected relationships among their constructs were discussed.

Table (4.8) represents a summary of the expected relationships investigated in this research. The generalised relationship stipulates that the level of exporting as expressed in terms of the export sales ratio is a function of the interaction of the internal variables and the external variables. The relationship is also applied to the firm's export behaviour (exporters vs. non-exporters). The combinations of these relationships represent the present study's framework, they are:

(1) The level of exporting/export behaviour is a function of the internal variables.

(2) The level of exporting/export behaviour is a function of the external variables.

(3) The level of exporting/export behaviour is a function of the interaction of the internal and external variables.
Table (4.8)
The Study's conceptual Framework
Relationships: Summary

1. The Dimensions of the Study's Framework

1.1 The Level of Exporting = export sales ratio
   Export Behaviour = exporters vs. non-exporters
   - Managerial goals and aspirations level
   - Management's expectations

1.2 Internal Dimension =
   - The firm's comparative advantages
   - The firm's commitment to export
   - The decision-maker's Demographic characteristics

1.3 External Dimension =
   - The political-legal environment
   - The economic and infrastructure

2. The Level of Exporting / Export Behaviour

1.1 Level of exporting
   Exporters vs. non-exporters

1.2 Level of exporting
   Exporters vs. non-exporters

1.3 Level of exporting
   Exporters vs. non-exporters

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CHAPTER FIVE

RESEARCH DESIGN AND
DATA COLLECTION

Introduction
5.1 Evaluating the Alternative Data Collection Methods
5.2 Deciding on the Most Appropriate Type of Questioning Methods
5.3 Deciding on the Appropriate Structure of the Interview
5.4 Deciding on the Domain of Respondents
5.5 Deciding on the Appropriate Key Respondent Approach
5.6 Deciding on the Appropriate Instrument of Measurement
5.7 The Questionnaire Development Process
5.8 The Interview Schedule and Response Rate
5.9 Preparing for Data Analysis

Summary
CHAPTER FIVE
RESEARCH DESIGN AND DATA COLLECTION

Introduction

The intention of this chapter is to explain the selection of an appropriate research design and data collection methods. This chapter represents the main constructs of the research and is divided into seven sections (see figure 5.1).

5.1 Evaluating the Alternative Data Collection Methods

The data required for this study is categorised into two main types: secondary and primary data.

Secondary data is defined as "data already collected and published for purposes other than the specific research needs at hand" (Kinnear & Taylor 1991). In addition to the saving in time and cost over primary data, secondary data also has other advantages, which include:

1. Helping to understand the problem under investigation
2. Suggesting improved methods to tackle the problem
3. Providing comparative data by which primary data can be interpreted and evaluated more meaningfully (Aaker & Day 1986).

The secondary data used in this research were the Government Census and other publications giving the external trade size, trade patterns, distribution and the structure of the industrial sectors which were selected for this study. These data were used to gain insight into the export position in Jordan, and to assist in identifying those sectors which show high export potential.

The other secondary data used in this study related to the existing literature concerned with the research problem. The purpose of using those sources of information was to have a better understanding of the
Figure (5.1)

Research Design Process

- Evaluating the Alternative Data Collection Methods
  - Deciding on the Appropriate Method for this Research
    - Deciding on the Appropriate Scale of Measurement
      - Questionnaire Development
        - Selecting on the Appropriate Respondent Target
          - Data Collection Method
            - Preparing Data for Final Stage
problem, and to determine the required data and the suitable method for data collection.

However, in spite of its importance, and the necessity for using it, as mentioned above, it was found that secondary data was not sufficient to solve the research problem. This was due to the major limitations of the secondary data, which related to finding the most suitable and the accurate data.

As mentioned in the first chapter, the problem investigated in this study has not been undertaken before in Jordan, or in any of the Middle Eastern countries in a similar economic position. Marketing research in general, and export marketing research, in particular, are very rare in Jordan. There is a lack of recorded data. El-Ansary (1985) points out: "Marketing is the most neglected function in the enterprise of Middle Eastern Countries". Also, Drucker (1958) noted: "In less developed countries, marketing and marketing channels are often neglected". Amerah & Samdi (1979) noted: "Marketing in Jordan has been neglected, unfavourably evaluated & that its role in economic development and in promoting exports has not been appreciated yet".

Therefore, and in spite of the cost in money and time, there was no alternative but to conduct a field study to collect the primary data required for this study.

Primary data can be obtained through experimentation, analogies and respondents (Kinnear and Taylor 1991). The experimentation and analogous methods were unsuitable because the limits of time and budget. Thus, the respondents method was chosen.

Parasuraman (1986) classified the primary data collection methods into two broad categories: questioning and observation. In the questioning approach respondents play an active role, while in the observing approach respondents do not directly interact, or
Figure (5.2)

The Process of Selecting the Appropriate Type of Data and the Appropriate Data Collection Method

Type of Data

- Secondary
  - External
  - Internal

- Primary
  - Respondent
  - Analogous
  - Experimental

Type of Data Evaluation

Primary Data Respondent selected

- Observation
- Communication

Evaluation

Communication Method Selected

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communicate with the researcher. The communication (questioning) approach was considered more appropriate method for this study because of time limitations and also the numbers of and types of variables that needed to be measured.

A key strength of the observation method is that it is more likely to provide more accurate data, since distortions deriving from respondents will be much lower than in studies employing questioning methods. Questioning methods are also less convenient for respondents, and require the need to secure their cooperation (Parasuraman 1986). However, Kinnear and Taylor (1991) suggest that these limitations can be controlled by properly designing the data collection instruments.

5.2 Deciding on the Most Appropriate Type of Questioning Methods

There are three main questioning methods: personal interview, telephone interview, and postal interview.

The telephone interview method was eliminated from the outset, because it had to be shorter than other two alternative methods, and the level of cooperation of the respondents was likely to be lower than free to free contact.

In this research, the personal interview questionnaire was preferred to the postal interview alternative, although it was more expensive, and probably more biased, because of the influence of the interviewer.

There are seven major reasons for this decision:

(1) The postal survey questionnaire would almost certainly remain unanswered by the firms in Jordan, due to a general lack of acceptance and familiarity with this means of gathering information, combined with a cultural reluctance to give written information to an unknown person.
Figure (5.3)

Deciding on the Appropriate Communication Methods

Communication Methods

- Personal Interview
- Telephone Interview
- Postal Interview

Evaluation

- Personal Interview Selected

The Interview Structure and Directions

- Structured Direct
- Structured Direct
- Unstructured Direct
- Unstructured Direct

Evaluation

Structure - Direct Interview Selected
The personal interview questionnaire permitted us to ask a relatively larger number of questions. Clarification and follow up remarks were also possible to supplement the knowledge gathered.

One of the purposes of this questionnaire was to obtain information coded by some firms "confidential" or classified, such as annual sales, export ratio, number of countries exported to, and so forth. This type of information is less likely to be secured by the postal questionnaire.

The personal interview questionnaire allows better clarification of the meaning of terms or misunderstanding.

The appointments were pre-arranged by telephone calls directly with the persons concerned. Thus, by personal interview, we derived a relatively higher percentage of response, about 73.6% of the population surveyed.

Identity of the respondent could be ascertained, and we could also obtain general information about the respondent.

Furthermore, it was expected that people would be more forthcoming in face to face interviews. In fact, in the preliminary interviews, the interviewees indicated that were more comfortable with personal contact more than indirect approaches.

The disadvantage of a personal interview using direct questionnaires are relatively limited. The most important disadvantage is the danger of personal bias. This potential disadvantage was limited by presenting the respondent with the questionnaire and asking him to complete it by himself (with the interviewer present).

5.3 Deciding on the Appropriate Structure of the Interview

There are two broad types of interviews: structured and unstructured, or standardised and unstandardised (Kerlinger 1986).
Structure was defined by Churchill (1987) as the degree of standardisation imposed on the questionnaire. Directness is the amount of knowledge about the purpose of a study communicated to a respondent.

The structured – direct technique is used in this research. This technique necessitates the questions being presented with exactly the same wording, and in exactly the same order to all respondents. The reason for standardisation is to ensure that all the respondents are replying to the same questions (Churchill 1987). The major advantage of using the standardised – direct interview, is that it is simple to administer and easy to tabulate and analyse.

5.4 Deciding on the Domain of Respondents

As discussed in the previous section, it was decided that a field study was necessary for the current study's objectives. Because this study is mainly concerned with the investigation of the export behaviour of manufacturing firms, firms engaging in any business outside this industrial category were excluded from the study, such as agriculture products or services.

The survey units in this study were the individual manufacturing firms of exporters and potential exporters. The decision of the choice of the individual firm as a focus for study derived from the nature and the objectives of the study. In other words, the investigation was conducted at the micro level.

Furthermore, the choice of the individual manufacturing firm as a unit for the field study was supported by the theory of the firm. For example, Cyert and March (1963) suggested that;

"the individual firm is a unit which coordinated and undertook critical aspects of economic activity".
The identification of the individual manufacturing firms in the country (Jordan) was done by obtaining names of all firms, as well as their addresses, from a variety of private and public sources, such as the Chamber of Industry, the Trade Centre, the Ministry of Commerce, and the Central Bank of Jordan. These sources were reviewed in order to identify the type of industrial sector, and the range of the number of firms in each sector.

Restrictions of time and financial resources made the inclusion of all firms impossible. It was decided to choose certain types of manufacturing sectors for the current study. On the basis of the study's objectives, and the data analysis techniques to be employed, two conditions were considered in the selection of the type and number of these sectors. These conditions were: (1) the industrial sector must exhibit a high export potential and contains a substantial number of exporting firms, and (2) their relative importance to Jordan's economy must be shown to be high. The relative importance of each sector is measured in terms of its contribution to the GNP (Gross National Product), see Chapter (1).

Based upon the two above conditions, six major industry sectors were selected for the field of this study. They were: Engineering, Clothing, Supply, Plastic and Leather, Chemical and Chemist, and Construction.

The total population of the firms in all the selected industry sectors constituted 526 firms which represented about 70% of all the manufacturing firms in the industry sectors in Jordan. The distribution of firms in the selected industry sectors is presented in Table (5.1).
Table (5.1)

The Domain of the Study's Respondents
According to the Type of Industrial Sector

<table>
<thead>
<tr>
<th>Name of Sector</th>
<th>Number of Firms</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering Industries</td>
<td>94</td>
<td>17.9</td>
</tr>
<tr>
<td>Clothing Industries</td>
<td>159</td>
<td>30.3</td>
</tr>
<tr>
<td>Chemical &amp; Chemist Ind.</td>
<td>46</td>
<td>08.7</td>
</tr>
<tr>
<td>Construction Industries</td>
<td>78</td>
<td>14.8</td>
</tr>
<tr>
<td>Plastic &amp; Leather Ind.</td>
<td>59</td>
<td>11.2</td>
</tr>
<tr>
<td>Supply Industries</td>
<td>90</td>
<td>17.1</td>
</tr>
<tr>
<td>Total</td>
<td>526</td>
<td>100.0</td>
</tr>
</tbody>
</table>

5.5 Deciding on the Appropriate Key Respondent Approach

The major sources of data were the individuals to whom the self-administered questionnaire was subsequently directed. Their selection was a very important issue. Campbell (1955) suggested that the informant would not be chosen for statistical representativeness, instead he would be chosen because he possessed special qualities. The informant should occupy a role that makes him more knowledgeable, regarding the issues under the study, and more capable of "speaking the language of the researcher". Pennings (1979) supported the use a single key informant where most of the informants occupy top executive, or ownership positions. He argued that managers at the higher level of management and owner managers were the key figures in dealing with the external environment and were suitably qualified to speak for the firm.

However, these views have come under criticism (Philips 1980, 1981 and Seidler 1974). The criticism has been that the single informant is not capable of providing reliable data. Using a single or a few informants can lead to unreliable data.
Although there is still some argument regarding the particular reliability of the key informant, it is essential for this study that the target respondent should be the director of the firm. The reason is that the type of information sought makes it mandatory that the respondent be not only in a position of being the firm's policy-maker, whose decision will have a strong influence on the direction the firm will pursue, but also must occupy a position that makes him knowledgeable regarding foreign trade involvement, as it relates to the firm's overall business operations.

Furthermore, the relatively small size of Jordan's manufacturing firms (in terms of number of employees and capital assets), as well as the consuming time and cost associated with the use of the multiple informant approach made it is essential to rely upon a single informant for collecting data for this study. In addition, previous works in exporting supported this notion by claiming the top executive to be the key informant in this type of study (e.g., Cavusgil 1976 and Olson & Wiedersheim-Paul 1978).

As a result, an effort was made to access the person at the higher level of management of the individual firm, i.e., the chief executive or the director.

5.6 Deciding on the Appropriate Instrument of Measurement

Measurement is defined as "the rules for assigning of numbers to objects in such a way as to represent quantities of attribute" (Churchill 1987). There are four general levels of measurement: nominal, ordinal, interval and ratio. However, the selection of the appropriate level of measurement is difficult. This arises mainly from disagreement over the statistics that can legitimately be used at the different levels of measurement (Kerlinger 1986). Churchill (1987)
suggested that the empirical evidence indicated that:

"None of the scaling devices is superior in all instances. Each one has its place nor is there one single optimum number of scale positions or single optimum conditions for other measured characteristics. The nature of the problem, the characteristics of the respondent and the planned mode of administration will and should affect the choice as to which technique should be used in a particular instance and what features the scale should possess".

In the first part of this study's questionnaire (from Q1 to Q101), the rating 7 point scale was used. The justification for using this type of scale was as follows: (1) It is relatively easy to construct and administer, and (2) Subjects generally find it easy to respond because the response categories allow sufficient expression of intensity of feeling (Churchill 1987).

Furthermore, the selection of the rating 7 point scale is based on the fact that empirical studies have suggested that scales with three or more points can, and do provide a valid measure (Jacoby and Matell 1971, Bendig 1954, Boote 1981, and Burns and Harrison 1979). Also, in discussing the validity and reliability of different scales, Churchill and Peter (1984) concluded that the reliability of different scales would be increased as the number of items used in the final scale as well as the number of the scale points increased.

Boote (1981) suggests restricting scales to five and seven points. On the one hand, any fewer than five points would reduce the scale's ability to discriminate, since the respondent would be less able to express refined gradations. On the other hand, more than a seven point scale would be less than the optimum, because of the limited increase in information gathered. Lehmann & Hulbert (1972) commented:

"... increasing the number of scale points reduces the rounding error as benefit, but may also increase cost of administration, non - respondent bias and respondent fatigue, since averaging tends to reduce the rounding error. When scale points aim to be averaged the cost of increasing the number of scale points will usually out-weight the benefit".
The nominal scale was employed in parts 2 and 3 of this questionnaire, which covered the socio-demographic characteristics of the decision-maker, as well as the firm's parameters. Though this scale is simplest amongst those available, it is appropriate for such category data (e.g., the type of industry, type of education, etc.). The questions in the nominal scale cannot be used for normal arithmetic calculating, adding, subtracting, multiplying or dividing.

5.7 The Questionnaire Development Process

The questionnaire development process used here was suggested by Churchill (1987), see figure (5.4). Steps (1) and steps (2) were presented in the previous section.

Step (3) determines the content of the individual question: The content of the questionnaire depends upon the type of data required to be collected, data collection methods, and the ultimate use of the results. Since this study is concerned with the impact of the firm's environment (external and internal) upon its export behaviour, and the level of its exporting, it is necessary that the main constructs of both external and internal environments be covered in the questionnaire.

Each respondent was asked about each of the variables which constitute each construct. These variables were drawn from the literature review, as well as from a series of preliminary interviews. All unnecessary or confusing questions were either altered or modified during the pre-test stage.

Step (4) determines the form of response to each question: Several forms of responses were suggested in the marketing research literature including the open-ended question, the multichotomous question, the dichotomous question and the scale. The open-ended questions were
Figure (5.4)

Questionnaire Development Process

Step (1) Specify What Information Will Be Sought

Step (2) Determine Type of Questions and Method of Administration

Step (3) Determine Content of Individual Questions

Step (4) Determine form of Response to Each Question

Step (5) Determine Wording of Each Question

Step (6) Determine Sequence of Question

Step (7) Determine Physical Characteristics of Questionnaire

Step (8) Re - Examine Step 1-7 And Revise If Necessary

Step (9) Pre - Test Questions and Revise If Necessary

eliminated due to the use of a structured - direct questionnaire.

Step (5) deciding on question wording: Since the rating 7 point scale was selected, the meanings of the questions were stated clearly and directly in simple language.

Step (6) deciding on question sequences: Several strategies are suggested to tackle the question sequences (see Churchill 1987), such as using simple interesting opening questions or using the funnel approach design, branching questions with care and placing classification information last.

As far as possible these strategies were used, for example starting the first part of the questionnaire with questions considered to be easiest and leaving the other questions which might be considered difficult or sensitive to the last. The general information about both the firm and the decision - maker (classification questions) were placed in the last part of the questionnaire.

Step (7) determine physical characteristics: The questionnaire was typed and revised several times by professional people before it was copied and distributed. When the questionnaire appeared to have a satisfactory appearance, it was copied and then pre - tested. All the comments and suggestions received, whether relating to the appearance of the questionnaire, or the wording of some parts, were considered when preparing the final copy. The only complaint which could not be rectified was about the length of the questionnaire. It was a very lengthy questionnaire, but all the variables covered were important for the study, and it was not possible to omit any of them. However, the response rate 73%, in comparison to similar studies, can be considered a satisfying indicator that the questionnaire was manageable.
Step (8) re-examination and revision of the questionnaire: Churchill (1987) suggested that each question should be reviewed to ensure that the question was not confusing or ambiguous, potentially offensive to the respondent, leading or bias inducing, and that it was easy to answer. The questionnaire was pre-tested at three different stages: Areas to be covered by the pre-test were:

1. The content validity of the questionnaire
2. The ease of understanding of the contents
3. The willingness and ability of executives to respond to the questions.

We indicated in the previous section that the contents of the study's questionnaire was based on a review of related literature on export behaviour, as well as on the results of preliminary interviews conducted with a number of authorities (in both public and private institutions), and a number of initial respondents in the manufacturing firms in Jordan. In the first stage, the first copy of the questionnaire which had been developed, designed and translated into English, was reviewed by researcher's supervisors. The questionnaire was then redesigned in the light of their suggestions and comments. At the second stage of the pre-test, staff members of the Department of Business at the University of Jordan, knowledgeable in international business and in questionnaire design reviewed the questionnaire and commented on its clarity and relevance.

After incorporating their comments in a revised questionnaire, stage three of the pre-test was carried out with few respondents firms. The presidents of 10 manufacturing firms were contacted and their cooperation solicited. Of the ten firms contacted, 8 managers were able and willing to participate in the interview. The validity of the questionnaire content was investigated through open-ended interviews. The content of the questionnaire was discussed. This
procedure allowed the researcher to check for possible misunderstandings, and also permitted assessment of willingness and ability to respond to the questions. As a result of this stage the questionnaire was re-edited for the final stage.

5.8 The Interview Schedule and Response Rate

The interview process for collection of data for this research was undertaken over five months. The response rate was 73.6% of the all firms surveyed (see Table 5.2), because interviews were planned as follows:

(1) An exploratory telephone call was made to each of the potential respondent firms included in the domain of the study's population, in order to identify the key respondent, the exact address of the respondent's firm (the place where the interview took place), and ask for their possible cooperation in order to make an appointment for the interview. The researcher was also able to visit many firms to ask for cooperation and to make an appointment for an interview. This was done with many of the respondents' firms, because their locations were easy to reach.

Having identified the name of the potential respondent's firms who had responded favourably to the interview, as well as the time and the place, the field study (the interviews) were then started. Each interview was held separately, and was carried out at the informant's place of business.

(2) Five recommendation letters were attached with each questionnaire. They were addressed generally to the President of each respondent's firm, in order to gain their full cooperation and assistance. These letters were signed by the sponsor of the researcher (i.e., the University of Jordan), the Minister of Industry and
Commerce, the Chairman of the Chamber of Industry, the Head Officer of the Export Association, and the researcher's supervisors (Appendix 4).

(3) The average time for each interview was approximately one hour, and after each interview was finished, appreciation of their cooperation was conveyed to them orally.

<table>
<thead>
<tr>
<th>Type of Sector</th>
<th>Number of Firms No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>75</td>
<td>19.4</td>
</tr>
<tr>
<td>Clothing</td>
<td>105</td>
<td>27.1</td>
</tr>
<tr>
<td>Chemical &amp; Chemist</td>
<td>40</td>
<td>10.3</td>
</tr>
<tr>
<td>Construction</td>
<td>59</td>
<td>15.2</td>
</tr>
<tr>
<td>Plastic &amp; Leather</td>
<td>44</td>
<td>11.4</td>
</tr>
<tr>
<td>Supply</td>
<td>64</td>
<td>16.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>387</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

As a result of this effort, the number of firms which were actually co-operative, and participated in the study was 387. This total represents 73.6% of all the domain of the firms selected. The distribution of the co-operating firms in terms of the industrial sectors which they belong to is given in Table (5.2).

One hundred and thirty nine did not respond representing about 27% of all firms approached. The reasons for their non-participation in this study are explained as follows:

(1) 23 firms were closed down at the time of the data collection.
(2) 51 firms refused totally to participate in this study, or to give any sort of information. This could be due to the fact that the collection of data was carried out at the same time that the Gulf crisis was taking place which made them unwilling to take part in this study. It is worth mentioning that about 20% of the exported products
of Jordan were directed to Iraq (the country which was one of the main participants of the Gulf Crisis).

(3) 12 firms belonged to more than one sector (i.e., 7 firms belonged to 2 sectors, 3 firms belonged to 3 sectors, and 2 firms belonged to 4 sectors, which make a total 19 firms not included in this study). In this case, these firms were assigned to the major sector to which they belonged, in order to avoid a multiple response from the same firm.

(4) 19 firms did not participate in this study because their directors were out of Jordan at the time of the data collection.

(5) 27 of the respondents' firms failed to finish the interview completely (8 of them hastily completed the questionnaire, 7 of them completed half of the questionnaire, and the rest gave their apologies for their inability to continue the interview).

Table (5.3)
Chi - Square Analysis of the Study's Respondents In Terms of Industrial Sector

<table>
<thead>
<tr>
<th>Type of Sector</th>
<th>Observed Frequencies (Fo)</th>
<th>Expected Frequencies (Fe)</th>
<th>(Fo - Fe)²</th>
<th>(Fo - Fe)² / Fe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>75</td>
<td>69.16</td>
<td>34.11</td>
<td>0.493</td>
</tr>
<tr>
<td>Chemical</td>
<td>40</td>
<td>33.84</td>
<td>38.00</td>
<td>1.137</td>
</tr>
<tr>
<td>Supply</td>
<td>64</td>
<td>66.22</td>
<td>05.00</td>
<td>0.073</td>
</tr>
<tr>
<td>Clothing</td>
<td>105</td>
<td>117.00</td>
<td>144.00</td>
<td>1.230</td>
</tr>
<tr>
<td>Construction</td>
<td>59</td>
<td>57.40</td>
<td>2.56</td>
<td>0.005</td>
</tr>
<tr>
<td>Plastic &amp; Leather</td>
<td>44</td>
<td>43.40</td>
<td>0.36</td>
<td>0.008</td>
</tr>
<tr>
<td>Total</td>
<td>387</td>
<td></td>
<td></td>
<td>2.977</td>
</tr>
</tbody>
</table>

* Expected frequencies (Fe) = Industry sector total x 387
* Calculated chi - square value = 2.977
* Degree of freedom = 5
* Level of significance < 0.05
* Tabled value of Chi - square = 11.07
The chi-square test (goodness of fit) was employed to measure whether there was a significant difference between the distribution of the respondents' firms and the distribution of the non-respondents' firms in terms of the industry sector which each firm belongs to.

As can be seen in Table (5.3), the calculated chi-square value was not significant. Therefore, it can be concluded that each sector had a similar response rate.

5.9 Preparing for Data Analysis

Before starting the data analysis, it was necessary to undertake the preliminary steps of editing, coding, and tabulating the data.

Editing: The term editing, as used in marketing research, refers to the process of examining completed questionnaires and taking whatever corrective action is needed to ensure that the data is of a high quality (Parasuraman 1986). Editing is often done in two stages: the field edit and the central-office edit. The field edit is a preliminary edit, designed to detect the most obvious omission and inaccuracies in that edit. In this research, effort has been made to keep the data accurate.

Office editing: This involved a more complete and exacting scrutiny and correction of the completed return questionnaire (Churchill 1987). There are five areas in which the editing function should be concerned, they are: legibility, completeness, consistency, accuracy and response classification (Kinnear and Taylor 1991).

In this study, most of the editing work was done by the researcher himself. All questionnaires were inspected, to ensure that they were properly filled in, and that no significant omissions were allowed. The partially filled in questionnaire in which any questions were left unanswered omitted from analysis. However, if the omitted questions
were few, the questionnaire was allowed to be used in the final analysis and unanswered questions were assigned a missing value. Also, if the questionnaire appeared to be hastily filled in (for example, assigning number 7 for all the variables, then the questionnaire was eliminated from the final study).

Coding and entering the data: Coding means translating answers into both class membership and into a symbolic representation of this membership, usually a column and position designation on a punch card used for machine tabulation (occasionally coding is used in manual tabulation, but this is more of a type of shorthand than of a truly symbolic code) (Ferber 1974).

In this research, the coding was done manually. There was little difficulty in coding the questionnaire, since most of the questions were to be rated on a scale of seven points (Q1 to Q101), but the other questions, i.e., the firm's parameters as well as the socio-demographic characteristics of the decision makers were categorically measured. Each edited and coded question was transferred to a Coding Sheet. Every completed and edited coding sheet was sent directly to the Computing Department to be entered into the computer and copied onto computer diskettes on a Mainframe.
Summary

This chapter explains the various processes of selecting and designing the research instrument, as well as the data collection procedures. Although secondary data sources are always important, they are not always sufficient to resolve the research problem. A review of the main data collection methods, including observations, experiments and questioning have been presented.

Questioning was the method chosen for this research, and justification for using this method rather than an alternative method was made. The advantages and disadvantages of the different methods were also discussed. For time and cost reasons the questioning method was the most appropriate method for this research. However, the questioning method was not free from drawbacks. These drawbacks and the measure taken to reduce their impact were presented in the chapter. The various methods of questioning techniques (direct interview, telephone interview and postal interview were also discussed). Direct interview selected as the best method for this research.

Several forms of the questionnaire were looked at including: direct non-structured, indirect non-structured, direct structured and indirect structured. On the basis of relative advantages and limitations, it seemed that the direct-structured form was the most appropriate form for this research.

The domain of the study population was also been explained, and the decision to select appropriate industrial sectors for the field of the present study justified. The selection of the appropriate key respondent approach to be contacted within the firms was discussed and
"the single informant approach" method was found to be most appropriate.

Several forms of measures were also explored. The reasons for selecting the 7 point scale, nominal scale and ratio scale for various parts of the questionnaire were explained. The questionnaire development stage was explained and the various stages suggested by the marketing research literature for developing a sound questionnaire were followed. The pre-test stage of the questionnaire proved to be useful in eliminating, adding and rewording some of the questions, and finally, the stage of data preparation for final analysis was explained. These processes included: editing, coding, transferring the coded data to the coding sheet and data entry.
CHAPTER SIX
RESEARCH METHODOLOGY

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Summary
CHAPTER SIX
RESEARCH METHODOLOGY

Introduction

In the previous Chapter, the process of data collection, design of the questionnaire, and data preparation for the final stage of analysis were fully presented. The aim of this chapter is to provide a brief explanation of the statistical analysis techniques used in achieving the research objectives and hypothesis testing.

6.1 Classification of Statistical Techniques

Marketing research literature suggests different methods for data analysis which can be classified into three techniques according to the type of data and number of variables (e.g., Churchill 1987). Namely, Univariate, Bivariate, and Multivariate. The univariate technique is used if there is a single measurement of each of the Kth sample objects, or if there are several measurements of each of the Kth observations, but each variable is to be analyzed in isolation. The central tendency measures (mean, median, mode) and the measures of dispersion (standard deviation, relative and absolute frequencies), as well as the T-test, F-test, and chi-square test are among the suggested techniques which can be used.

The bivariate analysis technique allows the researcher to examine the interaction between variables taken two at a time. For example, the investigation of the relationship among pairs of variables. Suggested bivariate techniques are: linear correlation coefficient, rank correlation coefficient, contingency coefficient lambda, t-test
on regression coefficient, Mann - Whitney U - test, Kolmogorov - Smirnov test, chi - square test and others (Kinnear & Taylor 1991).

The multivariate analysis technique is concerned with the investigation of interaction among a set of variables. The multivariate techniques can be classified as either dependent or independent. The dependent methods imply that one or more variables are specified as being predicted by a set of independent variables, while the independent method implies that there is no variable selected as being a dependent variable.

The dependent method might include: analysis of variance (ANOVA), analysis of variance and covariance (ANCOVA), multiple regression, automatic interaction detection (AID), multiple classification analysis (MCA), and discriminant analysis (DFA). The independent methods might include: cluster analysis, factor analysis, latent structure analysis and non - metric multidimensional scaling.

The decision was made in the research to use a combination of the above data analysis techniques. From the multivariate techniques, factor analysis, regression analysis, and discriminant analysis were employed.

The following bases were used for selecting these statistical techniques. According to Churchill (1987) the selection of the appropriate technique depends on:

1. The type of data (nominal, ordinal, interval and ratio)
2. The research design (dependency of the observation, number of observations per object, number of groups being analyzed)
3. The assumptions underlying the test statistics.

This research study focuses on the investigation of the effect of the firm's internal and external environmental measures upon its level of exporting and export behaviour. The external and internal environmental variables were measured on 7 point scale which was
assumed to have an interval property. This necessitated the use of various statistical techniques suitable for each level.

6.2 The Statistical Methods Used for Research Objectives

6.2.1 Factor Analysis

Factor analysis is an interdependence multivariate technique. It can be defined as a procedure that takes a large number of variables or objects and searches to see whether they have a small number of factors in common which accounts for their inter-correlation (Kinnear & Taylor 1991).

The common factor analysis assumes that each variable is a function of the same set of underlying common factors plus a factor unique to that variable. However, each variable has a different set of weight associated with the factor analysis (Kim & Muller 1978).

In applying factor analysis one is interested in examining the strength of the overall association among variables in terms of a smaller set of linear composites of the original variables that preserve most of the information in the full data (Aaker & Day 1986). In other words, the factor analysis procedure involves finding a way of linearly transforming the original variables into a new smaller set of independent factors, which when multiplied together in a special manner will produce the original correlation matrix as closely as possible.

Factor analysis can be applied for two major functions. One function, is to identify underlying constructs in the data (Aaker & Day 1986) by deriving dimensions in the data which combine each group of similar variables under specific termed factors. A second function of factor analysis is simply to reduce a large number of variables to a more manageable set (Brown 1980). The smaller set of variables
express that which is common among the original variables. Generally speaking, factor analysis can be useful to the analyst in three ways (Wells & Sheth 1971). Firstly, it can point out the latent factors or dimensions that determine the relationship among a set of observed or manifest values. Secondly, factor analysis can be helpful in pointing out the relationship among observed values that were there all the time but not easy to see. Thirdly, factor analysis is useful when things need to be grouped.

6.2.1.1 Methods of Extracting Initial Factor

The main objective of the extraction step in exploring factor analysis is to determine the minimum number of common factors that would satisfactorily produce the correlation among the observed variables (Kim & Muller 1978).

In this research, the principal component analysis is employed. According to Hair et al. (1987), this method is an appropriate one when the objective is to reduce a large number of variables to a smaller set of uncorrelated variables for subsequent use in a regression or other prediction techniques, and also when the researcher has prior knowledge suggesting that unique and error variance represents a relatively small proportion of the total variance.

In using factor analysis, the researcher must in one way specify the number of factors to be considered, since we normally begin an analysis without knowing how many factors, or which factors underlie a set of manifest variables. Jackson (1983) stresses the importance for the investigator not to leave out any important factors. If this occurs, the results will be basically worthless. On the other hand, if the researcher instructs the programme for many factors more than the
important ones, those factors will appear on the programme output but contribute little to the explanatory power of the factor model.

In fact, carrying the analysis too far has penalties, it is wasteful of computer time as well as obscuring the meaning of the findings. An exact quantitative method for determining the number of factors to rotate has not been developed, therefore, two rules of thumbs are simultaneously used here for this purpose:

(1) Interpretability - by this method the smaller factors are retained only if they have sufficient substantial meaning to be interpreted (see for example, Nunnaly 1967).

(2) Eigenvalue - by this criterion the analysis is limited to the number of factors with an eigenvalue* greater than one (Corsuch 1973). The rationale for this approach is that any individual factor should account greater for at least the variance of a single variable if it is to be retained for interpretation (Hair et al. 1987).

6.2.1.2 Factor Analysis Input / Output

The input of factor analysis is usually a set of variable values for each individual or object in the sample. In this present research, the input is a set of attributes that relate to each construct alone. In other words, the variables which express each construct of the firm's environmental dimensions were used as inputs for factor analysis. Factor analysis uses a derived matrix of correlation, the components of which provide a measure of similarity between variables. Factor analysis has value only when correlation amongst a subset of variables really exists. The higher these inter correlation are, the better defined are the resulting factor dimensions. The most important

* Eigenvalue: The column sum of square for a factor; also referred to as the Latent root. It represents the amount of variance accounted for by a factor (Hair et al. 1987).
outputs are; factor loading, the factor scores and variance explained percentages. Each of the original variables has a factor loading on each factor. The factor loading is the correlation between the factors and the variables. These are used to interpret the factors. Furthermore, the nearer to one the factor loading is, the stronger the association between the variable and the factor (Crawford and Lomas 1980). Normally, factor loadings are crystallized by using a rotation procedure, the most commonly used is the varimax orthogonal rotation which attempts to produce some high loading and some near zero loading on each factor. The varimax orthogonal rotation method is preferred when the objective is to utilize the factors results in a subsequent statistical analysis (Hair et al. 1987). This because the factors are orthogonal (uncorrelated) and therefore eliminate the collinearity.

The interpretability of factors is facilitated when individual factor loading is high or low (Cattell 1978). Aaker (1973) also reminds us that while it attempts to maximize the number of factor/variable correlations that are either high or low, it also minimizes the number of factors with which a variable is correlated.

6.2.1.3 Use of the Factor Analysis in the Study

Factor analysis was used in this study for the following objectives:

1. To find out the main patterns of factors that underlie each construct of the internal and external environmental dimensions.
2. To use the output of the factor analysis as an intermediate step for further analysis by regression and discriminant analysis.

* It is decided that the cutoff point for the factor loadings should not be less than .30. The rational for this those variables which load above or equal .30 on any factor are considered significant (Hair et al. 1987).
(3) To overcome the potential problem of intercorrelation among independent variables, i.e., the multicollinearity problems.

6.2.2 Multiple Regression Analysis

Multiple regression is a multivariate statistical technique through which one can analyse the relationship between a dependent or criterion variable, and a set of independent or predictor variables. Multiple regression can be viewed either as a descriptive technique by which the linear dependence of one variable on another is summarized and decomposed, or as an inferential tool by which the relationship is the population evaluated from the examination of sample data (SPSS 1990).

Multiple regression analysis attempts to determine the functional relationship between a single metric dependence variable (criterion) and a number of independent (explanatory) variables (Jain et al. 1982). Multiple regression is the appropriate method of analysis when the researcher has a single dependent variable which is presumed to be a function of other independent variables. Usually, the dependent variable is predicted or explained by a group of independent variables. Aaker & Day (1986) have suggested two different concepts of independent variable on the basis of the study goal. Firstly, the independent variable (explanatory) sometimes are called the predictor variable when prediction is the goal. They help to predict the value of dependent variable (criterion). Secondly, they are called explanatory variables because they explain variation in the dependent variable. When constructing the model, the analyst must include all relevant variables. If an important variable is omitted, the power of the model is reduced.
The construct of a regression model usually starts with the specification of the dependent variable and the independent variable or variable.

\[ Y = a + b_1X_1 + b_2X_2 \ldots + b_nX_n \]

Where:

- \( Y \) = the estimated value of the criterion variable
- \( a \) = constant derived from the analysis
- \( b_1 \) = coefficient associated with the predictor variable
- \( X_1 \) = predictor variable that influence the criterion variable

(Tull & Hawkins 1990).

In multiple regression analysis the relationship is assumed to be linear and additive. However, these are important assumptions. Linearity is the assumption that for each independent variable, the amount of change in the mean value of the dependent variable associated with a unit increase in the independent variable "holding all other independent variables constant" is regardless of the level of independent variable. While, additivity is the assumption that for each independent variable, the amount of change is the expected value of the dependent variable associated with a unit increase in the independent variable "holding all other independent variables constant" is the same regardless of values of the other independent variables in the regression equation (Berry and Feldman 1985).

When regression analysis is used to gain understanding of the other relationship between variables, the primary question is "which of the independent variable has the greatest influence upon the dependent variable?". This can be answered by obtaining the partial regression coefficients; the beta coefficient, which measures the degree of association between each independent variable (when all the independent variables are expressed in the standardized form) and the dependent variable. Since the Beta coefficients can be compared with each other in order to evaluate the relative effect of predictor
variables, the larger the Beta coefficient, the stronger the impact of that variable upon the criterion variable. In addition, the Beta weight enables the analyst to see how well a set of explanatory variables explain the criterion variable, and to determine the most influential explanatory variables.

The simple $R^2$ (the coefficient of multiple determination) through which one can measure the proportion of the variation in the dependent variable, tends to overestimate the population value of $R^2$. Therefore, adjusted $R^2$ attempts to correct the optimistic bias of the simple $R^2$.

Adjusted $R^2$ does not necessarily increase as additional variables are added to an equation and is the preferred measure of goodness of fit because it is not subject to the inflationary bias of unadjusted $R^2$.

In Summary, Multiple regression is often used to gain an understanding of the relationship between variable by:

1. Finding a function or formula by which one can estimate the value of the criterion variable from the predictor variable (Green & Tull 1978).

2. Determining which of the independent variables has the greatest influence upon the dependent variable (Kinnear and Taylor 1991).

6.2.2.1 Caution in the Use of Multiple Regression

The use of the multiple regression analysis is not without its problems. One of the most common problems in applied regression analysis is the multicollinearity. Multicollinearity refers to the situation in which some, or all of the independent variables are very highly correlated. In other words, when independent variables are related to each other and not truly independent of each other, multicollinearity is said to exist. Such correlation between the
explanatory variables in the regression equation makes the identification of structural relationships difficult or impossible. Berry and Feldman (1985) distinguished between two forms of multicollinearity. First, is perfect collinearity in which some independent variables regressed against the other independent variables in the model yield of an $R^2$ of precisely 1.00. This arises from very small data sets (i.e., small samples). The second is less extreme multicollinearity in which the independent variables in a regression equation are intercorrelated but not perfectly. The study of multicollinearity in data analysis evolves around two major problems: (1) how it can be deleted, and (2) what can be done about it. These problems are particular to marketing research where one often faces the dilemma of needing a number of variables to achieve accuracy of explanatory variables (Green & Tull 1978).

Multicollinearity can be dealt with by different approaches. Tull and Hawkins (1990) and Hair et al. (1984) suggested several ways for dealing with such situations. First, it can be ignored, particularly when multicollinearity may be prominent in only a subset of the explanatory variables and when this subset does not account for a large proportion of the variance in the data. The second approach, is to omit one or more of the highly correlated predictor variables. This one is recommended when two variables are clearly measuring the same thing. Thirdly, the correlated variables can be combined or otherwise transformed to produce unrelated variables. Finally, the correlated explanatory variables can be summarized in a set of explanatory factors using factor analysis. Furthermore, Kinnear and Taylor (1991) add that another way to avoid multicollinearity is by increasing the sample size.
In this research, the use of the principal components analysis technique was the only possible way to overcome the potential problem of multicollinearity.

6.2.2.2 Use of Regression Analysis in this Study

The regression analysis techniques (stepwise regression method) was preferred here, since it fulfils the requirements of the study's objectives (3, 4, and 5). The primary purposes behind using this technique are:

(1) To find out statistically whether there is a significant relationship between the two set of environmental dimension measures (internal and external) and the dependent variable level of exporting, taken separately or together.

(2) To discover whether the addition of the external environmental dimension measures to the internal environmental dimension measures would produce a better explanation for the dependent variable level of exporting.

(3) To conclude whether these explanatory variables (taken together) are strongly relevant to the level of exporting.

(4) To determine the most important independent variables explaining the variation of the dependent variable.

6.2.3 Simple Correlation Coefficient

The Pearson correlation coefficient is an appropriate statistical method for measuring the degree of association between variables that are interval or ratio scaled (Parasuraman 1986). The correlation coefficient is the standard measure of the linear relationship between two variables and has the following properties:

(i) It is pure number and independent of the units of measurement.
(ii) Its absolute value varies between zero when the variables have no linear relationship, and one, when each variable is perfectly predicted by the other. The absolute value thus gives the degree of relationship.

(iii) Its sign indicates the direction of the relationship. A positive sign indicated a tendency for high values of one of the variables to occur with high values of the other variable. A negative sign indicates a tendency for the high value of one variable to be associated with low value of the other. Reversing the direction of measurement of one of the variables will produce a coefficient of the same absolute value but of the opposite sign. A coefficient of equal value but opposite sign (e.g., .50 or -.50) thus indicates an equally strong linear relationship but in the opposite direction (Cohen & Cohen 1975).

The primary purposes behind the use of this technique in the present study are:

(1) To identify the strength and the direction of the relationship between each explanatory independent variable (taken as a factor or as a specific variable) and the dependent variable level of exporting. 

(2) To find out whether there is a statistical significant association between the independent variables and the level of level of exporting, taken together or separately.

6.2.4 Discriminant Function Analysis

Discriminant analysis is a multivariate technique whose end purpose generally is to provide a procedure for classifying individual observation into one of a set of groups or population (Jackson 1983). Simply stated, the primary objective of DA is to predict an entity's
likelihood of belonging to a particular class or group bases on several predictor variables (Sheth 1971).

Classification is achieved through a series of classification functions. Fisher (1936) was the first to suggest that classification should be based on a linear combination of discriminating variables. Fisher proposed using a linear combination which maximised group differences whilst minimising within the groups (Klecka 1980). The linear discriminant function can be expressed as follows:

\[ Z = W_1V_1 + W_2V_2 + W_3V_3 \ldots \ldots + W_nV_n \]

Where:

\[ Z \]  the discriminant score
\[ W \]  the discriminant weights
\[ V \]  the predictor variables

DFA combines those predictor variables that contribute to the discrimination of the "a prior" groupings. The discriminant weights \( W \) are assigned according to the discriminating power of the predictor variables (Hair et al., 1979). Once the predictor variables are selected and the discriminate weights are assigned, they are multiplied together and added as seen above, the sum of which is referred to as the discriminant score of \( Z \). Each individual in the analysis is then classified according to where its \( Z \) score is in relation to the single "cutting score", which is the \( Z \) value used to classify an individual into a group. Those individuals whose \( Z \) score are greater than the "cutting" score are classified in group (1), while those with a \( Z \) score less than the "cutting" score are placed in group (2).

6.2.4.1 The Applications of DFA

The use of DFA procedure in marketing research has proved most beneficial for the following purposes:
(1) developing a predictive model to classify individuals into distinguishing groups;

(2) detecting relationships between predictor variable and group membership;

(3) "profiling" characteristics of groups which are most dominant in terms of discrimination, and

(4) identifying the most important variables which differentiate best among groups (Crask et al. 1977).

6.2.4.2 DFA Date Input / Output

Discriminant analysis is mostly used to classify and to make predictions in situations where the criterion variable is in categorical form (e.g., exporters vs. non-exporters) and the predictor variable appears in a metric form (interval or ratio).

By using the SPSSX discriminant function analysis of two groups various statistics can be obtained. The key DFA output can be summarized as follows:

(1) Standardised discriminant function coefficients: These coefficients reflect the relative ability of each predictor variable to discriminate (discrimination power) between groups where the other predictors are held constant (Aaker and Day 1986). The absolute magnitude of the standardized discrimination function coefficient (which are similar to the B weight in multiple regression analysis) is used as an indication of the relative importance of a predictor variable (Tabachnick and Fidell 1983). The larger the discriminate coefficients, the more important the variable as a discrimination.

(2) Eigenvalue and canonical correlation: While eigenvalue indicates the discriminate power of the discriminant function, canonical correlation provides the degree of association between
discriminant function scores and group membership (Tabachnick and Fidell 1983).

(3) Statistical significance: All DFA programmes provide automatically the significant level of the discriminant function which has been developed. A chi - Square value with its degree of freedom and its level of significance is available in the SPSSX discriminate programmes. Moreover, the SPSSX programme of DFA automatically discontinue at or beyond the 0.05 level (Hair et al. 1987). Univariate F - ratio for each predictor variable is also provided, but only with the stepwise method which is employed in this research.

(4) Classification or confusion matrix: This matrix helps visualise exactly how accurate the discriminate function "predicted" group memberships. It provides sufficient information for classification of the individual into their appropriate groups. The most important factor to be considered in the classification matrix is the overall predictive accuracy of the discriminant function.

(5) Group means: The group means is considered very useful in interpreting how a predictor variable discriminates between groups. For example, if predictor variables were found to discriminate between group (a) and group (b), it would be worthwhile to compare the mean of this predictor variable for group (a) with its counterpart mean for group (b).

(6) All - groups histograms of the discriminate scores: The discriminant function scores for each group (1 and 2) are plotted in a histogram. The purpose of this histogram is to show how much two or more groups overlap and to examine the distribution of the discriminant score.
6.2.4.3 Use of DFA in this Study

Multiple discriminate analysis was considered to be the most appropriate statistical technique for accomplishing the study's objectives (6, 7 and 8), as it fulfils the following requirements:

1. The ability to determine whether or not a statistically significant difference exists between the two groups (i.e., exporters and non-exporters) in terms of their environmental measures.
2. The ability to predict group membership of firms on the basis of the internal and external environmental measures, taken together and separately.
3. The ability to identify the degree of association between exporters and non-exporters (i.e., export behaviour) and their environmental measures, (i.e., internal and external).
4. The ability to identify those independent variables which account for most of the differences between groups.
5. To discover whether the addition of the external environmental measure to the internal environmental measure might improve the prediction of group membership.

6.3 The Statistical Methods Used for Testing Research Hypotheses

There are alternative statistical tests available for any given research design, and it is necessary to use some rationale for selecting among them. In hypothesis testing, we must state the hypothesized value of population parameters before we begin sampling. The assumption we wish to test is the null hypothesis "HO".

A statistical test is good if it has a small probability of rejecting (HO) when it is true, but has greater probability of rejecting (HO) when it is false. If our sample results fail to support
the null hypothesis, we must conclude that something else is true. In other word, in applying a statistical test, the researcher must choose between accepting or rejecting the null hypothesis (HO). If (HO) is rejected, then he tends to use this as evidence in favour of (HI) (Siegel 1956).

Siegel (1956) suggests that there are two major considerations in choosing a statistical test. Firstly, the researcher must consider the manner in which the sample was drawn and the nature of its population. Secondly, he must consider the kind of scale of measurement (i.e., nominal, ordinal, interval or ratio) which was employed in the definition of the variables involved in the study. Luck and Rubin (1987) added another consideration which must be taken into account when deciding on the appropriate statistical test, such as, (1) how many samples are involved in the problem? "one, two or many (k) samples" (2) are the samples independent or related to each other.

In this study, four different statistical test representing parametric and non-parametric statistical methods were used to test the research hypotheses (i.e., F-test, T-test, Chi-square test, and McNemar test). Table (6.1) illustrates the research hypotheses and the relevant tests.

6.3.1 T-test

The T-test is a parametric statistical test. It is employed for testing hypotheses (H01, H04, H05, and H011). This statistical test is provided by the stepwise regression analysis computer programme. It is also used to measure the significance of the relationships between each independent variable (the output of principle component analysis), and the level of exporting. Furthermore, the T-test was employed to test the significant difference between the two groups
means (i.e., exporters and non-exporters) in terms of variables constituting each factor (the factors which underlie each major construct of the firm's internal and external environmental dimensions), taken separately.

6.3.2 Univariate F-Test

The SPSSX statistical package provided the result of the F-test with the results of some of the statistical techniques (e.g., DFA discriminant function and RA regression analysis). In this research the F-test was used to test the significance of regression equations, and to measure the degree of significance of the discriminating power for each predictor variable in the analysis, taken separately.

6.3.3 The Chi-Square Test

Chi-square test is employed for testing research hypotheses H06 and H07 (Table 6.2). The command DISCRIMINAT, in the SPSSX computer programme, routinely prints the chi-square value, the degree of freedom, and the significant level.

6.3.4 The McNemar Test

The McNemar test was used for testing research hypothesis number (H010). We are seeking the significant improvement (or changes) in the classification, and variation between the two groups in the analysis before and after the addition of the external environmental measure to the internal environmental measure. Therefore, the McNemar test for the significance of change is appropriate (Cohen and Holliday 1982).

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To test the significance of any observed change by this method, one can set up a fourfold table of frequencies to represent the first and second sets of response from the same individuals. The general features of such a table are pointed out in Table (6.1), in which (+) and (−) are used to signify different responses. In the McNemar test, the research is often interested only in two cells which show change between the first and second treatment. The sampling distribution associated with this test is Chi-square distribution (Siegel 1956).

Table (6.1)
Fourfold Table for Use in Testing the Significance of Change

<table>
<thead>
<tr>
<th></th>
<th>−</th>
<th>+</th>
</tr>
</thead>
<tbody>
<tr>
<td>−</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

After

Before
## Table (6.2)
The Research Hypotheses and Their Relevant Statistical Tests

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Statistical Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>HO(1): There is no significant relationship between the two environmental measures (i.e., internal and external) and the criterion variable level of exporting, taken separately.</td>
<td>T - Test</td>
</tr>
<tr>
<td>HO(2): There is no significant relationship between the external environmental measures and the dependent variable level of exporting, taken together.</td>
<td>F - Test</td>
</tr>
<tr>
<td>HO(3): There is no significant relationship between the internal environmental measures and the dependent variable level of exporting, taken together.</td>
<td>F - Test</td>
</tr>
<tr>
<td>HO(4): There is no significant relationship between each independent factor (the output of the principal components analysis) and the criterion variable level of exporting, taken separately.</td>
<td>T - Test</td>
</tr>
<tr>
<td>HO(5): There is no significant relationship between the explanatory independent variables which comprise each factor and the dependent variable level of exporting, taken separately.</td>
<td>T - Test</td>
</tr>
<tr>
<td>HO(6): There is no significant difference between the two groups (i.e., exporters and non-exporters) according to their internal environmental measure, taken together.</td>
<td>Chi - square &amp; F - Test</td>
</tr>
<tr>
<td>HO(7): There is no significant difference between the two groups (i.e., exporters and non-exporters) according to their external environmental measure, taken together.</td>
<td>Chi - square &amp; F - Test</td>
</tr>
<tr>
<td>HO(8): There is no significant difference (variation) between the two segments (i.e., exporters and non-exporters) in terms of their internal environmental measures, taken separately.</td>
<td>F - Test</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>Statistical Test</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td><strong>H0(9):</strong> There is no significant difference (variation) between the two segments (i.e., exporters and non-exporters) in according to their external environmental measures, taken separately.</td>
<td>F - Test</td>
</tr>
<tr>
<td><strong>H0(10):</strong> There is no significant improvement in the discrimination between the two groups (i.e., exporters and non-exporters), after the addition of the external environmental measures to its counterpart the internal environmental measures.</td>
<td>McNemar Test</td>
</tr>
<tr>
<td><strong>H0(11):</strong> There is no significant differentiation between the two segments (i.e., exporters and non-exporters) according to the independent variables which comprise each factor, taken separately.</td>
<td>T - Test</td>
</tr>
</tbody>
</table>
Summary

Based on the research objectives and hypotheses, several statistical techniques were preferred to analyse the data and to achieve the research objectives, in addition to testing the research hypotheses.

The statistical techniques chosen varied from the univariate, the bivariate and the multivariate, depending on the type of data and the number of variables. The univariate statistical methods used in this research was the chi-square test. The bivariate techniques used were the T-test, F-test, the Pearson correlation coefficients, and the McNemar test. With regard to the multivariate techniques, the following were employed: the factor analysis, the multiple regression analysis, and the discriminant function analysis.

This Chapter includes a brief description of the alternative statistical techniques which had been used in this study, the basis for choosing the appropriate statistical techniques, and the reasons for using each technique in this research.
CHAPTER SEVEN

THE FACTOR ANALYSIS FINDINGS
(THE MAIN PATTERN OF FACTORS THAT UNDERLIE EACH
CONSTRUCT OF BOTH ENVIRONMENTAL DIMENSIONS)

Introduction

7.1 The Findings of the Factor Analysis

7.2 The Interpretation of the Final Factor Analysis

7.2.1 The Constructs of the Firm's Internal Environmental Dimension

7.2.1.1 The Main Factors That Underlie the Managerial Goals and Aspiration Level

7.2.1.2 The Main Factors That Underlie the Management's Expectations

7.2.1.3 The Main Factors That Underlie the Firm's Comparative Advantages

7.2.1.4 The Main Factors That Underlie the Firm's Commitment to Export Activity

7.2.1.5 The Main Factors That Underlie the Characteristics of the Decision-Makers

7.2.2 The Constructs of the Firm's External Environmental Dimension

7.2.2.1 The Main Factors That Underlie the Firm's Legal-Political Environment

7.2.2.2 The Main Factors That Underlie the Firm's Economic and Commercial Infrastructural Environment

Summary
CHAPTER SEVEN

THE FACTOR ANALYSIS FINDINGS
(THE MAIN PATTERN OF FACTORS THAT UNDERLIE EACH CONSTRUCT OF BOTH ENVIRONMENTAL DIMENSIONS)

Introduction

This chapter presents the main findings of the principle component analysis. The main purpose behind the use of this techniques here is to reduce the large number of variables that underlie each construct of both dimensions (i.e., internal and external environments), into orthogonal indices, for further analysis by the regression analysis and discriminant analysis.

Furthermore, by employing the principal component analysis techniques, it may be possible to explore the patterns of factors that underlie each major construct. It was considered an appropriate method to overcome the potential problems of multicollinearity among the variables that pertain to each construct (e.g., Tull and Hawkins 1990).

7.1 The Findings of the Factor Analysis

The results of the principal components analysis indicate that 26 factors can be extracted from the seven major constructs of both environmental dimensions (internal and external). Sixteen 16 factors are derived from the five constructs of the internal environmental dimension and ten factors are extracted from the two constructs of the external environmental dimension.

Table (7.1) presents the number of factors underlying each construct of both dimensions.
Table (7.1)

The number of factors that underlie each construct of the internal and external dimension

<table>
<thead>
<tr>
<th>Name of Dimension</th>
<th>Name of Construct</th>
<th>Number of Variables</th>
<th>Number of Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Internal</td>
<td>1. Managerial aspirations</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2. Management’s expectations</td>
<td>27</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>3. Comparative advantages</td>
<td>16</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>4. Commitment to export</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>5. The decision - maker’s</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>characteristics.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. External</td>
<td>1. Economic &amp; commercial</td>
<td>22</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>infrastructural envir.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Political-legal envir.</td>
<td>24</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>111</td>
<td>26</td>
</tr>
</tbody>
</table>

7.2 The Interpretation of the Final Factor Analysis

The main patterns of factors underlying each construct of the internal and external dimension and their interpretations* are presented under the following sections:

7.2.1 The Constructs of the Firm’s Internal Environmental Dimension

The firm’s internal dimension consists of five major constructs (for more details see Chapter 4). These constructs are: (1) Managerial aspirations level, (2) Management’s expectations, (3) Comparative advantages, (4) Commitment to export marketing activity, and the (5) Socio-demographic characteristics of the decision-maker. The interpretations of the results of the principal components analysis are presented for each of these constructs, as follows:

* The varimax rotation version with Kaiser normalization was used to produce more interpretable factors. The eigenvalue (>1) criteria was used in order to determine the number of factors.
7.2.1.1 The Main Factors That Underlie the Managerial Goals and Aspiration Level

The managerial aspiration level is one of the major constructs of the firm's internal environmental dimension. It is used to measure the importance of export goals to the firm. The results of the principal component analysis (Table 7.2) indicate that only one factor can be extracted from this construct. This factor is composed of six managerial aspiration attributes; improvement of the firm's market position, increasing the firm's overall profit, securing steady growth, developing market strategies, reducing the cost of production and increasing the sales volume of the exported product. Therefore, this factor, which accounts for 54.5% of the total variance, could be reasonably labelled as the "managerial aspiration" factor.

Table (7.2)
The Main Factors Underlying The Construct of the Managerial Aspiration Level

<table>
<thead>
<tr>
<th>Variable</th>
<th>Attributes</th>
<th>Factor Loading</th>
<th>Communality*</th>
</tr>
</thead>
<tbody>
<tr>
<td>V31</td>
<td>Improving the firm's market position</td>
<td>.65798</td>
<td>.43294</td>
</tr>
<tr>
<td>V32</td>
<td>Increasing the overall profit</td>
<td>.83745</td>
<td>.70132</td>
</tr>
<tr>
<td>V33</td>
<td>Securing steady growth</td>
<td>.45634</td>
<td>.20824</td>
</tr>
<tr>
<td>V34</td>
<td>Developing market strategies</td>
<td>.78564</td>
<td>.61722</td>
</tr>
<tr>
<td>V35</td>
<td>Reducing the cost of production</td>
<td>.82464</td>
<td>.68002</td>
</tr>
<tr>
<td>V36</td>
<td>Increasing the sales volume</td>
<td>.79333</td>
<td>.62937</td>
</tr>
</tbody>
</table>

Variance accounted for:

Factor (1)  Eigenvalue* 3.26912  Percentage of Variance 54.5

* Communality: The amount of variance an original variable shares with all other variables included in the analysis.
* Eigenvalue: It represents the amount of variance accounted for by a factor.
7.2.1.2 The Main Factors That Underlie the Management's Expectations

Six factors were extracted from 27 variables that pertain to this component (Table 7.3). These factors together explain 53.1% of the total variance. The first factor is composed of eight variables, namely; difficulty in recruiting sales representatives abroad, difficulty in pricing our products abroad, difficulty in locating potential markets, insufficient knowledge of communicating with overseas customers, lack of personal expertise in exporting, size of production, inability to establish a distribution system and the difficulty of maintaining control over foreign middlemen. These variables together represent exporting operational obstacles. This factor, which accounts for 20.6% of the variance, is labelled as a "export operational obstacles" factor.

The second factor can be identified as a "perceived risk" factor, since it is composed of the five attributes of risk. Those attributes are; risk of production, political risk, risk of transportation, foreign currency exchange risk, and the risk of collecting money (non-payment risk). This factor accounts for 10.8% of the variance.

The third factor consists of five variables, namely; making greater profit, using the firm's excess capacity, increasing the firm's annual sales, increasing the growth of the firm, and increasing the security of the firm. This factor, which explains 7.6% of the variance, could be reasonably called the "export objectives" factor.

The fourth factor can be identified as an "export benefit" factor. It includes four variables; overcoming instability demand, better opportunities in foreign markets, preventing dependency in the domestic market, and benefiting from government export assistance. This factor accounts for 5.2% of the variance.
Table (7.3)
The Main Factors Underlying the Construct of Management's Expectations

<table>
<thead>
<tr>
<th>Variable</th>
<th>Attributes</th>
<th>Factor Loading</th>
<th>Communality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Factor (1) &quot;Operational obstacles&quot;</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V67</td>
<td>Difficulty of obtaining sales representatives</td>
<td>.72582</td>
<td>.55485</td>
</tr>
<tr>
<td>V68</td>
<td>Difficulty of pricing of products abroad</td>
<td>.70502</td>
<td>.55571</td>
</tr>
<tr>
<td>V65</td>
<td>Lack of knowledge in communicating potential markets</td>
<td>.69625</td>
<td>.54659</td>
</tr>
<tr>
<td>V70</td>
<td>Difficulty of locating potential markets</td>
<td>.67671</td>
<td>.51700</td>
</tr>
<tr>
<td>V66</td>
<td>Lack of Personal expertise</td>
<td>.67640</td>
<td>.50711</td>
</tr>
<tr>
<td>V75</td>
<td>Size of production</td>
<td>.65718</td>
<td>.55504</td>
</tr>
<tr>
<td>V69</td>
<td>Inability to establish a distribution system</td>
<td>.63049</td>
<td>.46921</td>
</tr>
<tr>
<td>V71</td>
<td>Difficulty of maintaining control over foreign middlemen</td>
<td>.60966</td>
<td>.57846</td>
</tr>
<tr>
<td></td>
<td><strong>Factor (2) &quot;Perceived risk&quot;</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V93</td>
<td>Risk of production</td>
<td>.82143</td>
<td>.70847</td>
</tr>
<tr>
<td>V98</td>
<td>Political risk</td>
<td>.80504</td>
<td>.67131</td>
</tr>
<tr>
<td>V88</td>
<td>Risk of transportation</td>
<td>.77948</td>
<td>.66160</td>
</tr>
<tr>
<td>V78</td>
<td>Foreign exchange risk</td>
<td>.74013</td>
<td>.59280</td>
</tr>
<tr>
<td>V77</td>
<td>Risk of collecting money</td>
<td>.59997</td>
<td>.40115</td>
</tr>
<tr>
<td></td>
<td><strong>Factor (3) &quot;Export objectives&quot;</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V27</td>
<td>Making greater profit</td>
<td>.72570</td>
<td>.55066</td>
</tr>
<tr>
<td>V26</td>
<td>Using the firm's excess capacity</td>
<td>.67311</td>
<td>.51661</td>
</tr>
<tr>
<td>V30</td>
<td>Increasing the annual sales</td>
<td>.62112</td>
<td>.52371</td>
</tr>
<tr>
<td>V28</td>
<td>Increasing the security</td>
<td>.54622</td>
<td>.47797</td>
</tr>
<tr>
<td>V21</td>
<td>Increasing the growth</td>
<td>.51989</td>
<td>.35933</td>
</tr>
<tr>
<td></td>
<td><strong>Factor (4) &quot;Export benefits&quot;</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V16</td>
<td>Overcoming instability demand</td>
<td>.70896</td>
<td>.55942</td>
</tr>
<tr>
<td>V29</td>
<td>Having better opportunities in the foreign markets</td>
<td>.58169</td>
<td>.53471</td>
</tr>
<tr>
<td>V20</td>
<td>Benefiting from the government export assistances</td>
<td>.50393</td>
<td>.32239</td>
</tr>
<tr>
<td>V22</td>
<td>Preventing dependency in the domestic market</td>
<td>.47680</td>
<td>.31179</td>
</tr>
</tbody>
</table>
Variable | Attributes | Factor Loading | Communality
--- | --- | --- | ---
V73 | Inability to provide follow up services | .74918 | .58358
V74 | Inability to provide credit facilities | .64660 | .58933
V72 | Difficulty of collecting money | .47556 | .42228

**Factor (5)**  
"Export barriers"

**Variance accounted for:**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Eigenvalue</th>
<th>Percentage of Variance</th>
<th>Cumulative percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.57495</td>
<td>20.6</td>
<td>20.6</td>
</tr>
<tr>
<td>2</td>
<td>2.91159</td>
<td>10.8</td>
<td>31.4</td>
</tr>
<tr>
<td>3</td>
<td>2.04169</td>
<td>7.6</td>
<td>39.0</td>
</tr>
<tr>
<td>4</td>
<td>1.39512</td>
<td>5.2</td>
<td>44.2</td>
</tr>
<tr>
<td>5</td>
<td>1.27684</td>
<td>4.7</td>
<td>48.9</td>
</tr>
<tr>
<td>6</td>
<td>1.12637</td>
<td>4.2</td>
<td>53.1</td>
</tr>
</tbody>
</table>
The fifth factor consists of three variables. These variables go together to form an "export barriers" factor. This factor includes the following attributes; the firm's ability to provide follow up services, the firm's ability to provide credit facilities and the difficulty of collecting money on export sales. This factor accounts for 4.7% of the variance.

Finally, the sixth factor is composed of two variables, namely, overcoming competition in the domestic market and keeping pace with local competitors. This factor which explains only 4.2% of the variance might be identified as the "competitive situation" factor. It represents the benefits which come from the competitive advantage in the domestic market as a result of exporting.

7.2.1.3 The Main Factors That Underlie the Comparative Advantages

The results of the factor analysis showed that the 16 advantages attributes can be clustered into five significant factors. The combination of these factors account for 62.6% of the total variance (Table 7.4).

Factor 1, which accounts for 27.6% of the variance, is composed of five comparative attributes. Those attributes are; ability of the firm to hire trained persons, ability of the firm to offer discount prices to overseas customers, strength of the firm's management, proximity of the firm to the markets, and the firm's technological standard level. These variables appear to go together to produce the level of the manager's confidence in their competitive strengths in the export markets. Thus, this Factor can be designated as the "competitive strengths" factor.

Factor 2 can be identified as a "size of the firm" factor. This factor consists of three variables which are designed to measure the
Table (7.4)

The Main Factors Underlying the Construct of the Firm's Comparative Advantages

<table>
<thead>
<tr>
<th>Variable</th>
<th>Attributes</th>
<th>Factor Loading</th>
<th>Communality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Factor (1) &quot;Competitive strengths&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V54</td>
<td>Ability to hire trained persons</td>
<td>.75289</td>
<td>.58164</td>
</tr>
<tr>
<td>V53</td>
<td>Ability to offer price discounts</td>
<td>.68213</td>
<td>.61068</td>
</tr>
<tr>
<td>V24</td>
<td>Strength of Management</td>
<td>.60388</td>
<td>.59154</td>
</tr>
<tr>
<td>V18</td>
<td>Proximity to foreign market</td>
<td>.59088</td>
<td>.55975</td>
</tr>
<tr>
<td>V49</td>
<td>Firm's technological standard level</td>
<td>.52492</td>
<td>.44200</td>
</tr>
<tr>
<td></td>
<td>Factor (2) &quot;Size of the firm&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V104</td>
<td>Number of employees</td>
<td>.84455</td>
<td>.74778</td>
</tr>
<tr>
<td>V106</td>
<td>Total of the capital assets</td>
<td>.84357</td>
<td>.75555</td>
</tr>
<tr>
<td>V108</td>
<td>Total sales volume</td>
<td>.80045</td>
<td>.68640</td>
</tr>
<tr>
<td></td>
<td>Factor (3) &quot;Technological strengths&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V50</td>
<td>The superior product equipment</td>
<td>.84455</td>
<td>.74778</td>
</tr>
<tr>
<td>V51</td>
<td>The superior production method</td>
<td>.83896</td>
<td>.73430</td>
</tr>
<tr>
<td>V55</td>
<td>The ability to modify product policies</td>
<td>.50067</td>
<td>.50233</td>
</tr>
<tr>
<td></td>
<td>Factor (4) &quot;Business experience&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V103</td>
<td>Number of years in the business</td>
<td>.86823</td>
<td>.78440</td>
</tr>
<tr>
<td>V107</td>
<td>Number of years in exporting</td>
<td>.79312</td>
<td>.77135</td>
</tr>
<tr>
<td></td>
<td>Factor (5) &quot;Product characteristics&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V52</td>
<td>Product quality</td>
<td>.71028</td>
<td>.56959</td>
</tr>
<tr>
<td>V25</td>
<td>Product competitive price</td>
<td>.67178</td>
<td>.51663</td>
</tr>
<tr>
<td>V17</td>
<td>Uniqueness of product</td>
<td>.46531</td>
<td>.43628</td>
</tr>
</tbody>
</table>

Variance accounted for:

<table>
<thead>
<tr>
<th>Factor</th>
<th>Eigenvalue</th>
<th>Percentage of Variances</th>
<th>Cumulative percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.41075</td>
<td>27.6</td>
<td>27.6</td>
</tr>
<tr>
<td>2</td>
<td>2.15383</td>
<td>13.5</td>
<td>41.0</td>
</tr>
<tr>
<td>3</td>
<td>1.27473</td>
<td>8.0</td>
<td>49.0</td>
</tr>
<tr>
<td>4</td>
<td>1.16543</td>
<td>7.3</td>
<td>56.3</td>
</tr>
<tr>
<td>5</td>
<td>1.01594</td>
<td>6.3</td>
<td>62.6</td>
</tr>
</tbody>
</table>

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size. These variables are; number of employees, total of capital assets that are held by the firm and the total sales volume. This factor, which accounts for 13.5% of the variance, may be labelled the "size of the firm" factor.

Factor 3 can be labelled as the "technological strengths" factor. It is composed of three attributes, they are; superiority of the firm's production equipment, superiority of the firm's production method, and the firm's ability to modify its products policies. This factor explains 8.0% of the variance.

Factor 4 consists of two types of business experience; the number of years in which each firm has been in business, and the number of years in which each firm has been exporting. This factor, which accounts for 7.3%, could be reasonably called the "business experience" factor.

Finally, factor 5 can be identified as the "product characteristics" factor, since it is composed of three product attributes. Those attributes are; product quality, uniqueness of the product, and the product competitive price. This factor explains 6.3% of the variance.

7.2.1.4 The Main Factors that Underlie the Firm's Commitment to Export Activity

The examination of Table (7.5) reveals that the 12 commitment variables can be combined into 2 significant factors. The combination of those factors accounts for 56.0% of the total variance. These two factors are known as the management's commitment to export marketing activities, and the management's willingness to change, or modify export marketing policies.

The first factor is composed of the following attributes; to promote our product to overseas customers, to plan to get into foreign
Table (7.5)
The Main Factors Underlying the Construct of the Firm's Commitments to Export activity

<table>
<thead>
<tr>
<th>Variable</th>
<th>Attributes</th>
<th>Factor Loading</th>
<th>Communality</th>
</tr>
</thead>
<tbody>
<tr>
<td>V41</td>
<td>We promote our products to overseas customers</td>
<td>.76365</td>
<td>.65095</td>
</tr>
<tr>
<td>V40</td>
<td>We participate in international trade fairs</td>
<td>.71468</td>
<td>.54528</td>
</tr>
<tr>
<td>V42</td>
<td>We plan to get into foreign market</td>
<td>.70870</td>
<td>.62094</td>
</tr>
<tr>
<td>V43</td>
<td>We send sales representatives to foreign markets</td>
<td>.69825</td>
<td>.57849</td>
</tr>
<tr>
<td>V44</td>
<td>We have a formal policy for handling export activities</td>
<td>.64790</td>
<td>.43372</td>
</tr>
<tr>
<td>V38</td>
<td>We consistently seek export opportunities</td>
<td>.63883</td>
<td>.57693</td>
</tr>
<tr>
<td>V39</td>
<td>We carry out a systematic research of possibilities in exporting</td>
<td>.63795</td>
<td>.45806</td>
</tr>
<tr>
<td>V37</td>
<td>We use export research</td>
<td>.38442</td>
<td>.26528</td>
</tr>
</tbody>
</table>

Factor (1) "Commitment to export related activities"

Factor (2) "Willingness to change"

<table>
<thead>
<tr>
<th>Variable</th>
<th>Attributes</th>
<th>Factor Loading</th>
<th>Communality</th>
</tr>
</thead>
<tbody>
<tr>
<td>V45</td>
<td>Willingness to modify organisation and control systems</td>
<td>.85682</td>
<td>.78252</td>
</tr>
<tr>
<td>V47</td>
<td>Willingness to change pricing policies to foreign markets</td>
<td>.76207</td>
<td>.65492</td>
</tr>
<tr>
<td>V46</td>
<td>Willingness to adapt product policies to foreign markets</td>
<td>.75477</td>
<td>.59246</td>
</tr>
<tr>
<td>V48</td>
<td>Willingness to modify distribution policies to foreign markets</td>
<td>.67511</td>
<td>.56461</td>
</tr>
</tbody>
</table>

Variance accounted for:

<table>
<thead>
<tr>
<th>Factor</th>
<th>Eigenvalue</th>
<th>Percentage of Variances</th>
<th>Cumulative percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.50982</td>
<td>45.7</td>
<td>45.7</td>
</tr>
<tr>
<td>2</td>
<td>1.26367</td>
<td>10.2</td>
<td>56.0</td>
</tr>
</tbody>
</table>
markets, to send sales representatives to foreign markets, to participate in international trade fairs, to carry out a systematic research to explore the possibilities in exporting, to have a formal policy for handling various export marketing activities, and to use export research for our marketing decisions. These eight variables constitute the level of "commitment to export related activities" factor. This factor alone accounts for 45.7% of the variance.

Factor 2 reflects the management's willingness to change or modify their policies to meet the foreign market conditions. It is composed of four attributes; the willingness to modify their organisational and control system, to adapt their product policies, to change their pricing policies, and to modify their distribution policies. This factor, which accounts for 10.2% of the variance, can reasonably be designated as the "willingness to change" factor.

### 7.2.1.5 The Main Factors That Underlie the Characteristics of the Decision-Makers

Two significant factors were extracted which accounted for 74.5% of the total variance (Table 7.6). The first factor can be reasonably identified as the "education factor". It is composed of two attributes; proficiency in the English language, and level of education that each manager completes. This factor explains alone accounts for 44.7% of the variance.

The second factor consists of two types of demographic characteristics; age and experience. This factor, which accounts for 29.8% of the variance, can be identified as the "demographic characteristics" factor.
Table (7.6)
The Main Factors Underlying the Decision-Maker's Characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Attributes</th>
<th>Factor Loading</th>
<th>Communality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Factor (1) &quot;Education&quot;</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V120</td>
<td>Proficiency in a foreign language</td>
<td>.88883</td>
<td>.80766</td>
</tr>
<tr>
<td>V117</td>
<td>Level of education</td>
<td>.86839</td>
<td>.76294</td>
</tr>
<tr>
<td></td>
<td><strong>Factor (2) &quot;Demographic&quot;</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V115</td>
<td>Experience</td>
<td>.83713</td>
<td>.74975</td>
</tr>
<tr>
<td>V114</td>
<td>Age</td>
<td>.70527</td>
<td>.65894</td>
</tr>
</tbody>
</table>

Variance accounted for:

<table>
<thead>
<tr>
<th>Factor</th>
<th>Eigenvalue</th>
<th>Percentage of Variances</th>
<th>Cumulative percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.85909</td>
<td>44.7</td>
<td>44.7</td>
</tr>
<tr>
<td>2</td>
<td>1.46888</td>
<td>29.8</td>
<td>74.5</td>
</tr>
</tbody>
</table>
7.2.2 The Constructs of the Firm's External Environmental Dimension

The firm's external environmental dimension was outlined under two major constructs, namely: (1) Economic and commercial infrastructural environment and (2) Political - legal environment. The purpose of this section is to discuss the pattern of factors underlying each of these constructs.

7.2.2.1 The Main Factors That Underlie the Firm's Legal - Political Environment

The examination of Table (7.7) indicates that the 24 attributes of the legal - political construct can be combined into 4 significant factors. The combinations of those factors explain 51.7% of the total variance.

The first factor consists of nine types of export policies and assistance attributes. They include: duty - drawback system policy, temporary - entry system, trade agreement policy, managerial services provided by the Trade Centre (e.g., organising international trade fairs), foreign markets information services provided by the Chamber of Industry, the government's income tax rebate policy, the export discount programme offered by the Central Bank of Jordan, devaluation of the Jordanian Dinar, and facilities provided in the area of Free Trade Zones. These nine attributes go together to form the "government's export policies and assistance" factor. This factor accounts for 23.5% of the variance.

The second factor, which explains 14.2% of the variance, can be reasonably identified as the "awareness of the government's export policies and assistance" factor. It is composed of six attributes, they are; knowledge of the temporary entry system, awareness of the managerial services provided by the Trade Centre, awareness of information services provided by the Chamber of Industry, awareness of
### Table (7.7)
The Main Factors Underlying the Construct of the Political - Legal Environment

<table>
<thead>
<tr>
<th>Variable</th>
<th>Attributes</th>
<th>Factor Loading</th>
<th>Communality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Factor (1) &quot;Government's export policies and assistance&quot;</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Duty - drawback system</td>
<td>.76000</td>
<td>.64060</td>
</tr>
<tr>
<td>V3</td>
<td>Temporary - entry system</td>
<td>.72819</td>
<td>.59302</td>
</tr>
<tr>
<td>V8</td>
<td>Government's trade agreement policies</td>
<td>.72621</td>
<td>.58107</td>
</tr>
<tr>
<td>V1</td>
<td>Export credit discount programme offered by the Central Bank</td>
<td>.66653</td>
<td>.56565</td>
</tr>
<tr>
<td>V2</td>
<td>Managerial services provided by the Trade Centre</td>
<td>.63868</td>
<td>.58189</td>
</tr>
<tr>
<td>V5</td>
<td>Information services provided by the Chamber of Industry</td>
<td>.62857</td>
<td>.59734</td>
</tr>
<tr>
<td>V4</td>
<td>Government's income tax rebate policy</td>
<td>.62436</td>
<td>.48408</td>
</tr>
<tr>
<td>V9</td>
<td>Free Trade Zones facilities</td>
<td>.61116</td>
<td>.41957</td>
</tr>
<tr>
<td>V6</td>
<td>Devaluation of The Jordanian Dinar</td>
<td>.50254</td>
<td>.43660</td>
</tr>
<tr>
<td>V7</td>
<td>**Factor (2) &quot;Awareness of the government's export policies &amp; assistance&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V13</td>
<td>Awareness of the services provided by the Trade Centre</td>
<td>.73575</td>
<td>.58147</td>
</tr>
<tr>
<td>V12</td>
<td>Awareness of the export credit prog.</td>
<td>.72227</td>
<td>.64062</td>
</tr>
<tr>
<td>V14</td>
<td>Knowledge of the temporary - entry system</td>
<td>.72220</td>
<td>.68508</td>
</tr>
<tr>
<td>V11</td>
<td>Awareness of the duty - drawback entry system</td>
<td>.72131</td>
<td>.67664</td>
</tr>
<tr>
<td>V15</td>
<td>Awareness of the services provided by the Chamber of Industry</td>
<td>.64932</td>
<td>.62471</td>
</tr>
<tr>
<td>V10</td>
<td>Knowledge about the facilities in the area of Trade Zones.</td>
<td>.64345</td>
<td>.44337</td>
</tr>
<tr>
<td></td>
<td><strong>Factor (3) &quot;Government export facilities related problems&quot;</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V63</td>
<td>High duties imposed on spare parts required for production</td>
<td>.76560</td>
<td>.51319</td>
</tr>
<tr>
<td>V62</td>
<td>Lack of commercial - Attaches</td>
<td>.69325</td>
<td>.55849</td>
</tr>
<tr>
<td>V61</td>
<td>Complexity of the duty - drawback system</td>
<td>.61077</td>
<td>.51319</td>
</tr>
<tr>
<td>V59</td>
<td>Inadequate tax incentives</td>
<td>.63119</td>
<td>.55406</td>
</tr>
<tr>
<td>V60</td>
<td>The high cost of export documents</td>
<td>.61818</td>
<td>.49071</td>
</tr>
<tr>
<td>V80</td>
<td>The Central bank regulations in respect to the bank - guarantee requirements</td>
<td>.51663</td>
<td>.31647</td>
</tr>
<tr>
<td>Variable</td>
<td>Attributes</td>
<td>Factor Loading</td>
<td>Communality</td>
</tr>
<tr>
<td>----------</td>
<td>------------------------------------</td>
<td>----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>V57</td>
<td>The export licence procedures</td>
<td>0.79828</td>
<td>0.69765</td>
</tr>
<tr>
<td>V56</td>
<td>The customs export clearances</td>
<td>0.74183</td>
<td>0.59576</td>
</tr>
<tr>
<td>V58</td>
<td>The export inspection procedures</td>
<td>0.67065</td>
<td>0.57853</td>
</tr>
</tbody>
</table>

**Factor (4)** "Government export procedure related problems"

**Variance accounted for:**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Eigenvalue</th>
<th>Percentage of variance</th>
<th>Cumulative percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.41193</td>
<td>23.5</td>
<td>23.5</td>
</tr>
<tr>
<td>2</td>
<td>3.27364</td>
<td>14.2</td>
<td>37.8</td>
</tr>
<tr>
<td>3</td>
<td>2.08242</td>
<td>9.1</td>
<td>46.8</td>
</tr>
<tr>
<td>4.</td>
<td>1.11254</td>
<td>4.8</td>
<td>51.7</td>
</tr>
</tbody>
</table>

The export procedure and inspection procedures, high cost of export procedures could be identified as the "government export procedures related problems". The third factor explains 37.8% of the variance and the fourth factor explains 4.8% of the variance.
the export credit programme, awareness of the duty - drawback system facilities and the knowledge of the Trade Zone facilities.

Factor 3 and factor 4 are the government's export regulations, procedures and facilities related problems. The third factor consists of those types of regulations and assistances which go together to form the "government export facilities related problems" factor. This includes, high duties imposed on the spare parts, complexity of the duty - drawback system, inadequate tax incentives, high cost of export documents, lack of Commercial Attaches in the foreign markets to be exported to, and the bank - guarantee requirement. The fourth factor deals with export licence procedures, customs export clearance processes and the export product inspection procedures. These types of procedures could be identified as the "government export procedures related problems". The third factor explains 9.1% of the variance and the fourth factor explains 4.8% of the variance.

7.2.2.2 The Main Factors That Underlie the Firm's Economic and Commercial Infrastructural Environment

The findings of the factor analysis reveal that 6 significant factors accounting for 62.1% of the total variance can be extracted from the 22 economic - environment attributes (Table 7.8). These six factors may be called; the "foreign markets conditions", the "commercial facilities related problems", the "raw materials related problems", the "export costs", "physical distribution related problems" and the "domestic market conditions" factors. The attributes and weighting for each factor are as follows:

Factor 1, which accounts for 22.8% of the variance, is composed of five foreign market attributes. These attributes are; intensity of competition, foreign government restrictions, business practices in foreign markets, political instability and geographical distance. It
Table (7.8)
The Main Factors Underlying the Construct of the Economic and Commercial Infrastructural Environment

<table>
<thead>
<tr>
<th>Variable</th>
<th>Attributes</th>
<th>Factor Loading</th>
<th>Communality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&quot;Foreign markets conditions&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V96</td>
<td>The foreign government restrictions</td>
<td>.83935</td>
<td>.72427</td>
</tr>
<tr>
<td>V95</td>
<td>Intensity of competition</td>
<td>.82899</td>
<td>.71015</td>
</tr>
<tr>
<td>V98</td>
<td>Political instability</td>
<td>.81909</td>
<td>.69300</td>
</tr>
<tr>
<td>V94</td>
<td>Business practice in the foreign markets</td>
<td>.80735</td>
<td>.67763</td>
</tr>
<tr>
<td>V97</td>
<td>Geographical distance</td>
<td>.76942</td>
<td>.61390</td>
</tr>
<tr>
<td></td>
<td>&quot;Commercial facilities&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V86</td>
<td>Lack of effective trade companies</td>
<td>.82528</td>
<td>.74448</td>
</tr>
<tr>
<td>V64</td>
<td>Lack of information</td>
<td>.81090</td>
<td>.69194</td>
</tr>
<tr>
<td>V79</td>
<td>Lack of export credit guarantee against non-payment risk.</td>
<td>.72101</td>
<td>.54061</td>
</tr>
<tr>
<td>V76</td>
<td>Difficulty of access to banking facilities</td>
<td>.58798</td>
<td>.51061</td>
</tr>
<tr>
<td></td>
<td>&quot;Raw material problems&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V85</td>
<td>Difficulty of obtaining raw material from foreign markets</td>
<td>.83297</td>
<td>.73114</td>
</tr>
<tr>
<td>V84</td>
<td>Low quality of raw material in the domestic market</td>
<td>.82053</td>
<td>.71872</td>
</tr>
<tr>
<td>V83</td>
<td>Shortage of raw material needed in the domestic market</td>
<td>.80910</td>
<td>.69134</td>
</tr>
<tr>
<td>V92</td>
<td>High price of raw material</td>
<td>.36005</td>
<td>.37973</td>
</tr>
<tr>
<td></td>
<td>&quot;Export costs&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V90</td>
<td>Cost of communication</td>
<td>.82440</td>
<td>.69907</td>
</tr>
<tr>
<td>V89</td>
<td>Cost of labour skills</td>
<td>.78351</td>
<td>.63978</td>
</tr>
<tr>
<td>V91</td>
<td>Cost of warehouses</td>
<td>.65258</td>
<td>.52264</td>
</tr>
<tr>
<td>V101</td>
<td>Interest rate</td>
<td>.55907</td>
<td>.47390</td>
</tr>
<tr>
<td></td>
<td>&quot;Physical distribution&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V81</td>
<td>Shipping facilities</td>
<td>.82957</td>
<td>.72750</td>
</tr>
<tr>
<td>V82</td>
<td>Warehouse facilities</td>
<td>.71905</td>
<td>.65011</td>
</tr>
<tr>
<td>V87</td>
<td>Freight transportation</td>
<td>.40028</td>
<td>.34735</td>
</tr>
<tr>
<td>Variable</td>
<td>Attributes</td>
<td>Factor Loading</td>
<td>Communality</td>
</tr>
<tr>
<td>----------</td>
<td>------------</td>
<td>----------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Factor (6)</td>
<td>&quot;Domestic market conditions&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V99</td>
<td>Intense competition</td>
<td>.75436</td>
<td>.63036</td>
</tr>
<tr>
<td>V100</td>
<td>High domestic demand</td>
<td>.71210</td>
<td>.56802</td>
</tr>
</tbody>
</table>

Variance accounted for:

<table>
<thead>
<tr>
<th>Factor</th>
<th>Eigenvalue</th>
<th>Percentage of Variance</th>
<th>Cumulative percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.01812</td>
<td>22.8</td>
<td>22.8</td>
</tr>
<tr>
<td>2</td>
<td>3.05058</td>
<td>13.9</td>
<td>36.7</td>
</tr>
<tr>
<td>3</td>
<td>1.76621</td>
<td>8.0</td>
<td>44.7</td>
</tr>
<tr>
<td>4</td>
<td>1.65225</td>
<td>7.5</td>
<td>52.2</td>
</tr>
<tr>
<td>5</td>
<td>1.44972</td>
<td>5.2</td>
<td>57.4</td>
</tr>
<tr>
<td>6</td>
<td>1.60268</td>
<td>4.7</td>
<td>62.1</td>
</tr>
</tbody>
</table>
is clear these variables merge together to form the "foreign markets conditions" factor.

Factor 2 is likewise identified as the "commercial facilities related problems" factor. It is composed of four commercial attributes. These attributes are as follows; lack of information, lack of effective trade companies, difficulty of access to banking facilities, and lack of export credit guarantee against non-payment risk. This factor accounts for 13.9% of the variance.

Factor 3 can be reasonably identified as dealing with the "raw material related problems" factor. It is composed of four raw material variables. These are; difficulty in obtaining raw material from foreign markets, low quality of raw materials in the domestic market, lack of raw materials needed in the domestic market, and the high price of raw materials. This factor explains 8.0% of the variance.

Factor 4 consists of four types of commercial costs; cost of communication, labour skills, cost of obtaining warehouse facilities, and interest rate on banking facilities. This factor, which explains 7.5% of the variance, could be reasonably called the "export costs" factor.

Factor 5 may be labelled as a "physical distribution related problems" factor, since it is composed of variables that mainly relate to the physical distribution characteristics. These variables include; inadequate shipping and warehouse facilities, and the cost of obtaining transportation facilities. This factor accounts for 5.2% of the variance.

The final factor is composed of two attributes; the high demand for products and intense competition in the domestic market. This factor, which accounts for 4.7% of the variance, can be identified as the "domestic market conditions" factor.
The principal component analysis techniques were performed here for the following purposes:

1. To explore the main pattern of factors that underlie each construct of both dimensions of the firm's internal and external environment.

2. To reduce the large number of variables of each construct into orthogonal indices which can be used (the output of the principal component analysis) as an intermediate step (input) for further analysis by the regression and discriminant analysis techniques.

3. The principal component analysis was considered an appropriate method to overcome the potential problems of intercorrelation among the variables.

The findings of the principal component analysis revealed that 26 factors could be extracted from the seven major constructs of the firm's environmental dimensions (internal and external). Sixteen factors were extracted from the five major constructs of the firm's internal environmental dimension and ten factors were extracted from the two major constructs of the firm's external environmental dimension.

A summary of these factors, with accounting variance and eigenvalues, are presented in Table (7.9) and Table (7.10) for the firm's internal environmental dimension and the firm's external environmental dimension respectively.
Summary of the Factors That Underlie the Major Constructs of the Firm's Internal Environmental Dimension

<table>
<thead>
<tr>
<th>The Name of Construct</th>
<th>Eigenvalue</th>
<th>Percentage of Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The Managerial Aspiration Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor (1) &quot;Managerial Aspirations&quot;</td>
<td>3.31239</td>
<td>55.2</td>
</tr>
<tr>
<td>Factor (1)</td>
<td>3.26912</td>
<td>54.5</td>
</tr>
<tr>
<td>2. The Management's Expectations</td>
<td>15.32661</td>
<td>53.1</td>
</tr>
<tr>
<td>Factor (1) &quot;Operational obstacles&quot;</td>
<td>5.57495</td>
<td>20.6</td>
</tr>
<tr>
<td>Factor (2) &quot;Perceived risk&quot;</td>
<td>2.91159</td>
<td>10.8</td>
</tr>
<tr>
<td>Factor (3) &quot;Export objectives&quot;</td>
<td>2.04169</td>
<td>7.6</td>
</tr>
<tr>
<td>Factor (4) &quot;Export benefits&quot;</td>
<td>1.39512</td>
<td>5.2</td>
</tr>
<tr>
<td>Factor (5) &quot;Export barriers&quot;</td>
<td>1.27689</td>
<td>4.7</td>
</tr>
<tr>
<td>Factor (6) &quot;Competitive situation&quot;</td>
<td>1.12637</td>
<td>4.2</td>
</tr>
<tr>
<td>3. The Firm's Comparative Advantages</td>
<td>10.02068</td>
<td>62.6</td>
</tr>
<tr>
<td>Factor (1) &quot;Competitive strengths&quot;</td>
<td>4.41075</td>
<td>27.6</td>
</tr>
<tr>
<td>Factor (2) &quot;Size of the firm&quot;</td>
<td>2.15383</td>
<td>13.5</td>
</tr>
<tr>
<td>Factor (3) &quot;Technological strengths&quot;</td>
<td>1.27473</td>
<td>8.0</td>
</tr>
<tr>
<td>Factor (4) &quot;Business experience&quot;</td>
<td>1.16543</td>
<td>7.3</td>
</tr>
<tr>
<td>Factor (5) &quot;Product characteristics&quot;</td>
<td>1.01594</td>
<td>6.3</td>
</tr>
<tr>
<td>4. Commitments to Export Marketing</td>
<td>6.71602</td>
<td>56.0</td>
</tr>
<tr>
<td>Factor (1) &quot;Commitment to export related activities&quot;</td>
<td>5.48993</td>
<td>45.7</td>
</tr>
<tr>
<td>Factor (2) &quot;Willingness to change&quot;</td>
<td>1.22609</td>
<td>10.2</td>
</tr>
<tr>
<td>5. The Decision-Maker's Characteristics</td>
<td>2.97829</td>
<td>74.5</td>
</tr>
<tr>
<td>Factor (1) &quot;Education&quot;</td>
<td>1.78588</td>
<td>44.7</td>
</tr>
<tr>
<td>Factor (2) &quot;Demographic&quot;</td>
<td>1.19241</td>
<td>29.8</td>
</tr>
</tbody>
</table>
### Summary of the Factors That Underlie the Major Constructs of the Firm's External Environmental Dimension

<table>
<thead>
<tr>
<th>The Name of Construct</th>
<th>Eigenvalue</th>
<th>Percentage of Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. The Political - Legal Environment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor (1) &quot;Government's export policies and assistance&quot;</td>
<td>5.41193</td>
<td>23.5</td>
</tr>
<tr>
<td>Factor (2) &quot;Awareness of the government export policies &amp; assistance&quot;</td>
<td>3.27304</td>
<td>14.2</td>
</tr>
<tr>
<td>Factor (3) &quot;Government export facilities related problems&quot;</td>
<td>2.08242</td>
<td>9.1</td>
</tr>
<tr>
<td>Factor (4) &quot;Government export procedures related problems&quot;</td>
<td>1.11254</td>
<td>4.8</td>
</tr>
<tr>
<td><strong>2. The Economic &amp; Commercial Environment</strong></td>
<td>13.65860</td>
<td>62.1</td>
</tr>
<tr>
<td>Factor (1) &quot;Foreign markets conditions&quot;</td>
<td>5.01812</td>
<td>22.8</td>
</tr>
<tr>
<td>Factor (2) &quot;Commercial facilities&quot;</td>
<td>3.05058</td>
<td>13.9</td>
</tr>
<tr>
<td>Factor (3) &quot;Raw material problems&quot;</td>
<td>1.76621</td>
<td>8.0</td>
</tr>
<tr>
<td>Factor (4) &quot;Export costs&quot;</td>
<td>1.65225</td>
<td>7.5</td>
</tr>
<tr>
<td>Factor (5) &quot;Physical distribution&quot;</td>
<td>1.14972</td>
<td>5.2</td>
</tr>
<tr>
<td>Factor (6) &quot;The domestic market conditions&quot;</td>
<td>1.03172</td>
<td>4.7</td>
</tr>
</tbody>
</table>
CHAPTER EIGHT
THE DETERMINANTS OF THE
FIRM'S LEVEL OF EXPORTING

Introduction

8.1 The Bivariate Correlation: Factor Findings

8.2 The Interpretation of the Correlation Factor Findings

8.2.1 Internal Environmental Dimension: Factors Correlations
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CHAPTER EIGHT

THE DETERMINANTS OF THE FIRM'S LEVEL OF EXPORTING

Introduction

The 26 factors and associated variables identified in Chapter Seven will be analysed in terms of their relationships with (direction and strength), and ability to predict the level of exporting* (defined here as a dependent variable), and thus to test the following hypotheses (H01, H02, H03, H04, and H05, see Chapter 5).

The statistical analysis techniques used are the Pearson's Correlation and the stepwise multiple regression. Factors and variables will be analysed and discussed respectively in this chapter.

* The level of exporting is measured in terms of the export volume as a percentage of the firm's total sales, see Chapter 4.
8.1 The Bivariate Correlation: Factor Findings

The Pearson correlation is used to test the following null hypothesis:

\[ H_0(1): \text{There is no significant relationship between each independent factor and the level of exporting, taken separately.} \]

Table (8.2) presents the bivariate correlation coefficients between each specific factor and the criterion variable level of exporting. Of 26 independent factors, 18 factors are shown to have a significant association with the level of exporting. Of the 18 significant factors, 5 factors are related to the firm's external environmental dimension, and 13 factors are related to the firm's internal environmental dimension.

Furthermore, it was found that out of 26 factors, 10 factors are negatively associated with the dependent variable. However, only 6 of them are significantly related to the level of exporting.

8.2 The Interpretation of the Correlation Factor Findings

The possible explanations of the above findings are presented under the following two subsections:

8.2.1 Internal Environmental Dimension: Factor Correlations

The correlation analysis indicates that, out of the 16 factors of the internal environmental dimension, only 13 factors are significantly associated with the level of exporting. The possible interpretations of these 13 significant factors are given below:

---

* A list of the 26 factors is provided in Tables (7.9) and (7.10), Chapter 7.

* The T - Test of significant was used to determine the "goodness - of fit) for the correlations coefficients. The SPSSX Package produces the result of this test routinely.
Table (8.1)
The Correlation Coefficients Between Each Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>The Independent Factor</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Internal Environmental Dimension</strong></td>
<td></td>
</tr>
<tr>
<td>01 Managerial aspirations</td>
<td>.3607**</td>
</tr>
<tr>
<td>02 Operational obstacles</td>
<td>-.3363**</td>
</tr>
<tr>
<td>03. Perceived risk</td>
<td>-.1379**</td>
</tr>
<tr>
<td>04. Export objectives</td>
<td>.2629**</td>
</tr>
<tr>
<td>05. Export benefits</td>
<td>.1218*</td>
</tr>
<tr>
<td>06. Export barriers</td>
<td>.0735</td>
</tr>
<tr>
<td>07. Competitive situation</td>
<td>.0329</td>
</tr>
<tr>
<td>08. Competitive strengths</td>
<td>.3273**</td>
</tr>
<tr>
<td>09. Size of the firm</td>
<td>.3642**</td>
</tr>
<tr>
<td>10. Technological strengths</td>
<td>.0766</td>
</tr>
<tr>
<td>11. Business experience</td>
<td>.2719**</td>
</tr>
<tr>
<td>12. Product characteristics</td>
<td>.2144**</td>
</tr>
<tr>
<td>13. Commitment to export related activities</td>
<td>.3711**</td>
</tr>
<tr>
<td>14. Willingness to change</td>
<td>.5173**</td>
</tr>
<tr>
<td>15. Education</td>
<td>.1173*</td>
</tr>
<tr>
<td>16. Demographic</td>
<td>.4422**</td>
</tr>
<tr>
<td><strong>2. External Environmental Dimension</strong></td>
<td></td>
</tr>
<tr>
<td>17. Government export assistance and policies</td>
<td>.2976**</td>
</tr>
<tr>
<td>18. Awareness of the government export assistance</td>
<td>.2538**</td>
</tr>
<tr>
<td>19. Government export facilities related problems</td>
<td>-.1331**</td>
</tr>
<tr>
<td>20. Government export procedures</td>
<td>-.0163</td>
</tr>
<tr>
<td>21. Foreign market conditions</td>
<td>-.6858**</td>
</tr>
<tr>
<td>22. Commercial facilities</td>
<td>-.0898</td>
</tr>
<tr>
<td>23. Raw material problems</td>
<td>-.0007</td>
</tr>
<tr>
<td>24. Costs factor</td>
<td>-.0872</td>
</tr>
<tr>
<td>25. Physical distribution</td>
<td>-.0419</td>
</tr>
<tr>
<td>26. Domestic market conditions</td>
<td>-.1255**</td>
</tr>
</tbody>
</table>

Note: Figures in the Table above show the Pearson correlation coefficient. Level of significance is shown by ** = 0.01 level, * = 0.05 level.
In an examination of Table (8.1), it appears that the "willingness to change" factor exhibits a high correlation coefficient compared to the other factors which make up the firm's internal environmental dimension. This might imply that the management willingness to change the export marketing policies to meet foreign markets conditions should be important for those firms which want to export more.

Another important factor which shows a high correlation coefficient with the level of exporting is the "demographic". This result might indicate that this factor is regarded as being an important determinant of the level of exporting.

The factor of the "commitment to export related activities" is shown to be directly related to a high level of exporting. From the marketing point of view, this might indicate that the higher the firm's commitment to carry out several export marketing activities, the higher the level of its exporting will be. This result is also supported by previous works such as Cavusgil (1976), Cavusgil & Nevin (1981), and Aaby & Slater (1989).

The "managerial aspirations" factor is shown to have a direct relationship with the level of exporting. This might indicate that the higher the importance attached to export goals, the higher the level of exporting will be. This result appears to agree with the findings of the previous studies, such as Cavusgil (1976), Cavusgil & Nevin (1981), Kolhede (1984), and Schlegelmilch and Crook (1986).

Among the groups of factors which were extracted from the construct of the "Firm's Comparative Advantage" is the "size of the firm" factor. It is found to be directly related to the level of exporting. This might indicate that the larger the size of the firm is, the higher its level of exporting will be. While this result appears to be endorsed by some of the previous works (e.g., Tookey 1964, Reid 1980,
1983 & 1985, Ortize-Buonafina 1990 and Culpan 1989), it is found to be in conflict with other studies, such as Kirpalani & Macintosh (1980), Czinkota & Johnston (1983, 1985), Axinn (1988), and Diamantopoulos & Inglis (1985, 1988). The possible explanation of this conflict might be attributed to two factors; the first factor might be that the size of the firm here is tested at the aggregate level, i.e., a factor, and the other possible factor is that the "size of the firm" as a factor might be critical to those firms who want to improve their level of exporting. This might be due to the small size of manufacturing firms in Jordan (as a developing country) in comparison to the manufacturing firms in developed countries where most of the previous empirical studies were undertaken.

Another factor which is directly associated with the level of exporting is the "market competitive strengths" factor. This might indicate that the higher confidence of the management with their firms' market competitive advantages, the higher the level of their firms' exporting will be. This result corroborates the findings of the previous studies, such as Schlegelmilch (1983) and Kolhede (1984).

The "business experience" factor is shown to have a direct association with the level of exporting. This might indicate that the wider the experience of the firm, the higher the level of its exporting will be. It is also strongly supported by many export studies, (e.g., Ursic & Czinkota 1984 and Aaby & Slater 1989).

The "product characteristics" factor is shown to be directly related to the level of exporting. This might indicate that the strong of the firm's product advantages, the higher its level of exporting will be. It is found to be in agreement with many previous works, such as Khan (1978), Beamish and Munro (1987) and McGuinness (1978).
The "operational obstacles" factor is found to be negatively associated with the level of exporting. This might indicate that the higher the perceptions of the export operational obstacles, the lower the level of exporting will be. Also, the "perceived risk" factor is found to be negatively related to the level of exporting. The result might indicate that the higher the perception of risks, the lower the level of exporting will be. This result was supported by the findings of the other studies (e.g., Bilkey 1978 and Schlegelmilch 1986).

The "export objectives" factor is found to be positively related to the dependent variable level of exporting. This might indicate that the higher the expectation of management with regard to the export objectives, the higher their firms' level of exporting will be. It is in agreement with many export studies, such as Czinkota and Johnston (1983), Cavusgil and Nevin (1981) and Axinn (1985, 1988).

The "export benefits" factor is also found to be positively correlated with the level of exporting. This might indicate that the higher the perceptions, or the importance attached to the export benefits, the higher the level of exporting will be.

The last factor (i.e., "education") is shown to have a direct association with the level of exporting. This might indicate the higher the level of the manager's education, the higher the level of their firms' exporting will be. It appears to be in agreement with previous works, such as Schlegelmilch (1983) and Burton & Schlegelmilch (1987).

The lack of significance for the other factors, (i.e., "export barriers", "competitive situations", and "technological strengths") might be attributed to the fact that they may be more important in determining the firm's export behaviour rather than its level of exporting.
8.2.2 External Environmental Dimension: Factor Correlations

The interpretation of the five significant factors of the external environmental dimension is presented and discussed in terms of their level of the correlations and their level of significance (see Table 8.1), as follows:

The "foreign market conditions" factor stands out as the highest factor correlated with the level of exporting. This might indicate that the higher the perception or the importance attached to the foreign market conditions, the lower the level of exporting will be. It is not surprising that this factor is found to be crucial to the level of exporting, because if the foreign market conditions are unfavourably perceived, the level of exporting is expected to be at its lowest. Of course, this result makes sense, because during the data collection, Jordanian manufacturing firms were experiencing tough foreign market conditions as a result of the Gulf crisis which took place in August 1990. Iraq as the main participant of this conflict, was the most important destination market for Jordanian export products (see Chapter 1).

The "government's export policies and assistance" factor is shown to be positively associated with the level of exporting. This might indicate that the higher the importance attached to the government's export policies and assistance, the higher the level of exporting will be. This might be due to the fact that these types of assistances are strongly needed among the firms surveyed, in particular those firms which are not in a position or able to export more, without government's export assistance.

Another factor which is positively correlated with the level of exporting is the "awareness of the government's export policies and assistance". This result might indicate that the higher the awareness
of the government's export policies and assistance, the higher the level of exporting will be. It also might indicate how much the awareness or knowledge of those export policies and assistance are important for firms which intend to export more.

The "government's export facilities related problems" factor is shown to be negatively associated with the level of exporting. This might indicate that the higher the perception of this factor, the lower the level of exporting will be. Also, it might imply that the inadequacy of the government's export facilities or the difficulty associated with obtaining such facilities is an important determinant to the level of exporting. Again this factor emphasizes how the government's export facilities are important for firms which want to export more.

The "domestic market conditions" factor is found to be negatively associated with the level of exporting. This result might indicate that the higher the perception of the "domestic market conditions" factor, the lower the level of exporting will be. It might be due to the fact that the domestic market conditions inhibit the firms from getting involved in a higher level of exporting. For example, the high domestic demand might discourage firms to increase their level of exporting beyond a certain point (e.g., Rao et al. 1990).

Among the constructs of the external environmental dimension, 5 independent factors are found to be not importantly related to the level of exporting. They are; "government export procedures related problems", "commercial facilities", "raw material related problems", "export costs", and "physical distribution". The lack of significant relationships between those factors and the level of exporting might be due to the fact they are important in determining the firm's decision to become involved in exporting.
The Stepwise Multiple Regression: Dimension Findings

The stepwise multiple regression analysis technique is performed here in order to examine the following three null hypotheses:

**HO(2):** There is no significant relationship between the internal environmental measures, (i.e., 16 factors*) and the level of exporting, taken together.

**HO(3):** There is no significant relationship between the external environmental measures, (i.e., 10 factors*) and the level of exporting, taken together.

**HO(4):** There is no significant relationship between the two environmental measures (i.e., 26 factors) and the level of exporting, taken together.

Table (8.2) summarizes the results of the stepwise multiple regression analysis, with the F - ratio test, for the three above hypotheses. The results indicate that each of these hypotheses (i.e., HO2, HO3, and HO4) is correlated significantly with the level of exporting at .0000 level of significant. Accordingly, it may be concluded that there is a significant relationship between each dimension (i.e., internal, external, and combined) and the level of exporting.

Table (8.2)

A Summary Results of the Stepwise Multiples Regression

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Dimension</th>
<th>Multiple R</th>
<th>R. Square</th>
<th>Adjusted R²</th>
<th>DF</th>
<th>F - Sign.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HO(2)</td>
<td>Internal</td>
<td>.72370</td>
<td>.52375</td>
<td>.49454</td>
<td>16</td>
<td>.0000</td>
</tr>
<tr>
<td></td>
<td>External</td>
<td>.73165</td>
<td>.53531</td>
<td>.52289</td>
<td>10</td>
<td>.0000</td>
</tr>
<tr>
<td></td>
<td>Combined</td>
<td>.81175</td>
<td>.66871</td>
<td>.64542</td>
<td>26</td>
<td>.0000</td>
</tr>
</tbody>
</table>

* A list of the 16 internal factors is provided in Tables (7.9)

* A list of the 10 external factors is provided in Tables (7.10)
8.4 The Interpretation of the Stepwise Multiple Regression Findings

According to the stepwise multiple regression method, the variable which correlated highly with the dependent variable level of exporting is expected to enter into the regression equation. The F value at .00 level of significance will be used to determine the "goodness of fit" for the regression equation. The F value is the ratio of explained to unexplained variance accounted for by the regression equation. When the total variance accounted for is low, interpretation of the individual beta coefficient has little meaning (SPSS 1990). Therefore, when the adjusted (R²) square is around .10 or above and the F value of the regression equation reaches to 0.05 level of significance the individual beta weight is explained.

Also, in this study the severity or degree of multicollinearity is tested by examining the relative size of the pairwise correlation coefficient between the explanatory independent factors. An examination of the correlation matrix indicates that the correlation for each coefficient is less than about (.50). Therefore, it is possible to interpret the results since the multicollinearity is not severe.

The results of the stepwise regression analysis are presented and discussed here under the following subsections:

8.4.1 Stepwise Multiple Regression: Internal Dimension

The results of the stepwise regression analysis indicate that the firm's internal environmental dimension (i.e., all 16 factors of the internal dimension, taken together) is significantly related to the level of exporting. This result supports the findings of the previous studies, in particular those reported by Cavusgil and Nevin (1981), Kolhede (1984), Axinn (1988), Gomez-Mejia (1988) & Gemunden (1991).
The findings also indicate that, out of those 16 explanatory independent factors, only 3 factors are included in the regression equation. These 3 factors in terms of their order of importance are; "willingness to change", "commitment to export related activities", and "size of the firm" (see Table 8.3).

The adjusted R square for these three factors is .4945. This indicates that about 50% of the variation of the level of exporting can be explained by these three factors.

The "willingness to change" factor is shown to be the most important factor that related to the level of exporting. The Beta coefficient for this factor is .5872. This might imply that the management willingness to change the export marketing policies to meet foreign markets conditions is necessary for firms which want improve their level of exporting.

The "commitment to export related activities" is the next most important factor that is highly associated with the level of exporting. The Beta coefficient indicates that this factor on its own accounted for .3565 of the variation of the level of exporting. It might imply that the commitment to export marketing activities is important for firms which want to increase their level of exporting.

The last most important factor included in the regression equation is the "size of the firm". The Beta correlation coefficient for this factor is .1595. This might indicate that this factor (i.e., the "size of the firm") is critical for firms which intend to improve their level of exporting.
Table (8.3)

The Stepwise Regression Analysis: Internal Dimension

<table>
<thead>
<tr>
<th>Factors</th>
<th>Step</th>
<th>Mult. Rsq</th>
<th>Adjrsq</th>
<th>Sign. Beta In</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willingness to change</td>
<td>1</td>
<td>.5872</td>
<td>.3411</td>
<td>.000</td>
</tr>
<tr>
<td>Commitment to export related activities</td>
<td>2</td>
<td>.6868</td>
<td>.4689</td>
<td>.000</td>
</tr>
<tr>
<td>The size of the firm</td>
<td>3</td>
<td>.7032</td>
<td>.4905</td>
<td>.000</td>
</tr>
</tbody>
</table>

Factors Included In the Regression Equation

Multiple R = .72370
R Square = .52375
Adjusted R Square = .49454
Significant F = .0000

The Stepwise Regression Analysis: Internal Dimension

Factors

- Willingness to change
- Commitment to export related activities
- The size of the firm

The factors included in the regression equation are as follows:

1. Willingness to change
   - Beta In: .5872
   - Significant F: .000

2. Commitment to export related activities
   - Beta In: .6868
   - Significant F: .000

3. The size of the firm
   - Beta In: .7032
   - Significant F: .000

The table above shows the stepwise regression analysis for the internal dimension. The factors included in the regression equation are significant at the 0.000 level, indicating their importance in the internal dimension.
8.4.2 Stepwise Multiple Regression: External Dimension

The results of the stepwise multiple regression analysis indicate that the firm's external environmental dimension, (i.e., all 10 factors of the external dimension; taken together) is importantly related to the level of exporting.

To the best knowledge of the researcher, supporting evidence for the effect of the external dimension (taken together) upon the level of exporting might not be established in the previous studies*.

The findings indicate that, out of these 10 explanatory independent factors, only 5 important factors are included in the regression equation. The adjusted R square of these factors is .5234.

In comparing this result with the previous one, i.e., the result of internal dimension (see section 8.2.1), it may be concluded that the combination of the factors of the external dimension (52%) produces a slightly better explanation of the variances of the level of exporting than the combination of the factors of the internal dimension (50%). This might indicate that the factors existing outside the firm's environmental boundary are more critical to its level of exporting than those ones related to its internal environmental process.

As shown in Table (8.4), these five most important factors included in the regression equation are discussed according to their order of importance as follows:

The "foreign markets conditions" factor is ranked as the most important when compared to the other factors of the external environmental dimension. This might indicate that the foreign market conditions as perceived by managers are crucial to a high level of

* The variables or the constructs which comprise the external environmental dimension were only examined separately in the previous studies.
Table (8.4)

The Stepwise Regression Analysis: External Dimension

<table>
<thead>
<tr>
<th>Factors</th>
<th>Step</th>
<th>Mult.</th>
<th>Rsq</th>
<th>Adjrsq</th>
<th>Sign.</th>
<th>Beta in</th>
</tr>
</thead>
<tbody>
<tr>
<td>The foreign market conditions</td>
<td>1</td>
<td>0.6881</td>
<td>0.4734</td>
<td>0.4721</td>
<td>0.000</td>
<td>-0.6881</td>
</tr>
<tr>
<td>The government's export policies and assistances</td>
<td>2</td>
<td>0.7046</td>
<td>0.4938</td>
<td>0.4936</td>
<td>0.000</td>
<td>0.1555</td>
</tr>
<tr>
<td>The awareness of the government's export policies and assistances</td>
<td>3</td>
<td>0.7163</td>
<td>0.5130</td>
<td>0.5092</td>
<td>0.000</td>
<td>0.1314</td>
</tr>
<tr>
<td>The domestic market conditions</td>
<td>4</td>
<td>0.7245</td>
<td>0.5249</td>
<td>0.5199</td>
<td>0.000</td>
<td>-0.1097</td>
</tr>
<tr>
<td>The export costs</td>
<td>5</td>
<td>0.7284</td>
<td>0.5305</td>
<td>0.5243</td>
<td>0.000</td>
<td>-0.0980</td>
</tr>
</tbody>
</table>

Multiple R = 0.73165
R Square = 0.53531
Adjusted R Square = 0.52289

Significant F = 0.0000
exporting. In other words, the higher the importance attached to the "foreign markets conditions" factor, the lower the level of exporting will be. Unfavourable perceptions of the foreign market conditions might discourage or inhibit firms from exporting more.

Another most important factor is the "government's export policies and assistance". The Beta coefficient indicates that there is a positive relationship between this factor and the dependent variable. This might indicate that these export assistances and policies are required for firms which want to be at a high level of exporting.

The "awareness of the government's export policies and assistances" factor is ranked as the third most important factor associated with the level of exporting. This might indicate, on the one hand, how much those export policies and assistances are important to the level of exporting, and on the other hand, it might indicate how much the government pays attention to promoting and encouraging firms to become involved in export marketing.

Another most important factor included in the regression equation is the "domestic market conditions". This might indicate that the "domestic market conditions" factor is critical for firms which want to increase their level of exporting. In fact, the domestic market conditions might discourage or inhibit firms from increasing their level of exporting beyond certain conditions (e.g., Keesing 1979 and Rao et al. 1977, 1990).

Finally, the last most important factor is the "export costs". The result indicates that there is a negative relationship between this factor and the dependent variable. This might indicate that the higher the perception of the costs of obtaining commercial facilities for exporting purposes, the lower the level of exporting will be.
8.4.3 Stepwise Multiple Regression: Combination

This approach is expected to provide evidence of the determinants of the level of exporting when compared with the solution for each dimension, (i.e., each one acts alone). More of the predictor factors are expected to enter in the regression equation.

The results of the stepwise multiple regression indicate that the combination of the two dimensions (i.e., all 26 factors, acting together) is significantly associated with the level of exporting.

The findings also indicate that, out of the 26 factors, only 7 factors are included in the regression equation. The adjusted R square for those 7 factors together is .6443, i.e., about 64% of the variation of the level of exporting is explained by them (Table 8.5).

Those 7 most important factors included in the regression equation are in terms of their order of importance; "foreign markets conditions", "management's willingness to change", "commitment to export related activities", "size of the firm", "domestic market conditions", "business experience", and the "government's export facilities related problems".

Four factors related to the internal dimension, and three factors related to the external dimension. The 4 internal dimension factors are also shown to be importantly related to the level of exporting when they taken separately. However, only 1 factor, (i.e., business experience) is not regarded as important when all the factors of the firm's internal dimension act alone.

The three factors of the external dimension are also found to be importantly related to the dependent variable when they act separately. However, only two of them are shown to be important when all of the factors of the firm's external environmental dimension act alone. These two factors are: "foreign markets conditions" and the
Table (8.5)

The Stepwise Regression Analysis: Combination

<table>
<thead>
<tr>
<th>Factors</th>
<th>Step</th>
<th>Mult.</th>
<th>Rsq</th>
<th>Adjrsq</th>
<th>Sign. Beta In</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign market conditions</td>
<td>1</td>
<td>.6881</td>
<td>.4754</td>
<td>.4740</td>
<td>.000 - .6895</td>
</tr>
<tr>
<td>Willingness to change</td>
<td>2</td>
<td>.7435</td>
<td>.5527</td>
<td>.5504</td>
<td>.000 .3207</td>
</tr>
<tr>
<td>Commitment to export related activities</td>
<td>3</td>
<td>.7844</td>
<td>.6153</td>
<td>.6122</td>
<td>.000 - .2583</td>
</tr>
<tr>
<td>Size of the firm</td>
<td>4</td>
<td>.7964</td>
<td>.6342</td>
<td>.6304</td>
<td>.000 .1457</td>
</tr>
<tr>
<td>Domestic market conditions</td>
<td>5</td>
<td>.8015</td>
<td>.6425</td>
<td>.6377</td>
<td>.000 - .0917</td>
</tr>
<tr>
<td>Business experience</td>
<td>6</td>
<td>.8041</td>
<td>.6466</td>
<td>.6410</td>
<td>.000 .0694</td>
</tr>
<tr>
<td>Government's export facilities related problems</td>
<td>7</td>
<td>.8067</td>
<td>.6508</td>
<td>.6443</td>
<td>.000 .0682</td>
</tr>
</tbody>
</table>
the "domestic market conditions".

The Beta coefficient indicates that the "foreign market conditions" factor is ranked as the most important in comparison to other factors included in the regression equation. This might indicate how much this factor is important to the level of exporting. The adjusted R square for this factor alone is .4740. It also indicates that about 47% of the variations in the dependent variable level of exporting can be explained only by this factor.

The "willingness to change" factor is the next most important factor that is directly associated with the level of exporting. The Beta correlation coefficient for this factor is .3207. This indicates that there is a moderate relationship between this independent factor and the level of exporting. The adjusted R square change for this factor is .0773 which indicates that this factor can add (by itself) about 8% of the explanation to the total of the adjusted R square.

Another most important factor included in the regression equation is the "commitment to export related activities". The Beta correlation coefficient of this factor is .2583. This might indicate that the higher the degree of the firm's commitment to undertake export marketing activities, the higher the level of exporting might be.

The "size of the firm" is ranked as the fourth most important factor related to the level of exporting. The Beta correlation coefficient of this factor is .1457. This might indicate that the size of the firm is crucial to a high level of exporting, because the larger firms are more capable of or in a better position to increase their level of exporting than the smaller manufacturing ones.

The "domestic market conditions" factor is ranked as the fifth most important factor associated with the level of exporting. The Beta
correlation coefficient indicated that there is a negative relationship between this factor and the dependent variable.

The result of the stepwise regression at Step 6 also indicates that the "business experience" factor might be regarded as an important factor related to a high level of exporting. Finally, the "government export facilities related problems" factor is ranked as the seventh most important factor associated with the level of exporting. This result might indicate that the worse the perceptions of these problems associated with obtaining of the government's export facilities, the lower the level of exporting might be.

In comparing this solution with the other two solutions presented in the previous sections, i.e., the results of each dimension acting alone (sections 8.2.1 and 8.2.2, Chapter 8), it may be concluded that the combination of the two environmental dimensions would give a better explanation (predictive power) of the variation of the level of exporting than either dimension acting individually. Indeed, not only because the number of determinants (7 factors) is increased, but also the rate of explanation which they account for is increased from 49% (internal dimension) and 52% (external dimension) to about 64%.

This conclusion implies that a better understanding of the determinants of the firm's level of exporting requires that the two environmental dimensions as a whole should be viewed (i.e., internal and external acting together) rather than only viewing each dimension acting individually. However, previous studies have mainly focused on the firm's internal environmental characteristics.
8.5 The Bivariate Correlation: Variable Findings

The Pearson correlation is used again to test the following hypothesis:

\[ H_0(5): \text{There is no significant relationship between the variables which comprise each factor and the dependent variable level of exporting; taken separately.} \]

This major hypothesis can be further divided into 26 hypotheses according to the number of the factors included in the analysis. A summary result for each of these hypotheses is given in Table (8.6).

The results indicate that, out of the 26 factors, only 18 factors are found to be significant in terms of all their associated variables, 2 factors are shown to be insignificant in terms of all their associated variables, and 6 factors are found to be mixed, i.e., some of their associated variables are found to be significant and others not.

8.6 The Interpretation of the Correlation Variable Findings

The main purpose of this analysis is: (1) to find out which variable is highly correlated with the level of exporting, i.e., the most important variable in comparison to the other variables of each factor, (2) to find out whether the result is in agreement or disagreement with previous works in this field, and (3) to conclude whether the results of the attributes of each factor taken together or separately are similar with respect to the level of exporting.

Results of the variables analysis are presented and discussed in terms of each factor to which they belong, as follows:
The Correlation Coefficients Between the Variables Which Comprise Each Independent Factor (Taken Separately) and the Level of Exporting

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>The Independent Factors</th>
<th>No. of Variables</th>
<th>Taken Separately</th>
</tr>
</thead>
<tbody>
<tr>
<td>F(HO)01</td>
<td>Managerial aspirations</td>
<td>6</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)02</td>
<td>Operational obstacles</td>
<td>8</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)03</td>
<td>Perceived risk</td>
<td>5</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)04</td>
<td>Export objectives</td>
<td>5</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)05</td>
<td>Export benefits</td>
<td>4</td>
<td>2 signif.</td>
</tr>
<tr>
<td>F(HO)06</td>
<td>Export barriers</td>
<td>3</td>
<td>All insignif.</td>
</tr>
<tr>
<td>F(HO)07</td>
<td>Competitive situation</td>
<td>2</td>
<td>All insignif.</td>
</tr>
<tr>
<td>F(HO)08</td>
<td>Competitive strengths</td>
<td>5</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)09</td>
<td>Size of the firm</td>
<td>3</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)10</td>
<td>Technological strengths</td>
<td>3</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)11</td>
<td>Business experience</td>
<td>2</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)12</td>
<td>Product characteristics</td>
<td>3</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)13</td>
<td>Commitment to export...</td>
<td>8</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)14</td>
<td>Willingness to change</td>
<td>4</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)15</td>
<td>Education</td>
<td>2</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)16</td>
<td>Demographic</td>
<td>2</td>
<td>1 signif.</td>
</tr>
<tr>
<td>F(HO)17</td>
<td>Government's export assistances</td>
<td>9</td>
<td>8 signif.</td>
</tr>
<tr>
<td>F(HO)18</td>
<td>Awareness of the government export...</td>
<td>6</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)19</td>
<td>Government export facilities.</td>
<td>6</td>
<td>3 signif.</td>
</tr>
<tr>
<td>F(HO)20</td>
<td>Government export procedures.</td>
<td>3</td>
<td>1 signif.</td>
</tr>
<tr>
<td>F(HO)21</td>
<td>Foreign market conditions</td>
<td>5</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)22</td>
<td>Commercial facilities</td>
<td>4</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)23</td>
<td>Raw material problems</td>
<td>4</td>
<td>All insignif.</td>
</tr>
<tr>
<td>F(HO)24</td>
<td>Export costs</td>
<td>4</td>
<td>2 signif.</td>
</tr>
<tr>
<td>F(HO)25</td>
<td>Physical distribution</td>
<td>3</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)26</td>
<td>Domestic market conditions</td>
<td>2</td>
<td>All signif.</td>
</tr>
</tbody>
</table>

Significance level = 0.05 and 0.01
The "Managerial Aspirations" Factor: Variable Correlations

The "managerial aspiration" factor is composed of six variables (Table 8.7). The result indicates that each of these independent variables is related to a high level of exporting. An examination of the direction of the relationship between each variable and dependent variable also indicates all but one are positively correlated with the dependent variable. This variable which is negatively associated with the dependent variable is found to be securing steady growth for firms. It might indicate that the need for securing steady growth is an important goal for firms with a lower level of exporting. This result is confirmed by other studies, (e.g., Bilkey 1978, Cavusgil 1976, Axinn 1985, 1988, and Moon & Lee 1990).

In comparison to other attributes of this factor, reducing the cost of production is shown to be the most important attribute related to the level of exporting. This might indicate that the higher the aspirations of management to reduce the cost of production, the higher the level of exporting will be. Therefore, it may be concluded that the "managerial aspirations" factor attributes (taken together, or separately) are important as determinants of the level of exporting, in particular, the managerial aspiration to reduce the cost of production attribute.

Table (8.7)

The Correlation Coefficient Between the Variables of the "Managerial Aspiration" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V31</td>
<td>Improving the firm's market position</td>
<td>.2331**</td>
</tr>
<tr>
<td>V32</td>
<td>Increasing the overall profit</td>
<td>.3635**</td>
</tr>
<tr>
<td>V33</td>
<td>Securing steady growth</td>
<td>-.3594**</td>
</tr>
<tr>
<td>V34</td>
<td>Developing market strategies</td>
<td>.3667**</td>
</tr>
<tr>
<td>V35</td>
<td>Reducing the cost of production</td>
<td>.3878**</td>
</tr>
<tr>
<td>V36</td>
<td>Increasing the sales volume</td>
<td>.3478**</td>
</tr>
</tbody>
</table>
(2) The "Operational Obstacles" Factor: Variable Correlations

The "operational obstacles" factor consists of 8 variables (Table 8.8). The result indicates that each of these variables is shown to have a negative association with the level of exporting. Among the classes of obstacles, lack of export expertise is found to be the most important related to the dependent variable. This implies that lack of personal expertise or know-how is an important determinant of a high level of exporting.

The attributes of the "operational obstacles" factor (taken together) are also found to be importantly related to the level of exporting. The possible interpretation of this might be that the higher the perception of operational export obstacles, the lower the level of exporting will be.

There is a strong support for this result. Indeed, it was revealed by many of the studies, that the perception of export obstacles will adversely determine the firm's level of exporting, (e.g., Czinkota & Johnston (1983) & Bilkey (1978)).

Table (8.8)
The Correlation Coefficient Between the Variables of the "Operational Obstacles" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V67</td>
<td>Difficulty of obtaining sales representatives</td>
<td>-.2219**</td>
</tr>
<tr>
<td>V68</td>
<td>Difficulty of pricing products</td>
<td>-.1920**</td>
</tr>
<tr>
<td>V65</td>
<td>Lack of knowledge in communicating</td>
<td>-.2766**</td>
</tr>
<tr>
<td>V70</td>
<td>Difficulty of locating potential demand</td>
<td>-.2706**</td>
</tr>
<tr>
<td>V66</td>
<td>Lack of personal expertise</td>
<td>-.2829**</td>
</tr>
<tr>
<td>V75</td>
<td>Size of production</td>
<td>-.2321**</td>
</tr>
<tr>
<td>V69</td>
<td>Inability to establish distribution systems</td>
<td>-.2924**</td>
</tr>
<tr>
<td>V71</td>
<td>Difficulty of maintaining control</td>
<td>-.2348**</td>
</tr>
</tbody>
</table>

** = 0.01 significance level  * = 0.05 significance level
The "Perceived Risk" Factor: Variable Correlations

The "perceived risk" factor is composed of five types of risks (Table 8.9). The result shows that each of these independent variables is related to the level of exporting. Also, the result of the "perceived risk" acting as a factor is found to be importantly related to the level of exporting. This result is in line with many export studies, such as Bilkey (1978), Schlegelmilch (1986) and Ortiz-Buonafina (1990).

Therefore, it might be concluded that the "perceived risk" attributes (taken together, or separately) are important determinants of the level of exporting, in particular, the political risk attribute.

Table (8.9)

The Correlation Coefficient Between the Variables of the "Perceived Risk" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V93</td>
<td>The high risk of production</td>
<td>-.171**</td>
</tr>
<tr>
<td>V98</td>
<td>The high political risk</td>
<td>-.7086**</td>
</tr>
<tr>
<td>V88</td>
<td>The high risk of transportation</td>
<td>-.1773**</td>
</tr>
<tr>
<td>V78</td>
<td>The high foreign exchange risk</td>
<td>-.1099*</td>
</tr>
<tr>
<td>V77</td>
<td>The high risk of collecting money</td>
<td>-.1779**</td>
</tr>
</tbody>
</table>

** = 0.01 significance level  * = 0.05 significance level

(4) The "Export Objectives" Factor: Variable Correlations

The "export objectives" factor is composed of 5 independent variables. An examination of Table (8.10) indicates that each of these variables is shown to have a relationship with the level of exporting. When compared to other variables of this factor, the increasing the security of the firm's investment attribute is the only one that was found to be adversely associated with the level of exporting. The
result also indicates that management's expectation concerning profit is the most important attribute that correlated with the dependent variable. It appears that managers view exporting primarily as an alternative means for making greater profit. This result is found to be in conflict with Cavusgil's study. Cavusgil (1976) reported that while growth was the main alternative concern for the firm, profit was found to be the second. A possible explanation of this could be related to the different originations of the firms which were studied.

Also, the attributes of this factor as taken together are found to be importantly related to a high level of exporting. Therefore, it may be concluded that the attributes of this factor are important as determinants of the level of exporting, in particular, the management's expectation of making greater profit attribute.

Table (8.10)
The Correlation Coefficient Between the Variables of the "Export Objectives" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V27</td>
<td>Making greater profit</td>
<td>.3449**</td>
</tr>
<tr>
<td>V26</td>
<td>Using the firm's excess capacity</td>
<td>.2304**</td>
</tr>
<tr>
<td>V30</td>
<td>Increasing the firm's annual sales</td>
<td>.2391**</td>
</tr>
<tr>
<td>V28</td>
<td>Increasing the security of the firm's</td>
<td>-.1179*</td>
</tr>
<tr>
<td>V21</td>
<td>Increasing the growth of the firm</td>
<td>.2173**</td>
</tr>
</tbody>
</table>

** = 0.01 significance level    * = 0.05 significance level

(5) The "Export Benefits" Factor: Variable Correlations

An examination of Table (8.11) indicates that, out of 4 variables which constitute the "export benefits" factor, only two variables are found to be associated with the level of exporting. These two variables are; overcoming instability demand and benefiting from the government export assistance. This result might indicate that these
two variables are the most important benefits related to a high level of exporting. The lack of significance level for the other two variables, i.e., preventing dependency in the domestic market and having better opportunities in the foreign market, could be more important in determining whether or not the firm would become involved in export marketing.

However, these attributes acting as a factor are regarded as important to a high level of exporting. This might indicate that the attributes of this factor (taken together) are more important to a high level of exporting than when taken individually. The possible explanation might be attributed to either of two reasons; the use of the aggregate measure (i.e., factor) may produce more power than depending on each attribute acting individually, or perhaps the different types of the industrial firms under investigation. Some of these types might regard these attributes taken together as being critical to their high level of exporting.

Table (8.11)
The Correlation Coefficient Between the Variables of the "Export Benefits" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V16</td>
<td>Overcoming instability demand</td>
<td>.1988**</td>
</tr>
<tr>
<td>V29</td>
<td>Better opportunities in the foreign market</td>
<td>.0851</td>
</tr>
<tr>
<td>V20</td>
<td>Benefiting from the government's export assistance</td>
<td>.1719**</td>
</tr>
<tr>
<td>V22</td>
<td>Preventing dependency in the domestic market</td>
<td>.0851</td>
</tr>
</tbody>
</table>

** = 0.01 significance level  * = 0.05 significance level

(6) The "Export Barriers" Factor: Variable Correlations

The "export barriers" factor consists of three independent variables. An examination of Table (8.12) indicates that each of these independent variables is not shown to be an important to the level of
exporting. The result for these variables acting as a factor are also found to be not important to the dependent variable. This might indicate that these attributes of this factor are not regarded as important determinants of the level of exporting whether taken together, or separately. The possible explanation of the lack of significance might be attributed to the fact that these types of export barriers have more influence on the firm's decision to export.

Table (8.12)
The Correlation Coefficient Between the Variables of the "Export Barriers" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V73</td>
<td>Inability to provide follow up services</td>
<td>-.0418</td>
</tr>
<tr>
<td>V74</td>
<td>Inability to provide credit facilities</td>
<td>-.0929</td>
</tr>
<tr>
<td>V72</td>
<td>Difficulty of collecting money</td>
<td>-.0840</td>
</tr>
</tbody>
</table>

** = 0.01 significance level  * = 0.05 significance level

(7) The "Competitive Situation" Factor: Variable Correlations

The "competitive situation" factor consists of two independent variables; keeping pace with local competitors and overcoming competition in the domestic market. An examination of Table (8.13) reveals that each of them is shown to be not important to the level of exporting. These attributes acting as a factor are also found to be not important to the dependent variable.

Table (8.13)
The Correlation Coefficient Between the Variables of the "Competitive Situation" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V23</td>
<td>Overcoming competition in the domestic market</td>
<td>.0300</td>
</tr>
<tr>
<td>V19</td>
<td>Keeping peace with local competitors</td>
<td>.0054</td>
</tr>
</tbody>
</table>
Therefore, it may be concluded that the attributes of this factor are not important determinants of the level of exporting (taken together, or separately). The possible explanation is that the competitive situations in the domestic market might be critical to the firm to become involved in exporting rather than to increase its level of exporting.

(8) The "Market Competitive Strengths" Factor: Variable Correlations

The "market competitive strengths" factor is composed of six independent variables (Table 8.14). The result indicates that each of these variables is shown to have a direct relationship with the level of exporting. In comparison to the other variables of this factor, the strength of management attribute is the most important related to the dependent variable.

Also, the findings in respect of these attributes acting as a factor are regarded to be important to a high level of exporting. Therefore, it might be concluded that these attributes (taken together, or separately) are important determinants of the level of exporting, in particular, the strength of management skills attribute.

Table 8.14

The Correlation Coefficient Between the Variables of the "Market Competitive Strengths" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V54</td>
<td>Ability to hire trained persons for the overseas markets</td>
<td>.2703**</td>
</tr>
<tr>
<td>V53</td>
<td>Ability to offer discount prices to overseas customers</td>
<td>.2824**</td>
</tr>
<tr>
<td>V24</td>
<td>The strength of management</td>
<td>.3543**</td>
</tr>
<tr>
<td>V18</td>
<td>The proximity to foreign market</td>
<td>.1045*</td>
</tr>
<tr>
<td>V49</td>
<td>The firm's technological standard level</td>
<td>.2343**</td>
</tr>
</tbody>
</table>

** = 0.01 significance level  * = 0.05 significance level
(9) The "Size of the Firm" Factor: Variable Correlations

The "size of the firm" factor consists of three variables; number of employees, total of capital assets, and sales volume. The result indicates that each of them is shown to be important to a high level of exporting. An examination of Table (8.15) reveals that the total capital assets, which each firm holds, is the highest one that directly correlated with the level of exporting. This might indicate that the size of the capital assets that are held by each firm would be critical to its high level of exporting.

Also, these attributes as acting together are found to be directly related to the level of exporting. Therefore, it might be concluded that the attributes of this factor are important as determinants of the level of exporting (taken together, or separately), in particular, the amount of capital assets held by each firm.

Table (8.15)

The Correlation Coefficient Between the Variables of the "Size of the Firm" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V104</td>
<td>Number of employees</td>
<td>.3552**</td>
</tr>
<tr>
<td>V106</td>
<td>Total of the capital assets</td>
<td>.4336**</td>
</tr>
<tr>
<td>V108</td>
<td>Total sales volume</td>
<td>.3885**</td>
</tr>
</tbody>
</table>

** = 0.01 significance level  * = 0.05 significance level

(10) The "Firm's Technological Strengths" Factor: Variable Correlations

The "firm's technological strengths" factor consists of three variables (Table 8.16). The results reveal that each of these variables is found to be directly associated with the level of exporting. However, these attributes as acting together are found to be irrelevant to the dependent variable. This might indicate that
these attributes (taken individually) are more important to the level of exporting than when they are taken together, (i.e., as a factor). There appears to be a contradiction in the result. It might be attributed partially to the fact that most of the firms which were surveyed did not produce a high technological product, or it could be related to the general low level of technological development in the Jordanian environment. However, this result still needs further investigation.

Table (8.16)
The Correlation Coefficient Between the Variables of the "Firm's Technological Strengths" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V50</td>
<td>The superior product equipment</td>
<td>.1074*</td>
</tr>
<tr>
<td>V51</td>
<td>The superior production methods</td>
<td>.1431**</td>
</tr>
<tr>
<td>V55</td>
<td>The higher ability to modify the product</td>
<td>.2332**</td>
</tr>
</tbody>
</table>

** = 0.01 significance level  * 0.05 = significance level

(11) The "Business Experience" Factor: Variable Correlations

As can be seen in Table (8.17), the "business experience" factor consists of two types of experience; number of years in business (age) and number of years in exporting. The result indicates that each of these variables is directly associated with the level of exporting. The number of years exporting is the most important type of experience that highly correlated with the dependent variable.

Also, these attributes of this factor taken together are found to be importantly related to the level of exporting. This result is supported strongly by many studies (e.g., Bilkey 1978, McDougall & Stening 1975, Ursic & Czinkota 1984 and Da Rocha et al. 1990). Therefore, it can be concluded that the wider the business experience of the firm, the higher the level of exporting will be expected.
Table (8.17)

The Correlation Coefficient Between the Variables of the "Business Experience" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V103</td>
<td>The number of years in business</td>
<td>.1361**</td>
</tr>
<tr>
<td>V107</td>
<td>The number of years exporting</td>
<td>.5202**</td>
</tr>
</tbody>
</table>

** = 0.01 significance level  * = 0.05 = significance level

(12) The "Product Characteristics" Factor: Variable Correlations

The result indicates that each of the three attributes which constitute this factor (Table 8.18) is importantly related to the dependent variable level of exporting. When compared to the other attributes of this factor, the uniqueness of product attribute is found to be the most important that highly associated with the level of exporting.

The attributes of the "product characteristics" factor (taken together) are also regarded as important to the level of exporting. This result is strongly supported by many export studies, such as Kolhede (1984), Schlegelmilch (1986), and Da Rocha et al. 1990.

Therefore, it might be concluded that the attributes of the "product characteristics" factor (taken together, or separately) are important as determinants of the level of exporting, in particular, the uniqueness of a product attribute.

Table (8.18)

The Correlation Coefficient Between the Variables of the "Product Characteristics" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V52</td>
<td>Product quality</td>
<td>.1045*</td>
</tr>
<tr>
<td>V25</td>
<td>Product competitive price</td>
<td>.2805**</td>
</tr>
<tr>
<td>V17</td>
<td>Uniqueness of product</td>
<td>.3180**</td>
</tr>
</tbody>
</table>
The "commitment to export related activities" factor consists of 8 independent variables (Table 8.19). The results reveal that each of these variables is importantly related to the level of exporting. When compared to the other variables, the commitment to seek export opportunities attribute is the most important related to the dependent variable.

These variables acting as a factor are also considered as important to a high level of exporting. This result appears to agree with the findings of the previous export studies, such as those reported by Cavusgil and Nevin (1981), Kolhede (1984) and Walters and Samiee (1990). Therefore, it might be concluded that the attributes of this factor (taken together or separately) are important as determinants of the level of exporting, in particular, the commitment to seek export opportunities in foreign markets.

Table (8.19)

The Correlation Coefficient Between the Variables of the "Commitment to Export Related Activities" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V41</td>
<td>We promote our products to overseas customers</td>
<td>.3956**</td>
</tr>
<tr>
<td>V40</td>
<td>We participate in international trade fairs</td>
<td>.3595**</td>
</tr>
<tr>
<td>V42</td>
<td>We plan to get into foreign markets</td>
<td>.3919**</td>
</tr>
<tr>
<td>V43</td>
<td>We send sales representatives to foreign market</td>
<td>.4071**</td>
</tr>
<tr>
<td>V44</td>
<td>We have a formal policy</td>
<td>.2894**</td>
</tr>
<tr>
<td>V38</td>
<td>We consistently seek export opportunities</td>
<td>.4795**</td>
</tr>
<tr>
<td>V39</td>
<td>We carry out a systematic research into the possibilities of exporting</td>
<td>.3837**</td>
</tr>
<tr>
<td>V37</td>
<td>We use export marketing research</td>
<td>.4142**</td>
</tr>
</tbody>
</table>

The "willingness to change" factor is composed of four independent variables (Table 8.20). The result indicates that each of these
variables is shown to have a direct association with the level of exporting. In comparison to other attributes of this factor, the management's willingness to change pricing policies attribute is the most important related to the level of exporting. This might indicate that the top management of the firms who are more willing to change pricing policies, are more likely to be those firms at the higher level of exporting.

These attributes acting as a factor are also found to be importantly related to the dependent variable. This result supports previous studies, such as Ortiz-Buonafina (1990), Seifert & Ford (1989), and Cooper & Kleinschmidt (1985). Therefore, it may be concluded that the attributes of this factor (taken separately, or together) are important as determinants of the level of exporting.

Table (8.20)

The Correlation Coefficient Between the Variables of the "Willingness to Change" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V45</td>
<td>Willingness to modify organisational and control system</td>
<td>0.3962**</td>
</tr>
<tr>
<td>V47</td>
<td>Willingness to change pricing policies</td>
<td>0.5646**</td>
</tr>
<tr>
<td>V46</td>
<td>Willingness to adapt product policies</td>
<td>0.2893**</td>
</tr>
<tr>
<td>V48</td>
<td>Willingness to modify distribution system</td>
<td>0.5239**</td>
</tr>
</tbody>
</table>

** = 0.01 significance level  * 0.05 = significance level

(15) The "Education" Factor: Variable Correlations

The "education" factor consists of two types of education; the level of education that each manager completes and proficiency in a foreign language. An examination of the correlation coefficients results in Table (8.21) indicate that each of these is importantly related to a high level of exporting. When compared to other variables
in the same category, proficiency in a foreign language is the most important attribute related to the level of exporting. This might indicate that knowledge of a foreign language is necessary for firms which want to improve their level of exporting. However, previous studies produced mixed results with regard to the relationship between the decision-maker's foreign language skills and the level of exporting. While Schlegelmilch (1986), Khan (1978) and Langston (1976) showed a positive relationship, others such as Simmonds & Smith (1968), Reid (1980) and Moon & Lee (1990) attached little, or no relationship to such skills.

Table (8.21)

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Proficiency in a foreign language</td>
<td>0.4738**</td>
</tr>
<tr>
<td></td>
<td>Level of education</td>
<td>0.3081**</td>
</tr>
</tbody>
</table>

** = 0.01 significance level \* = 0.05 significance level

(16) The "Demographic" Factor: Variable Correlations

The "demographic" factor is composed of two types; age and experience. An examination of Table (8.22) indicates that the manager's experience is the only attribute importantly related to the level of exporting. This might indicate that the wider the experience of the manager in business, the higher the level of exporting is probably. Previous studies reported a strong relationship between the manager's foreign experience and the level of exporting, such as Schlegelmilch (1986), Axinn (1988) and Da Rocha et al. (1990).
The lack of significance for the age attribute might be related to the fact that it might be more important to the firm's decision to become involved in exporting. However, these attributes acting as a factor are found to be importantly related to the dependent variable. This might be due to either the use of the aggregate measure here which may produce more effect on the dependent variable than each variable acting individually, or perhaps the different demographic characteristics of the decision-makers in the firms under investigation.

Table (8.22)

The Correlation Coefficient Between the Variables of the "Demographic" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V115</td>
<td>Experience</td>
<td>.1523**</td>
</tr>
<tr>
<td>V114</td>
<td>Age</td>
<td>-.0028</td>
</tr>
</tbody>
</table>

** = 0.01 significance level  * = 0.05 significance level

(17) The "Government's Export Policies and Assistance" Factor: Variable Correlations

As can be seen in Table (8.23), the "government's export policies and assistance" factor consists of nine variables. The result indicates that 8 of them are correlated with the level of exporting. Among these significant eight variables, the devaluation of the JD and the trade agreement policies are the most important variables associated with the dependent variable. The insignificant variable is found to be the Free Trade Zone facilities. The lack of significance of this variable might indicate that it is either not important as determinant of the level of exporting, or it could be important, but it has not been considered yet, due to the lack of awareness of such a facility among the firms surveyed.
However, the attributes of this factor (taken together) are regarded as important to a high level of exporting. This might indicate that these attributes when taken together are more important as determinants of the level of exporting than when they are acting separately. This might be attributed to either the use of the aggregate measure here (i.e., factor), or perhaps the different types of the industrial firms under investigation. Some of these types might consider these attributes taken together as being critical to their high level of exporting.

Table (8.23)

The Correlation Coefficient Between the Variables of the "Government's Export Policies and Assistance" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V1</td>
<td>Government's trade agreement policy</td>
<td>.2850**</td>
</tr>
<tr>
<td>V2</td>
<td>Export credit discount programme</td>
<td>.2224**</td>
</tr>
<tr>
<td>V3</td>
<td>Duty - drawback facilities</td>
<td>.2701**</td>
</tr>
<tr>
<td>V4</td>
<td>Foreign market information</td>
<td>.2112**</td>
</tr>
<tr>
<td>V5</td>
<td>Managerial services</td>
<td>.1976**</td>
</tr>
<tr>
<td>V6</td>
<td>Trade Zones facilities</td>
<td>.0680</td>
</tr>
<tr>
<td>V7</td>
<td>Devaluation of JD</td>
<td>.3039**</td>
</tr>
<tr>
<td>V8</td>
<td>Temporary - entry facilities</td>
<td>.2859**</td>
</tr>
<tr>
<td>V9</td>
<td>The income tax rebate policy</td>
<td>.2024**</td>
</tr>
</tbody>
</table>

** = 0.01 significance level  * = 0.05 significance level


The "awareness of the government's export policies and assistances" factor consists of 6 variables. An examination of Table (8.24) indicates that each of these variable is shown to have a direct relationship with the level of exporting.

Also, these attributes acting as a factor are found to be important to the level of exporting. Therefore, it may be concluded that the attributes of this factor whether taken separately or together are important as determinants of a high level of exporting.
Table (8.24)
The Correlation Coefficient Between the Variables of the "Awareness of Government's Export Policies" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V10</td>
<td>Knowledge of Free Trade Zone facilities</td>
<td>.1365**</td>
</tr>
<tr>
<td>V11</td>
<td>Awareness of the duty-drawback facilities</td>
<td>.3146**</td>
</tr>
<tr>
<td>V12</td>
<td>Awareness of the export credit programme</td>
<td>.2690**</td>
</tr>
<tr>
<td>V13</td>
<td>Awareness of the managerial services</td>
<td>.2694**</td>
</tr>
<tr>
<td>V14</td>
<td>Knowledge of temporary entry facilities</td>
<td>.2313**</td>
</tr>
<tr>
<td>V15</td>
<td>Awareness of the export services</td>
<td>.1899**</td>
</tr>
</tbody>
</table>

(19) The "Government's Export Facilities Related Problems" Factor: Variable Correlations

The "government's export facilities related problems" factor consists of six variables (Table 8.25). The results indicate that only three variables of them are shown to be related to the level of exporting; the high cost of export documents, lack of commercial attaches, and the bank-guarantee requirement. This might indicate that these variables are the most important that related to a high level of exporting when compared to the other variables of this factor (i.e., the inadequate tax incentive, complexity of the duty-drawback system, and the high duties).

Table (8.25)
The Correlation Coefficient Between the Variables of the "Government's Export Facilities Related Problems" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V59</td>
<td>Inadequate tax incentives</td>
<td>-.0024</td>
</tr>
<tr>
<td>V60</td>
<td>High cost of export documents</td>
<td>-.1471**</td>
</tr>
<tr>
<td>V61</td>
<td>Complexity of the duty drawback system</td>
<td>-.1273</td>
</tr>
<tr>
<td>V62</td>
<td>Lack of Commercial - Attaches</td>
<td>-.1086*</td>
</tr>
<tr>
<td>V63</td>
<td>High duties imposed on spare parts</td>
<td>-.0747</td>
</tr>
<tr>
<td>V80</td>
<td>The bank - guarantees requirement</td>
<td>-.1256*</td>
</tr>
</tbody>
</table>
However, the attributes of this factor as taken together are found to be related to the level of exporting. The possible explanation of this result might be attributed to either of the two reasons; the use of the aggregate measure (i.e., factor) may produce more effect on the level of exporting than depending on each attribute acting separately, or perhaps some of the different types of the industrial firms under investigation might consider these attributes taken together as being critical to their high level of exporting.

(20) The "Government's Export Procedures Related Problems" Factor: Variable Correlations

The "government's export procedures related problems" factor consists of three types of procedures. Namely; customs' export clearances procedures, export licence procedures, and the export inspection procedure. An examination of Table (8.26) indicates that the export inspection procedures is the only variable related to the level of exporting. The lack of significance for the other two variables might indicate that they are more important in determining the firm's decision of whether or not to become involved in export marketing.

These attributes acting as a factor are also found to be not related to the level of exporting. This result might indicate that these attributes whether taken together, or separately are not regarded as important determinants of the level of exporting, except for the export inspection procedures. This might be attributed to the fact that the inspection process is considered to be one of the main problems encountered by manufacturing firms in Jordan. It was concluded through the preliminary interviews (see chapter 3) that the
time and the routine procedures associated with the export inspection process is long and complicated.

Table (8.26)
The Correlation Coefficient Between the Variables of the "Government's Export Procedures Related Problems" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V56</td>
<td>The customs export clearance procedures</td>
<td>-.0274</td>
</tr>
<tr>
<td>V57</td>
<td>The export license procedure</td>
<td>-.0683</td>
</tr>
<tr>
<td>V58</td>
<td>The export inspection process</td>
<td>-.1718**</td>
</tr>
</tbody>
</table>

** = 0.01 significance level  * = 0.05 significance level

(21) The "Foreign Markets Conditions" Factor: Variable Correlations

The "foreign markets conditions" factor includes 5 independent variables (Table 8.27). The results indicate that each of these variables is shown to be related to the level of exporting. When compared to the other variables of this factor, political instability is the most important attribute related to the level of exporting.

These attributes acting as a factor are also found to be related to the level of exporting. Therefore, it may be concluded that the attributes of this factor (taken together or separately) are important as determinants of the level of exporting.

Table (8.27)
The Correlation Coefficient Between the Variables of the "Foreign Markets Conditions" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V94</td>
<td>Difficulty of business practice</td>
<td>-.1628**</td>
</tr>
<tr>
<td>V95</td>
<td>The intensity of competition</td>
<td>-.6235**</td>
</tr>
<tr>
<td>V96</td>
<td>Foreign government restrictions</td>
<td>-.5461**</td>
</tr>
<tr>
<td>V97</td>
<td>Geographical distances</td>
<td>-.4898**</td>
</tr>
<tr>
<td>V98</td>
<td>Political instability</td>
<td>-.7086**</td>
</tr>
</tbody>
</table>

** = 0.01 significance level  * = 0.05 significance level

274
The "Commercial Facilities Related Problems" Factor: Variable Correlations

The "commercial facilities related problems" factor consists of 4 variables (8.28). These independent variables are: lack of information, lack of export credit guarantees, difficulty of access to banking facilities and lack of effective trade companies. The results indicate that each of these variables is related to the dependent variable. When compared to the other variables of this factor, the lack of export credit guarantee system against non-payment risk is the most important attribute related to the level of exporting.

However, the attributes of this factor (taken together) are found to be irrelevant to the level of exporting. This might reveal that these attributes are more relevant to the dependent variable when they are acting separately than together as a factor. It might be due to the different types of the industrial firms under investigation, some of which might consider only some facilities as being critical to their high level of exporting. The lack of export credit guarantee system against non-payment risk might discourage firms to increase their level of exporting beyond a certain point. This result is recommended for further investigation.

Table (8.28)

The Correlation Coefficient Between the Variables of the "Commercial Facilities Related Problems" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V64</td>
<td>Lack of information</td>
<td>-.2091**</td>
</tr>
<tr>
<td>V76</td>
<td>Lack of export credit guarantee against non-payment risk</td>
<td>-.2402**</td>
</tr>
<tr>
<td>V79</td>
<td>Difficulty of obtaining banking facilities</td>
<td>-.1370**</td>
</tr>
<tr>
<td>V86</td>
<td>Lack of effective trade companies</td>
<td>-.1474**</td>
</tr>
</tbody>
</table>
The "raw material related problems" factor is composed of 4 variables, Table (8.29). The result indicates that each of these variables is not related to the level of exporting. Also, the result of these attributes acting as a factor is found to be insignificant. Therefore, it may be concluded that these attributes are not considered important as determinants of the level exporting whether acting as a factor or separately. The possible explanation of this might be attributed to the fact that these attributes are more important in determining whether the firm would become involved in exporting rather than the level of exporting.

Table (8.29)

The Correlation Coefficient Between the Variables of the "Raw Material Related Problems" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V83</td>
<td>The Difficulty of obtaining raw material</td>
<td>-.0522</td>
</tr>
<tr>
<td>V84</td>
<td>The low quality of raw material</td>
<td>-.0023</td>
</tr>
<tr>
<td>V85</td>
<td>The shortage of raw material</td>
<td>-.0439</td>
</tr>
<tr>
<td>V92</td>
<td>The high price of raw material</td>
<td>-.0939</td>
</tr>
</tbody>
</table>

** = 0.01 significance level  * 0.05 = significance level

The "export costs" factor consists of 4 types of costs (Table 8.30). These four types are; cost of communication, cost of labour skills, warehouse facilities, and interest rate. The result indicates that only two variables are related to the dependent variable. These two variables are; cost of labour skills and high interest rates. This might indicate that these two variables are more important to the high level of exporting when compared to the other variables of this.
factor, i.e., the cost of communication and the cost of warehouse facilities.

However, these attributes acting as a factor are found to be not related to the level of exporting. This might due be to the different types of the industrial firms under investigation. Some of these types might regard only some attributes as being critical to their high level of exporting.

Table (8.30)

The Correlation Coefficient Findings Between the Variables of the "Export Costs" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V89</td>
<td>High cost of communication</td>
<td>-.0571</td>
</tr>
<tr>
<td>V90</td>
<td>High cost of labour skills</td>
<td>-.1469**</td>
</tr>
<tr>
<td>V91</td>
<td>High cost of obtaining warehouse facilities</td>
<td>-.0936</td>
</tr>
<tr>
<td>V101</td>
<td>High interest rate</td>
<td>-.1869**</td>
</tr>
</tbody>
</table>

** 0.01 significance level  * 0.05 significance level

(25) The "Physical Distribution" Factor: Variable Correlations

The "physical distribution" factor is composed of six variables (Table 8.31). The result indicates that each of these variables is importantly related to the level of exporting variable. However, these variables acting as a factor is found to be irrelevant to the dependent variable. This might be attributed to the different types of the industrial firms under investigation, some of which might consider only some attributes of this factor as being important to their high level of exporting.

Therefore, it may be concluded that these variables are more important to the dependent variable level of exporting when they are taken separately than when they are taken together.
Table (8.31)

The Correlation Coefficient Between the Variables of the "Physical Distribution" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V81</td>
<td>Difficulty of obtaining shipping facilities</td>
<td>-.1340**</td>
</tr>
<tr>
<td>V82</td>
<td>Difficulty of obtaining warehouses facilities</td>
<td>-.1099**</td>
</tr>
<tr>
<td>V87</td>
<td>High freight of transportation</td>
<td>-.1895**</td>
</tr>
</tbody>
</table>

** 0.01 significance level  * 0.05 significance level

(26) The "Domestic Market Conditions" Factor: Variable Correlations

The "domestic market conditions" factor consists of two variables; intense competition and the high domestic demand. An examination of Table (8.32) shows that each of them is related to the level of exporting.

Also, these two variables acting as a factor are found to be importantly related to the dependent variable level of exporting. Therefore, it may be concluded that these variables (taken separately, or together) are important as determinants of the level of exporting.

Table (8.32)

The Correlation Coefficient Between the Variables of the "Domestic Market Conditions" Factor and the Level of Exporting

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>V99</td>
<td>Intense competition</td>
<td>-.6926**</td>
</tr>
<tr>
<td>V100</td>
<td>The high domestic demand</td>
<td>-.6620**</td>
</tr>
</tbody>
</table>

** = 0.01 significance level  * = 0.05 significance level
Summary and Conclusions

This chapter presents the main findings related to the study's objectives and testing relevant hypotheses (H01, H02, H03 H04 and H05) by using the Pearson correlation coefficient and the stepwise multiple regression. The findings can be summarized as follows:

(a) Of 26 explanatory independent factors, 18 factors were each found to be significantly associated with the level of exporting. These factors were: (1) "Foreign market conditions related problems", (2) "Willingness to change" (3) "Demographic" (4) "Commitment to export related activities", (5) "Size of the firm", (6) "Managerial aspirations", (7) "Operational obstacles" (8) "Market competitive strengths", (9) "Government's export policies and assistances", (10) "Business experience", (11) "Export objectives" (12) "Awareness of government's export policies and assistance" (13) "Product characteristics" (14) "Perceived risk", (15) "Government's export facilities related problems", (16) the "Domestic market conditions related problems", (17) "Education", and (18) "Export Benefits".

(b) The firm's internal environmental dimension acting alone (i.e., all 16 factors, acting together) was found to be significantly associated with a high level of exporting. The most important factors of the regression equation were: (1) "Willingness to change", (2) "Commitment to export related activities", and (3) "Size of the firm". The adjusted R square result indicated that about 49% of the variation on the dependent variable level of exporting could be explained by the above significant factors, acting together.

(c) The firm's external environmental dimension acting alone (i.e., all 10 factors, acting together) was found to be significantly related to a high level of exporting. The most important factors of
A Summary Review of the Correlation Coefficients Between the Variables Constituting Each Independent Factor (Taken Separately and Together) and the Level of Exporting

<table>
<thead>
<tr>
<th>The Independent Factors</th>
<th>No. of Variables</th>
<th>Taken Together</th>
<th>Taken Separately</th>
</tr>
</thead>
<tbody>
<tr>
<td>01. Managerial aspirations</td>
<td>6</td>
<td>Signif.</td>
<td>All signif.</td>
</tr>
<tr>
<td>02. Operational obstacles</td>
<td>8</td>
<td>Signif.</td>
<td>All signif.</td>
</tr>
<tr>
<td>03. Perceived risk</td>
<td>5</td>
<td>Signif.</td>
<td>All signif.</td>
</tr>
<tr>
<td>04. Export objectives</td>
<td>5</td>
<td>Signif.</td>
<td>All signif.</td>
</tr>
<tr>
<td>05. Export benefits</td>
<td>4</td>
<td>Signif.</td>
<td>2 signif.</td>
</tr>
<tr>
<td>06. Export barriers</td>
<td>3</td>
<td>Insignif.</td>
<td>All insignif.</td>
</tr>
<tr>
<td>07. Competitive situation</td>
<td>2</td>
<td>Insignif.</td>
<td>All insignif.</td>
</tr>
<tr>
<td>08. Competitive strengths</td>
<td>5</td>
<td>Signif.</td>
<td>All signif.</td>
</tr>
<tr>
<td>09. Size of the firm</td>
<td>3</td>
<td>Signif.</td>
<td>All signif.</td>
</tr>
<tr>
<td>10. Technological strengths</td>
<td>3</td>
<td>Insignif.</td>
<td>All insignif.</td>
</tr>
<tr>
<td>12. Product characteristics</td>
<td>3</td>
<td>Signif.</td>
<td>All signif.</td>
</tr>
<tr>
<td>13. Commitment to export...</td>
<td>8</td>
<td>Signif.</td>
<td>All signif.</td>
</tr>
<tr>
<td>14. Willingness to change</td>
<td>4</td>
<td>Signif.</td>
<td>All signif.</td>
</tr>
<tr>
<td>15. Education</td>
<td>2</td>
<td>Signif.</td>
<td>All signif.</td>
</tr>
<tr>
<td>16. Demographic</td>
<td>2</td>
<td>Signif.</td>
<td>1 signif.</td>
</tr>
<tr>
<td>17. Government's export</td>
<td>9</td>
<td>Signif.</td>
<td>8 signif.</td>
</tr>
<tr>
<td>18. Awareness of the government export...</td>
<td>6</td>
<td>Signif.</td>
<td>All signif.</td>
</tr>
<tr>
<td>19. Government export facilities...</td>
<td>6</td>
<td>Signif.</td>
<td>3 signif.</td>
</tr>
<tr>
<td>20. Government export procedures...</td>
<td>3</td>
<td>Insignif.</td>
<td>1 signif.</td>
</tr>
<tr>
<td>21. Foreign market conditions</td>
<td>5</td>
<td>Signif.</td>
<td>All signif.</td>
</tr>
<tr>
<td>22. Commercial facilities...</td>
<td>4</td>
<td>Insignif.</td>
<td>All signif.</td>
</tr>
<tr>
<td>23. Raw material problems</td>
<td>4</td>
<td>Insignif.</td>
<td>All insignif.</td>
</tr>
<tr>
<td>25. Physical distribution</td>
<td>3</td>
<td>Insignif.</td>
<td>All signif.</td>
</tr>
<tr>
<td>26. Domestic market conditions</td>
<td>2</td>
<td>Signif.</td>
<td>All signif.</td>
</tr>
</tbody>
</table>

Significance Levels = 0.01 & 0.05
regression equation were: (1) "Foreign markets conditions", (2) "Government's export policies and assistances", (3) "Awareness of the government's export policies", (4) "Export costs" and (5) the Domestic market conditions". The adjusted R square result indicated that about 52% of the variation of the level of exporting could be explained by those five significant factors.

(d) Comparing between (b) and (c), it may be concluded that the variation of the level of exporting is more explained by factors outside the boundary of the firm, i.e., the firm's external environmental dimension than its internal environmental dimension.

(e) The combination of the two dimensions, (i.e., all 26 factors, acting together) was found to be significantly related to a high level of exporting. There were 7 factors included here in the regression equation: (1) "Foreign markets conditions" (2) "Willingness to change" (3) "Commitment to export related activities" (4) "Size of the firm" (5) "Domestic market conditions" (6) "Business experience", and the (7) "Government export facilities related problems". The adjusted R square indicated that about 64% of the variations on the dependent variable could be explained by the above factors.

(f) The integration approach of the internal and external dimensions not only comes up with a better explanation of the variation of the dependent variable level of exporting, but also comes up with more number of determinants in comparison to each dimension acting alone.

(i) The results of the relationship between the variables constituting each independent factor and the level of exporting were presented and discussed. A summary review of these findings is given in Table (8.33).
CHAPTER NINE

THE DETERMINANTS OF EXPORT BEHAVIOUR:
EXPORTERS VS. NON EXPORTERS

Introduction

9.1 Testing the Research Hypotheses (H06 To H010)

9.1.1 Testing the Discriminant Function / Factors: Chi - Square and Univariate F Ratio

9.1.2 Testing the Improvement in Predicting Group Membership: The McNemar Test

9.2 Identification and Prediction of Export Behaviour: Interpretation of DFA

9.2.1 Comparative Analysis Between the Internal and External Dimensions in Respect of Export Behaviour

9.2.2 An Integration Approach to Identify and to Predict Exporter Status

9.2.3 Validation of the Prediction of Export Behaviour (Exporter's and Non - Exporter's Group Membership)

9.2.4 The Relative Important of the Predictor Factors in Terms of Their Contributions

9.3 The Differences Between Exporters and Non - Exporters: Variable Findings

9.4 The Interpretation of the Variable Findings

Summary and Conclusions
CHAPTER NINE

THE DETERMINANTS OF THE EXPORT BEHAVIOUR: EXPORTERS VS. NON-EXPORTERS

Introduction

In Chapter Eight the main findings pertaining to the determinants of the level of exporting (the percentage of export volume) were analysed and discussed by using the Pearson correlations coefficients and the stepwise multiple regression analysis.

In this Chapter, the 26 factors* and associated variables identified in Chapter 7 will be analyzed again for the following purposes:

- To find out whether or not a significant difference exists between the exporters and non-exporters in terms of the internal and external environmental measures, (i.e., 26 factors).
- To predict group membership of the export behaviour on the basis of these 26 factors.
- To identify the degree of association between the export behaviour (i.e., exporters and non-exporters) and the internal environmental measures, (i.e., 16 factors).
- To identify the degree of association between the export behaviour (i.e., exporters and non-exporters) and the external environmental measures, (i.e., 10 factors).
- To discover whether the addition of the external environmental measures (i.e., 10 factors) to the internal environmental measures (i.e., 16 factors) might improve the prediction of the group membership, (i.e., classification).
- To find out whether the two groups (i.e., exporters and non-exporters) are different in terms of the variables comprising each factor.

The statistical analysis techniques used are; the discriminant analysis functions, Chi-Square, F-test, McNemar test, and the T-test. Factors and variables will be analyzed and discussed respectively.

* A list of the factors is given in Tables (7.9) and (7.10), Chapter 7
9.1 Testing the Research Hypotheses (i.e., H05 to H010)

9.1.1 Testing the Significant of Discriminant Function / Factors: Chi-Square and Univariate F Ratio

Before attempting to interpret the output of DFA, it was thought that it would be better to check on its statistical significance. A statistically significant function means that there is a meaningful differentiation of the groups on the discriminant score (Churchill, 1983). For testing the solution of DFA in this study, two key statistics were used: Chi-square test and univariate F ratio.

The chi-square test was employed to determine the significance of the discriminant function for each dimension (i.e., internal dimension, external dimension, and both), or otherwise the distinction between exporter's group and non-exporter's group in terms of their internal and external environmental dimensions. For testing the significance of each discriminator (or predictive factor), the univariate F statistics was used as well.

The following tested hypotheses are those pertaining to the significance of the discriminant function of the components of the internal environmental dimension (16 factors, taken together), and the components of the external environmental dimension (10 factors, taken together).

The null hypotheses were stated as follows:

H0(6): There is no significant difference between the two groups (i.e., exporters and non-exporters) in terms of their internal environmental measures, taken together.

H0(7): There is no significant differentiation between the two groups (i.e., exporters and non-exporters) on the basis of their external environmental measures, taken together.
For hypothesis HO(6), the computed chi-square is (443.54) with 13 degrees of freedom. The obtained chi-square value exceeds the critical value (34.54) at .000 (or far beyond .001 level) Table (9.4). The decision, therefore, is to reject the null hypothesis HO(6), and conclude that the discriminant function of the components of the internal environmental dimension is statistically significant. Stated somewhat differently, the internal environmental measures (i.e., "managerial aspirations", "willingness to change", "business experience", "export benefits", "market competitive strengths", "commitment to export related activities", "perceived risk", "technological strengths", "demographic", "product characteristics", "size of the firm", "export objectives") do discriminate between exporters and the non-exporters.

With regard to hypothesis HO(7), the computed value of chi-square is (214.82) with 7 degree of freedom (see the output of DFA in Table 9.4). The obtained chi-square value exceeds its critical value (20.98) with .000 (or too far beyond .001 level of significance). Therefore, the decision is to reject the null hypothesis HO(7), and conclude that the discriminant function of the components of the external environmental dimension is statistically significant, i.e., the "foreign market conditions", "awareness of government's export policies and assistance", the "government's export policies and assistance", "commercial facilities related problems", "export costs", and "raw material related problems" do distinguish the exporter's group from non-exporter's group.

In addition to the chi-square test, the univariate F statistics test was employed to determine the significance level of each predictor independent factor included in each discriminant function, the null hypotheses were stated as below:
HO(8): There is no significant differentiation (i.e., variation) between the two groups (i.e., exporters and non-exporters) in terms of their internal environmental dimension measures (mentioned above), taken separately.

HO(9): There is no significant determination (i.e., variation) between the two groups (i.e., exporters and non-exporters) in terms of their external environmental dimension measures, taken separately.

Tables 9.1 and 9.2 summarize the computed value of F ratio and its significance level for each predictor factor included in the two discriminant functions of the internal and external environment, respectively. A closer look at the computed univariate F value in Table (9.1) indicates that "managerial aspirations", "willingness to change", "commitment to export related activities", "business experience", "market competitive strengths", "perceived risk", "technological strengths", "export objectives", "operational obstacles", and "demographic" factors are found to be significant beyond .001 or .01 level. However, the "education", "export barriers", "competitive situations", "product characteristics", and "export benefits" factors are found to be insignificant.

Table (9.2) shows that, out of 10 external environmental factors included in the analysis, 8 are found to be significant beyond .001 or 0.05. Only 2 external factors are found to be insignificant. Therefore, one should reject the null hypothesis HO(9) with respect to those 8 significant factors, but accept HO(9) regarding the others. Each of these 8 external factors (i.e., the "government's export policies and assistance", "awareness of the government's export policies and assistance", the "government's export facilities related problems", "government export procedures", "foreign market conditions")
Table (9.1)

Univariate F Value and Its Significant Level in the DFA of the Internal Environmental Dimension: Taken Separately

<table>
<thead>
<tr>
<th>Internal - Environmental Independent Factors</th>
<th>Univariate F Value</th>
<th>Sign. Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Managerial aspirations</td>
<td>269.40</td>
<td>0.0000</td>
</tr>
<tr>
<td>2. Operational obstacles</td>
<td>38.83</td>
<td>0.0000</td>
</tr>
<tr>
<td>3. Perceived risk</td>
<td>14.43</td>
<td>0.0002</td>
</tr>
<tr>
<td>4. Export objectives</td>
<td>88.67</td>
<td>0.0000</td>
</tr>
<tr>
<td>5. Export benefits</td>
<td>3.36</td>
<td>0.0675</td>
</tr>
<tr>
<td>6. Export barriers</td>
<td>0.28</td>
<td>0.5923</td>
</tr>
<tr>
<td>7. Competitive situation</td>
<td>2.05</td>
<td>0.1529</td>
</tr>
<tr>
<td>8. Competitive strengths</td>
<td>79.28</td>
<td>0.0000</td>
</tr>
<tr>
<td>9. Size of the firm</td>
<td>3.72</td>
<td>0.0545</td>
</tr>
<tr>
<td>10. Technological strengths</td>
<td>7.64</td>
<td>0.0060</td>
</tr>
<tr>
<td>11. Business experience</td>
<td>95.56</td>
<td>0.0000</td>
</tr>
<tr>
<td>12. Product characteristics</td>
<td>1.96</td>
<td>0.1622</td>
</tr>
<tr>
<td>13. Commitment to export related activities</td>
<td>31.80</td>
<td>0.0000</td>
</tr>
<tr>
<td>14. Willingness to change export marketing policies</td>
<td>228.20</td>
<td>0.0000</td>
</tr>
<tr>
<td>15. Education</td>
<td>2.30</td>
<td>0.1304</td>
</tr>
<tr>
<td>16. Demographic</td>
<td>101.80</td>
<td>0.0000</td>
</tr>
</tbody>
</table>
### Table (9.2)

Univariate F Value and Its Significant Level in the DFA of the External Environmental Dimension: Taken Separately

<table>
<thead>
<tr>
<th>External - Environmental Independent Factors</th>
<th>Univariate F Value</th>
<th>Sign. Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Government's export policies and assistance</td>
<td>70.2</td>
<td>0.0000</td>
</tr>
<tr>
<td>2. Awareness of the government export assistance</td>
<td>70.6</td>
<td>0.0000</td>
</tr>
<tr>
<td>3. Government's export facilities related problems</td>
<td>4.6</td>
<td>0.0326</td>
</tr>
<tr>
<td>4. Government export procedures</td>
<td>6.0</td>
<td>0.0147</td>
</tr>
<tr>
<td>5. Foreign market conditions related problems</td>
<td>77.5</td>
<td>0.0000</td>
</tr>
<tr>
<td>6. Commercial facilities related problems</td>
<td>21.8</td>
<td>0.0000</td>
</tr>
<tr>
<td>7. Raw material related problems</td>
<td>4.2</td>
<td>0.0416</td>
</tr>
<tr>
<td>8. Export Costs related problems</td>
<td>8.0</td>
<td>0.0048</td>
</tr>
<tr>
<td>9. Physical distribution related problems</td>
<td>0.5</td>
<td>0.4706</td>
</tr>
<tr>
<td>10. The domestic market conditions</td>
<td>0.2</td>
<td>0.6705</td>
</tr>
</tbody>
</table>
"commercial facilities related problems", "raw material related problems", and the "export costs") distinguish the exporter's group from the non-exporter's group.

9.1.2 Testing the Improvement in Predicting Group Membership

The McNemar test for the significance of change was used to determine the significant improvement in the classification of group's membership (i.e., exporter's group and non-exporter's group) after adding all the 10 external environmental factors to the other 16 factors of the internal environment in the DFA model. It was hypothesized that:

H0(10): There is no significant improvement in the discrimination (i.e., variation) between the two groups (i.e., exporters and non-exporters) after the addition of external environmental measures (i.e., 10 factors) to the internal environmental measures (i.e., 16 factors) in the prediction model of DFA.

Based upon the classification results obtained from the first (internal dimension) and second (external dimension) runs of DFA, individual cases are tabulated as to whether they are correctly or incorrectly classified in the early discriminant function run (i.e., internal environmental measures only) and the later discriminant function run (i.e., external environmental measures combined with internal environmental measures) in Table (9.3).

Referring to Table (9.3), those individuals who have the same results in both run (cell A & D) should be ignored since they show no change (or improvement). Cell B includes those individuals who were incorrectly classified in the early run and correctly classified in the later run, and cell C includes individuals who were correctly classified in the early run and incorrectly classified in the later.
Table (9.3)

Fourfold Table of McNemar Test

<table>
<thead>
<tr>
<th></th>
<th>Early run of DFA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Internal dimension only)</td>
</tr>
<tr>
<td>Correct</td>
<td>Incorrect</td>
</tr>
<tr>
<td>Correct</td>
<td>356 (A)</td>
</tr>
<tr>
<td>Incorrect</td>
<td>5 (C)</td>
</tr>
</tbody>
</table>

Therefore, the chi-square distributions for change is

\[
x^2 = \frac{((B - C) - 1)^2}{B + C}
\]

Df = 1

Naturally the null hypothesis of no improvement would only be rejected, if more individuals became correctly classified after the addition of external predictors (i.e., B > C). Therefore, if B > C and the computed value of \(x^2\) is greater than its critical value within 1 degree of freedom at .05 level of significance, we reject the Ho(9) and conclude that the addition of a predictor in the later run of DFA (i.e., external environmental measures) has improved the solution.

By applying the above formula, the

\[
x^2 = \frac{(16 - 5 - 1)^2}{21} = 4.76
\]

The obtained \(x^2\) value of (4.76) with 1 degree of freedom exceeds its critical value (3.84) at .05 significance level. As a result, the decision is to reject the null hypothesis, and to conclude that there was significant change or improvement in the classification of group membership after adding the 10 independent factors of the external environment to the 16 independent factors of the internal environment.
9.2 Identification and Prediction of Export Behaviour: Interpretation of DFA

9.2.1 Comparative Analysis Between the Internal and External Dimensions in Respect of Export Behaviour

Various attempts have been made in the literature to describe and predict export behaviour, (e.g., Cavusgil and Naor 1987, Schlegelmilch 1983, Burton and Schlegelmilch 1987 and Barker & Kaynak 1992, etc.). These studies employed internal environmental variables as predictors of export behaviour. However, external environmental variables have received little attention in classification of exporters from non-exporters.

Therefore, one of the aims of the present study is to classify and predict the groups' membership (i.e., exporters and non-exporters) on the basis of those two environmental dimensions (i.e., 16 internal factors and 10 external factors, taken separately) and to compare between those two dimensions in terms of their predictive power.

In order to accomplish this objective, the 16 independent factors of the internal environmental dimension and the 10 independent factors of the external environmental dimension were submitted to the stepwise DFA computer programme in SPSSX. Two stepwise runs of DFA were performed on the factors of internal and external environments respectively. Table (9.4) contains the summary results of the two separate discriminant functions of internal and external factors.

The eigenvalue (2.35 and 0.75) and associated correlation coefficient (0.83 and 0.65) in Table (9.4) denote the relative degree of relationship between each type of the two dimensions (i.e., internal and external) and export behaviour (i.e., exporters vs. and non-exporters). The internal dimension has a higher degree of association with export behaviour than the external dimension (Table 8.4). Moreover, the low Wilks' lambda (0.30) and the high value of chi
- square (443.54) associated with the first discriminant function indicate that the internal dimension and export behaviour are highly related.

In addition, the classification results obtained from each discriminant function helps to visualize exactly how accurate each discriminant function was in predicting exporter's and non-exporter's group membership. By looking at Table (9.4), it can be seen that the first discriminant function (internal dimension) has correctly classified (95.84%) of the respondents into two discriminant groups, whereas the second discriminant function (external dimension) is correctly classified (83.38%).

<table>
<thead>
<tr>
<th>Results</th>
<th>Run * 1 Internal Dimension</th>
<th>Run * 2 External Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eigenvalue</td>
<td>2.24811</td>
<td>0.76133</td>
</tr>
<tr>
<td>Canonical correlation</td>
<td>0.8319426</td>
<td>0.6574558</td>
</tr>
<tr>
<td>coefficient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wilk's lambda</td>
<td>0.3078714</td>
<td>0.5677519</td>
</tr>
<tr>
<td>Chi - squared</td>
<td>443.54</td>
<td>214.82</td>
</tr>
<tr>
<td>Degree of freedom</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td>Level of significance</td>
<td>0.0000</td>
<td>0.0000</td>
</tr>
<tr>
<td>Cases correctly classified</td>
<td>95.84%</td>
<td>83.38%</td>
</tr>
<tr>
<td>Perfectly accurate</td>
<td>17.84</td>
<td>5.38</td>
</tr>
<tr>
<td>classification</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

One way to evaluate the classification from a discriminant function is to compare it to the classification which one would expect by chance (Hair et al. 1987). The question is, however, how much better than chance should the accuracy of classification be? One practical approach recommended by Hair et al. (1987) suggests that in order to be useful the classification accuracy must be at least 25.0% greater than chance.
The probabilities associated with chance, in each discriminant function in the research, are given by the following formula:

\[ C = P^2 + (1 - P)^2 \]

Where:

\( C \) = chance
\( P \) = proportion of cases in group 1
\( 1 - P \) = proportion of cases in group 2

By applying the above formula (in any of the two discriminant function) then:

\[ C = \left( \frac{272}{387} \right)^2 + \left( 1 - \frac{272}{387} \right)^2 = 53% \]

Based upon the Hair et al. approach, this means that a perfectly acceptable classification level would be at least 25% greater than 53% of the achieved by chance 66.25%. In the discriminant function of the internal dimension, the classification accuracy level is 29.57% greater (i.e., 95.84% - 66.25% = 29.57%). Whilst the perfectly acceptable level is 17.13% greater (i.e., 83.38% - 66.25% = 17.13%) in the discriminant function of the external dimension.

Further comparative results between internal and external dimensions can be obtained from the all groups' histogram of the two separate discriminant analysis functions. Figures (9.1) and (9.3) give a clear picture of the differentiation between the two groups according to their internal and external dimensions respectively. Group G1 (exporters) and group G2 (non-exporters) are well separated on the basis of internal dimension (see Figure 9.1), but they are less separate on the basis of the external dimension (see Figure 9.2).

This comparative analysis between the external and internal environmental dimensions in relation to export behaviour supports the

\* The survey result indicates that out of 387 firms, 115 firms are not exporters.
previous export behaviour studies in that the firm's internal environmental measures are more critical to its decision of whether or not to become involved in exporting, (e.g., Cavusgil and Nevin 1981). However, the firm's external environmental measures were found to be more critical to its level of exporting (see Chapter Eight).

9.2.2 An Integration Approach to Identify and to Predict Exporter Status

It was decided to combine the two environmental dimensions (i.e., 26 factors) together in order to gain more insight into export behaviour and to understand better the differentiation between exporters and non-exporters.

Figure (9.1)
All Groups Stacked Histogram: Internal Dimension (Run * 1)  
G1 = Exporters  G2 = Non-Exporters
Such a combination of the two useful dimensions provides a unique and important view of export behaviour and it allows the researcher to identify the whole firm's environment rather than isolated fragments. Accordingly, it was decided to combine the factors of the two dimensions (i.e., 26 factors) included in the analysis so as to identify and predict export behaviour.

The DFA programme was performed in a separate run on the two dimensions (combined together) to predict the group's membership. The results obtained from the third run of DFA show that integration improves the final solution in terms of the degree of association, the discrimination between exporters and non-exporters and the predictive power of group membership (see Table 9.5).

<table>
<thead>
<tr>
<th>Function</th>
<th>Eigenvalue</th>
<th>Canonical Correlation</th>
<th>Wilk's Lambda</th>
<th>Chi-Square</th>
<th>DF</th>
<th>Sign.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.8</td>
<td>.86</td>
<td>.26</td>
<td>493</td>
<td>21</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Actual Group</th>
<th>No. of Cases</th>
<th>Classification Matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Predicted Group</td>
<td>G1</td>
</tr>
<tr>
<td>Group (1) exporters</td>
<td>270</td>
<td>265</td>
</tr>
<tr>
<td>Group (2) non-exporters</td>
<td>113</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>383</td>
<td>270</td>
</tr>
</tbody>
</table>

Percent of "Group" cases correctly classified 97.39%
Figure (9.2)

All Groups Stacked Histogram: External Dimension
(Run * 2)

G1 = Exporters    G2 = Non-Exporters

 canonical discriminant function 1

Figure (9.3)

All Groups Stacked Histogram: Combination
(Run * 3)

G1 = Exporters    G2 = Non-Exporters

 canonical discriminant function 1

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In the third discriminant function, the degree of relationship between all the predictors (i.e., internal and external factors) and export behaviour (i.e., exporters vs. non-exporters) is increased due to the improvement in the eigenvalue (2.8) and the associated Canonical correlation (0.86). The ability of the discriminant function to differentiate between the two groups (i.e., exporters and non-exporters) is also improved because of the reduction in the value of Wilk's lambda to 0.26. Equally important is the improvement in the predictive power of the discriminant function which is increased to about 97.39% (see Table 9.5). The classification obtained from the third discriminant function, integrated approach exceeds 19.39% the perfectly accurate level of Hair et al. (i.e., 97.39% - 66.25% = 31.14%)

The combination of the internal and external predictors, in one discriminant function (Run 3), indicated that 98.1% of exporters and 95.6% of non-exporters are correctly assigned to their respective groups. Furthermore, this function also showed significant improvement in the discrimination between the two groups, (see the result of McNemar test section 9.1.2, Chapter 9).
9.2.3 Validation of the Prediction of Export Behaviour (Exporter's and Non-Exporter's Group Membership)

The question of predictive power is important. As it has been reported earlier, "relative-to-chance" is considered an important way of checking the accuracy of the classification results obtained from two groups DFA. This procedure is commonly used to test whether the proportion of correctly classified cases in the sample is significantly different from the correct proportion that would be expected by chance. However, the "relative-to-chance" measure will be biased if it is applied to the same sample of data used to estimate the discriminant function coefficient. This bias is due to the sampling means of the population (Frank & Massy 1965); "the direction of the bias is to show greater predictive power in classification that actually exists among the true populations. Its magnitude will decrease as the sample size becomes larger".

In order to check the validity of the prediction of power (classification) of export behaviour, two methods of discriminant validity were used, namely, the Split half and the Jackknife method.

(1) Split Half Method

In order to reduce the bias caused by sampling error and then, increase the efficiency of predictive power in DFA, one could split the original sample and use one part for analysis (i.e., analysis sample) and the other for validation (i.e., validation sample). This approach uses the discriminant coefficients derived from the analysis sample to predict group membership for each number of the validation sample (Tabachnick and Fidell 1983).

Therefore, it was decided to check on the validation prediction of exporter's and non-exporter's group membership obtained from each
DFA run. The key steps in conducting the validation procedures are as follows (Frank and Massy 1965):

(1) the original sample (387 cases) was split into two subsamples on the basis of odd and even numbers: one for analysis and the other for validation,

(2) the analysis sample used to determine the discriminant coefficients and to generate a classification table,

(3) using the discriminant coefficients estimated from the analysis sample, predictor of group membership were made for each member,

(4) the differences between the classification of each sample are perfectly acceptable level (i.e., 66.25%, see section 9.2.1).

(5) the above steps were applied to the three set of data: internal, external, and combined respectively.

The results of the validation are shown in Table (9.6), and they confirm our initial findings in that the internal environmental dimension is better than the external dimension in terms of predicting group membership.

Table (9.6)
Validation of the Discriminant Functions: Comparison of the Analysis and validation Sample

<table>
<thead>
<tr>
<th>Discriminant function</th>
<th>Analysis sample</th>
<th>Validation sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% of correct classification</td>
<td>&gt; or &lt; H &amp; A's</td>
</tr>
<tr>
<td>Internal</td>
<td>94.79</td>
<td>+28.54</td>
</tr>
<tr>
<td>External</td>
<td>80.73</td>
<td>+14.48</td>
</tr>
<tr>
<td>Both</td>
<td>97.38</td>
<td>+31.13</td>
</tr>
</tbody>
</table>

Referring to Table (9.6), the percentage of correct classification analysis sample was less than its counterpart in the validation sample for each discriminant function because of the effects of sampling error. However, the discriminant function of the internal measures is still better than the external dimension measures in predicting group membership.

(2) Jacknife Method

For further confirmation of the earlier results, the Jacknife method was also applied to validate the discriminant function of each of the three DFA runs. There is an evidence that the Jacknife method is superior to other discriminant validation methods including the split-sample approach (Eisenbeis 1977). Since the Jacknife method, unlike the other methods, makes use of all the available data without any serious bias in the estimating error rate (Dillon & Goldstein 1984).

Using the Jacknife method to validate a discriminant function involves leaving out each of the cases in turn, calculating the function based on $n_1 + n_2 - 1$ cases, and then classifying the left-out cases. This process is repeated until all the cases are classified (Eisenbeis 1977). Since that the case which is being classified is not included in the calculation of the discriminant function, the method yields almost unbiased estimates of the misclassification probabilities (Dillon and Goldstein 1984).

In order to validate each of our three discriminant functions, the Jacknife method was applied, to the same data, using the BMDP compute package series number P7M. Table (9.7) presents a comparison between the two hit ratio results obtained from the DFA and the Jacknife method with respect to each of the three sets of discriminant functions (i.e., internal, external, and combined).

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Table (9.7)
A Comparison Between the Hit Ratios of the DFA and the Jacknife Method

<table>
<thead>
<tr>
<th>Discriminant Function</th>
<th>The Hit Ratios of the DFA Functions</th>
<th>The Hit Ratios of the Jacknife</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal</td>
<td>94.5 %</td>
<td>93.8 %</td>
</tr>
<tr>
<td>External</td>
<td>83.4 %</td>
<td>82.3 %</td>
</tr>
<tr>
<td>Both</td>
<td>97.7 %</td>
<td>96.6%</td>
</tr>
</tbody>
</table>

Table (9.6) shows that the percentage of correct classification of the Jacknife is slightly less than the corresponding percentages which were obtained from the DFA function in three runs (i.e., internal, external, and both). On this ground, it could be concluded that each of the three discriminant functions is a valid model in discriminating between the two groups (i.e., exporters and non-exporters).

The findings of the two methods (i.e., split-half and Jacknife) provide concrete evidence on the ability of internal combined with external, to profile and predict export behaviour. Also, the combination of both measures of export behaviour, in one discriminant function, produces a valid classification (see Tables 9.6 and 9.7).

9.2.4 The Relative Important of the Predictor Factors in Terms of Their Contributions

One of the most interesting results of DFA is the relative importance of the predictor factors in terms of their contributions to discriminate between the two groups under investigation. Table (9.8) lists the most important external and internal predictors of export behaviour. It also shows the standardized discriminant coefficients and group means along these predictor factors.
Interpreting these results is straightforward, the higher the discriminant coefficient is, the more important the factor is as a discriminator between the two groups (i.e., exporters and non-exporters). The sign of the coefficients associated with the predictor factor indicates the direction of their relationship to the dependent variable. Group means are generally used to identify how the groups differ in pairwise fashion in each of the predictor in the analysis (Perreault et al. 1979). The relative importance of the factors of each dimension is presented and discussed here respectively:

(1) The Internal Dimension Factors

Examination of the absolute value of the standardized discriminant coefficients listed in Table (9.8) reveals that the most important internal factors which distinguish the exporter's group from the non-exporter's group in their order of importance are: "managerial aspirations" (0.56), "export benefits" (0.49) "business experience", (0.40), "willingness to change" (0.39), "perceived risk" (0.22), "market competitive strengths" (0.21), "technological strengths" (0.16), "size of the firm" (0.14), "product characteristics" (0.12), "export objectives" (0.12), "demographic" (0.12), "commitment to export related activities" (0.11), "education" (0.08), and "operational obstacles" (0.07).

Looking at Table (9.8), we observe that the first factor (i.e., the "managerial aspirations") is regarded as the most important one related to export behaviour. The group means' results indicate that the exporter's group attached more importance to this factor than the non-exporter's group. This result is inconsistent with export behaviour studies, such as, Bilkey and Tesar (1977) & Cavusgil and Naor (1987).
Table (9.8)

Group Means and Standardized Discriminant Coefficient

<table>
<thead>
<tr>
<th>Independent factor</th>
<th>Group Means</th>
<th>Standardized Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G1</td>
<td>G2</td>
</tr>
<tr>
<td>(1) Internal Dimension Factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>01. Managerial aspirations</td>
<td>0.42</td>
<td>-0.98</td>
</tr>
<tr>
<td>02. Export benefits</td>
<td>-0.07</td>
<td>0.14</td>
</tr>
<tr>
<td>03. Business experience</td>
<td>0.28</td>
<td>-0.69</td>
</tr>
<tr>
<td>04. Willingness to change</td>
<td>0.39</td>
<td>-0.94</td>
</tr>
<tr>
<td>05. Perceived risk</td>
<td>-0.11</td>
<td>0.30</td>
</tr>
<tr>
<td>06. Competitive strengths</td>
<td>0.27</td>
<td>-0.64</td>
</tr>
<tr>
<td>07. Technological strengths</td>
<td>0.09</td>
<td>-0.22</td>
</tr>
<tr>
<td>08. Size of the firm</td>
<td>0.06</td>
<td>-0.15</td>
</tr>
<tr>
<td>09. Product characteristics</td>
<td>0.06</td>
<td>-0.11</td>
</tr>
<tr>
<td>10. Exporting objectives</td>
<td>0.28</td>
<td>-0.67</td>
</tr>
<tr>
<td>11. Demographic</td>
<td>0.04</td>
<td>-0.12</td>
</tr>
<tr>
<td>12. Commitment to export related activities</td>
<td>0.17</td>
<td>-0.43</td>
</tr>
<tr>
<td>13. Education</td>
<td>0.28</td>
<td>-0.71</td>
</tr>
<tr>
<td>14. Operational obstacles</td>
<td>-0.19</td>
<td>0.47</td>
</tr>
<tr>
<td>(2) External Dimension Factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Awareness of the government export policies ...</td>
<td>0.26</td>
<td>-0.61</td>
</tr>
<tr>
<td>16. Gov. export policies ...</td>
<td>0.26</td>
<td>-0.60</td>
</tr>
<tr>
<td>17. Raw material problems</td>
<td>0.07</td>
<td>-0.15</td>
</tr>
<tr>
<td>18. Foreign market conditions</td>
<td>-0.27</td>
<td>0.64</td>
</tr>
<tr>
<td>19. Gov. export procedures ...</td>
<td>-0.08</td>
<td>0.19</td>
</tr>
<tr>
<td>20. Physical distribution</td>
<td>-0.02</td>
<td>0.05</td>
</tr>
<tr>
<td>21. Domestic market conditions</td>
<td>-0.01</td>
<td>0.04</td>
</tr>
</tbody>
</table>

G1 = Exporter's group; G2 = Non - Exporter's group

* These factors are presented in descending order of their standardized discriminant coefficient (separately for each dimension).

* The group means here show the difference between the means of each group from the means of the factor score.
The "export benefits" factor is the second most important one that is associated with export behaviour. The result indicates that the non-exporter's group perceives exporting benefits are higher than the exporter's groups. This might be due to the fact that the exporter's group could be more realistic than its counterpart, the non-exporter's group in terms of the perception of exporting benefits. The non-exporter's group might overestimate the exporting benefits, because of the lack of experience in exporting.

The "business experience" factor is ranked the third among the most discriminating internal factors. The result indicates that the exporter's group has a much wider business experience than the non-exporter's group.

The fourth factor of the most important internal factors is the "willingness to change". The result indicates that the exporter's group is more willing to change its export marketing policies than its counterpart, the non-exporter's group. This result appears to agree with previous works in this field, such as Kolhede (1984), Weinrauch and Rao (1974), and Samiee & Walters (1990a).

A further most important factor of the internal dimension related to export behaviour is the "perceived risk" factor. The result indicates that the non-exporter's group perceives a higher risk than the exporter's group. This result is supported by many export studies, such as Czinkota and Johnston (1981) and Tesar (1977).

The "market competitive strengths" factor is the sixth most important one compared with other internal factors. The result indicates that the exporter's group perceived this factor (i.e., market competitive strengths) much higher than the non-exporter's group. This result seems to be in agreement with previous works (e.g., Kirpalani and Macintosh 1980, and Bourantas & Halikias 1991).
The "technological strengths" factor stands out to be as the seventh most important factor that discriminated between the two groups. In comparison between the means result of each group, it may be concluded that the exporter's group perceives this factor much more than the non-exporter's group. This result is supported by many other studies, such as, Hirsch (1971), McGuinness and Little (1981), and Ogram (1982).

The eighth most important factor is the "size of the firm". This factor contributes significantly in discriminating between the two groups. The result indicates that the exporter's group tends to be much larger than the non-exporter's group.

In comparison to the other factors of the internal dimension, the "product characteristics" factor is ranked as the ninth most important factor distinguishing the two groups. The results reveal that the exporter's group perceives this factor much higher than the non-exporter's group. This result appears to be in agreement with previous work, for example, Mayer and Flynn (1973), Kolhede (1984), Cavusgil and Naor (1987).

Another most important factor is the "export objectives" factor. The result indicates the exporter's group attaches much more importance to this factor than the non-exporter's group.

The "demographic" factor comes to be ranked as the eleventh most important related to export behaviour. The result indicates that the exporter's group tends to be older than the non-exporter's group in respect of their managers' ages. This appears to be in conflict with previous studies. Previous studies reported that exporters are more likely to be younger than non-exporters. The possible explanation for this conflict might be due to the fact that this measure is tested here at aggregate level (i.e., factor).
This factor "commitment to export related activities" stands out to be ranked as the twelfth most important among the internal factors. The result indicates that the exporter's group tends to be much more committed to export activities than the non-exporter's group. This result is in line with many previous studies, such as Cavusgil (1976), Cavusgil and Nevin (1981), and Kolhede (1984).

The "education" factor comes to be ranked as the thirteenth most important internal factor that associated with export behaviour. The result reveals that the exporter's group in respect to the "education" factor tends to be much higher than the non-exporter's group.

The last most important internal factor comes to be the "operational obstacles" factor. The result indicates that the exporter's group perceives this factor to be much lower than the non-exporter's group. This result is in line with other export behaviour studies, (e.g., Bilkey and Tesar (1977), Alexandrides (1971), and Schlegelmilch (1983, 1986), etc.).

(2) The External Dimension Factors

This category of discriminating factors between exporters and non-exporters should represent the primary concern to the government in order to stimulate and encourage non-exporters to become involved in export operations.

As shown in Table (9.8), there are 6 most important factors related to the external dimension. In their order of importance, they are; "awareness of the government's export policies and assistance" (0.30), "government's export policies and assistance" (0.26), "raw material related problems" (0.22), "foreign markets conditions" (0.17), "government export procedures" (0.17), "physical
distribution related problems" (0.10), and the "domestic market conditions" (0.07).

Looking at Table (9.8), we observe that the first factor of the external dimension (i.e., the "awareness of the government's export policies and assistance") is regarded as the most important by the two groups (i.e., exporters and non-exporters). The result indicates that the exporter's group has higher knowledge, or is much more aware of government's export policies and assistance than the non-exporter's group. The possible explanation of the importance of this factor might be attributed to two factors; the first one being the wider experience of the exporter's group in comparison with its counterpart the non-exporter's group, and the second factor is the little effort that the government may put in to make these policies known among the non-exporter's group (see Chapter 3). Therefore, it may be concluded that awareness of the government's export policies and assistance are important for those firms which want to become involved in exporting.

The "government's export policies and assistance" factor is the second factor of importance. The result indicates that the exporter's group attached a higher importance to this factor than the non-exporter's group. The possible explanation of that might be due to either of two factors; the lack of knowledge or awareness of these export policies among the non-exporter's group, or perhaps the negative attitudes of the non-exporter's group towards the current government's export policies and assistance.

The "raw material related problems" factor is ranked third among the most discriminating external factors. The result indicates that the exporter's group attaches slightly higher importance to this factor than the non-exporter's group. This might be attributed to
the fact that the exporter's group is more realistic, because the exporter's group has a wider experience than the non-exporter's group.

A further important factor related to the external dimension is the "foreign markets conditions" factor. The result indicates that the non-exporter's group perception the problems of the foreign market conditions are much worse than the export's group. The possible explanation of that might be due to the lack of experience of the non-exporter's group in foreign markets.

The "government's export procedures" factor comes to be ranked the fifth most important factor discriminating between the two groups. The result indicates that the exporter's group attaches little important to this factor than the non-exporter's group. Problems associated with government export procedures are considered the main obstacles inhibiting firms to become involved in exporting (see Chapter 3). Therefore, the government has to simplify these procedures as much as possible, if it wants to stimulate and encourage these firms to become involved in exporting.

The "physical distribution related problems" factor is ranked the sixth most important among the external factors in discriminating between the two groups. The result indicates that the non-exporter's group perceives this factor much worse than the exporter's group. This might indicate that the lack of physical distribution facilities in the domestic market might discourage or inhibit firms from becoming involved in exporting.

The last important external factor related to export behaviour is the "domestic market conditions". The result indicates that the non-exporter's group perceives this factor to be much worse than the exporter's group.
9.3 The Differences Between Exporters and Non-Exporters: Variables Findings

The t-test is used to check the following null hypothesis:

H0(11): There is no significant difference between the two groups (i.e., exporters and non-exporters) on the basis of variables which make up each factor, taken separately.

This major hypothesis can be further divided into 26 hypotheses according to the number of the factors included in the analysis. A summary of the results of these hypotheses is provided in Table (9.9).

The results indicate that, out of these 26 null hypotheses, only 18 null hypotheses were rejected, one null hypothesis was accepted and 7 null hypotheses were mixed (i.e., some variables were found to be significant).

9.4 The Interpretation of the Variable Findings

The possible interpretation of the results of the variables is presented here in terms of each factor to which they belong, as follows:

1. The "Managerial Aspirations" Factor: Variables T-Test

This factor consists of 6 independent variables (Table 9.10). Each of them was regarded as important in differentiating between the two groups. The result indicates that the exporter's group attaches a higher importance to all of these attributes than the non-exporter's group. In comparison to other attributes of this factor, the increasing of the firm's overall profit attribute is the most important to differentiate between the two groups.

This result is supported by many studies in previous works, such as Schlegelmilch (1986), Bilkey and Tesar (1977), and Cavusgil and Naor (1987).
Table (9.9)

A Summary of the Results of the T - Test of the Differences Between Exporters and Non - Exporters in Terms of Variables Which Constitute Each Independent Factor, Taken Separately

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Factors</th>
<th>No. of Variables</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>F(HO)01</td>
<td>Managerial aspirations</td>
<td>6</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)02</td>
<td>Operational obstacles</td>
<td>8</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)03</td>
<td>perceived risk</td>
<td>5</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)04</td>
<td>Export objectives</td>
<td>5</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)05</td>
<td>Export benefits</td>
<td>4</td>
<td>All insign.</td>
</tr>
<tr>
<td>F(HO)06</td>
<td>Export barriers</td>
<td>3</td>
<td>2 signif.</td>
</tr>
<tr>
<td>F(HO)07</td>
<td>Competitive situation</td>
<td>2</td>
<td>1 signif.</td>
</tr>
<tr>
<td>F(HO)08</td>
<td>Competitive strengths</td>
<td>5</td>
<td>4 signif.</td>
</tr>
<tr>
<td>F(HO)09</td>
<td>Size of the firm</td>
<td>3</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)10</td>
<td>Technological strengths</td>
<td>3</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)11</td>
<td>Business experience</td>
<td>2</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)12</td>
<td>Product characteristics</td>
<td>3</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)13</td>
<td>Willingness to change</td>
<td>4</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)14</td>
<td>Commitment to export related activities</td>
<td>7</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)15</td>
<td>Demographic</td>
<td>2</td>
<td>1 signif.</td>
</tr>
<tr>
<td>F(HO)16</td>
<td>Education</td>
<td>2</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)17</td>
<td>The government's export policies and assistances</td>
<td>9</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)18</td>
<td>Awareness of the government export ..</td>
<td>6</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)19</td>
<td>The government's export facilities problems</td>
<td>6</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)20</td>
<td>The government export procedures</td>
<td>3</td>
<td>2 signif.</td>
</tr>
<tr>
<td>F(HO)21</td>
<td>The foreign market</td>
<td>5</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)22</td>
<td>Commercial facilities</td>
<td>4</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)23</td>
<td>Raw material problems</td>
<td>4</td>
<td>2 signif.</td>
</tr>
<tr>
<td>F(HO)24</td>
<td>Export Costs</td>
<td>4</td>
<td>All signif.</td>
</tr>
<tr>
<td>F(HO)25</td>
<td>Physical distribution</td>
<td>3</td>
<td>All insignif.</td>
</tr>
<tr>
<td>F(HO)26</td>
<td>The domestic conditions</td>
<td>2</td>
<td>All signif.</td>
</tr>
</tbody>
</table>
Table (9.10)

T - Test Between Exporters and Non - Exporters in Terms of Variables Which Constitute the "Managerial Aspiration" Factor

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups Means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V31</td>
<td>Improving the market position</td>
<td>4.94</td>
<td>3.49</td>
<td>7.64</td>
<td>227</td>
</tr>
<tr>
<td>V32</td>
<td>Increasing the overall profit</td>
<td>5.99</td>
<td>3.56</td>
<td>12.88</td>
<td>151</td>
</tr>
<tr>
<td>V33</td>
<td>Securing steady growth</td>
<td>4.78</td>
<td>4.37</td>
<td>2.10</td>
<td>192</td>
</tr>
<tr>
<td>V34</td>
<td>Developing market strategies</td>
<td>5.34</td>
<td>3.52</td>
<td>9.30</td>
<td>174</td>
</tr>
<tr>
<td>V35</td>
<td>Reducing cost of production</td>
<td>5.84</td>
<td>3.53</td>
<td>12.41</td>
<td>162</td>
</tr>
<tr>
<td>V36</td>
<td>Increasing the sales volume</td>
<td>5.94</td>
<td>3.63</td>
<td>12.59</td>
<td>164</td>
</tr>
</tbody>
</table>

Therefore, it may be concluded that these attributes (taken together or separately) are important for those firms which intend to get involved in exporting, in particular, the increasing of the firm's overall profit attribute.

(2) The "Operational Obstacles" Factor: Variables T - Test

Each of the variables comprising the "operational obstacles" factor is found to be important in discriminating between the two groups (Table 9.11). The result indicates that the non - exporter's group attaches relatively higher importance to each of these attributes than the exporter's group. The most common operational obstacle which is considered relatively important by the two groups is the lack of personal expertise. This result appears to agree with other export behaviour studies, such as Schlegelmilch (1983), Alexandrides (1971), Pavord and Bogart (1975), Kolhede (1984) and Keng & Jiuan (1989).

Therefore, it may be concluded that these attributes either hinder or discourage those firms which want to become involved in exporting, in particular, the lack of knowledge in communicating with overseas customers.
Table (9.11)

**T - Test Between Exporters and Non - Exporters in Terms of Variables Which Constitute the "Operational Obstacles" Factor**

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V67</td>
<td>Difficulty of obtaining sales representative.</td>
<td>4.42</td>
<td>5.26</td>
<td>-4.51</td>
<td>383</td>
</tr>
<tr>
<td>V68</td>
<td>Difficulty of pricing our products abroad.</td>
<td>4.23</td>
<td>5.02</td>
<td>-4.24</td>
<td>281</td>
</tr>
<tr>
<td>V65</td>
<td>Lack of knowledge in comm.</td>
<td>4.38</td>
<td>5.64</td>
<td>-7.73</td>
<td>345</td>
</tr>
<tr>
<td>V70</td>
<td>Difficulty of locating potential demand</td>
<td>4.42</td>
<td>5.33</td>
<td>-5.56</td>
<td>300</td>
</tr>
<tr>
<td>V66</td>
<td>Lack of personal expertise</td>
<td>4.69</td>
<td>5.82</td>
<td>-6.98</td>
<td>332</td>
</tr>
<tr>
<td>V75</td>
<td>Size of production</td>
<td>4.30</td>
<td>5.59</td>
<td>-5.78</td>
<td>312</td>
</tr>
<tr>
<td>V69</td>
<td>Inability to establish distribution system</td>
<td>4.03</td>
<td>5.07</td>
<td>-5.77</td>
<td>282</td>
</tr>
<tr>
<td>V71</td>
<td>Difficulty of maintaining control over middleman</td>
<td>4.51</td>
<td>5.19</td>
<td>-3.74</td>
<td>273</td>
</tr>
</tbody>
</table>

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(3) The "Perceived Risk" Factor: Variables T - Test

The "perceived risk" factor consists of five variables, (Table 9.12). The result indicates that the non - exporter's group attaches higher importance to each of these attributes than the exporter's group. In comparison to other variables of this factor, the political risk attribute is considered as the most important by the two groups.

The attributes of this factor (taken together) are also found to be related to export behaviour. This result is in line with many previous works, such as Bilkey and Tesar (1977), Kolhede (1984), Simpson and Kujawa (1974), and Schlegelmilch (1983, 1986).

Therefore, it may be concluded that the attributes of this factor either hinder or discourage those firms which want to become involved in exporting, in particular, the perception of the political risk attribute.
### Table (9.12)

**T - Test Between Exporters and Non - Exporters in Terms of Variables Which Constitute the "Perceived Risk" Factor**

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V77</td>
<td>High risk of collecting</td>
<td>4.80</td>
<td>5.77</td>
<td>-5.83</td>
<td>303</td>
</tr>
<tr>
<td>V78</td>
<td>High foreign exchange risk</td>
<td>4.90</td>
<td>5.72</td>
<td>-5.83</td>
<td>270</td>
</tr>
<tr>
<td>V88</td>
<td>High risk of transportation</td>
<td>4.52</td>
<td>5.43</td>
<td>-4.62</td>
<td>259</td>
</tr>
<tr>
<td>V93</td>
<td>High risk of production</td>
<td>4.46</td>
<td>5.23</td>
<td>-3.82</td>
<td>257</td>
</tr>
<tr>
<td>V98</td>
<td>High political risk</td>
<td>4.12</td>
<td>6.10</td>
<td>-12.79</td>
<td>325</td>
</tr>
</tbody>
</table>

(4) The "Export Objectives" Factor: Variables T - Test

The "export objective" factor is composed of five variables (Table 9.13). The results indicate that the exporter's group attaches relatively higher importance to each of these variables than the non-exporter's group. When compared to other variables of this factor, increasing the firm's growth attribute is regarded relatively as the most important by the two groups.

### Table (9.13)

**T - Test Between Exporters and Non - Exporters in Terms of Variables Which Constitute the "Export Objectives" Factor**

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V27</td>
<td>Making greater profit</td>
<td>5.59</td>
<td>4.62</td>
<td>6.88</td>
<td>205</td>
</tr>
<tr>
<td>V26</td>
<td>Using the excess capacity</td>
<td>5.58</td>
<td>4.61</td>
<td>6.58</td>
<td>219</td>
</tr>
<tr>
<td>V30</td>
<td>Increasing the annual sales</td>
<td>5.50</td>
<td>4.92</td>
<td>5.08</td>
<td>191</td>
</tr>
<tr>
<td>V28</td>
<td>Increasing the security of the firm's investment</td>
<td>5.33</td>
<td>5.06</td>
<td>1.80</td>
<td>206</td>
</tr>
<tr>
<td>V21</td>
<td>Increasing the growth of the firm</td>
<td>5.98</td>
<td>4.45</td>
<td>9.93</td>
<td>229</td>
</tr>
</tbody>
</table>

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This result is supported by many export behaviour studies (e.g., Cavusgil and Nevin (1981) and Bilkey (1978)). Therefore, it may be concluded that these attributes (taken together or separately) are important for potential exporters which want to become involved in exporting.

(5) The "Export Benefits" Factor: Variables T – Test

The results indicates that each of the four attributes comprising this factor (i.e. "Export Benefits") is not important to differentiate between the two groups (Table 9.14). However, the result with regard to these attributes (taken together) is found to be important in differentiating between the two groups.

The possible explanation of this might be attributed to two factors: (1) the use of the aggregate measure may produce more power (a factor) than depending on each attribute separately, and (2) it might be due to the different types of the industrial firms under investigation. Some of these types might consider these attributes taken together as being critical in order to become involved in exporting. This result still needs further investigation.

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>V16</td>
<td>Overcoming instability demand</td>
<td>5.27 5.08</td>
<td>1.26</td>
<td>310</td>
<td>.210</td>
</tr>
<tr>
<td>V16</td>
<td>Better opportunities in the foreign markets</td>
<td>5.72 5.64</td>
<td>.75</td>
<td>237</td>
<td>.457</td>
</tr>
<tr>
<td>V20</td>
<td>Benefiting from the gove. export assistances</td>
<td>5.13 4.98</td>
<td>.94</td>
<td>331</td>
<td>.347</td>
</tr>
<tr>
<td>V22</td>
<td>Preventing dependency in the domestic market</td>
<td>4.86 4.45</td>
<td>1.57</td>
<td>317</td>
<td>.111</td>
</tr>
</tbody>
</table>
(6) The "Export Barriers" Factor: Variables T - Test

The "export barriers" factor consists of three variables (Table 9.15). The results indicate that only difficulty of collecting money on foreign sales and inability to provide follow up services are considered relatively as important by the two groups. The lack of significance for the inability to provide follow up service might indicate that it may be more important to determine the level of exporting.

However, the attributes of this factor (taken together) are regarded as not important by the two groups. This might be due to the different types of the industrial firms under investigation, some of which might only consider some attributes of this factor as being important barriers to their involvement in exporting.

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>V73</td>
<td>Inability to provide fellow up services</td>
<td>3.65 3.85</td>
<td>-0.94</td>
<td>196</td>
<td>.3500</td>
</tr>
<tr>
<td>V74</td>
<td>Inability to provide credit facilities</td>
<td>4.03 4.67</td>
<td>-1.17</td>
<td>252</td>
<td>.0002</td>
</tr>
<tr>
<td>V72</td>
<td>Diff. of collecting money</td>
<td>4.51 5.48</td>
<td>-4.99</td>
<td>289</td>
<td>.0000</td>
</tr>
</tbody>
</table>

(7) The "Competitive Situation" Factor: Variables T - Test

The "competitive situation" factor consists of two variables (Table 9.16); keeping pace with local competitors, and overcoming competition in the domestic market. The result indicates that each of these is not shown to be important in discriminating between the two groups.
These attributes of this factor taken together are also found to be not important in discriminating between the exporter's group and the non-exporter's group.

Therefore, it may be concluded that the attributes of the "competitive situation" factor whether taken together or separately are not important for firms who want to become involved in exporting.

Table (9.16)

T - Test Between Exporters and Non - Exporters in Terms of Variables Which Constitute the "Competitive Situation" Factor

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V23</td>
<td>Overcoming competition in the domestic market</td>
<td>4.68</td>
<td>4.36</td>
<td>1.93</td>
<td>282</td>
</tr>
<tr>
<td>V19</td>
<td>Keeping peace with local competitors</td>
<td>4.90</td>
<td>4.88</td>
<td>.09</td>
<td>371</td>
</tr>
</tbody>
</table>

(8) The "Market Competitive Strengths" Factor: Variables T - Test

The "market competitive strengths" factor is composed of five attributes, (Table 9.17). Among these five variables, only the proximity to the foreign market is not regarded as important by the two groups. The results indicate that the exporter's group perceives all of these attributes higher than the non-exporter's group. When compared to other attributes of this factor, the strength of management is considered as the most important in differentiating between the two groups. This result appears to agree with previous works, such as Bilkey and Tesar (1977) and Simpson (1973).

Therefore, it may be concluded that the attributes of the "market competitive strengths" factor are important for firms which intend to become involved in exporting, in particular, the strength of management skills.
Table (9.17)

T - Test Between Exporters and Non-Exporters in Terms of Variables Which Constitute the "Market Competitive" Factor

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V54</td>
<td>Ability to hire trained persons</td>
<td>4.53</td>
<td>3.16</td>
<td>7.92</td>
<td>232</td>
</tr>
<tr>
<td>V53</td>
<td>Ability to offer discount price</td>
<td>3.90</td>
<td>2.92</td>
<td>5.36</td>
<td>255</td>
</tr>
<tr>
<td>V24</td>
<td>Strength of management</td>
<td>5.42</td>
<td>3.45</td>
<td>10.47</td>
<td>178</td>
</tr>
<tr>
<td>V18</td>
<td>Proximity to the foreign market</td>
<td>5.43</td>
<td>5.35</td>
<td>.59</td>
<td>313</td>
</tr>
<tr>
<td>V49</td>
<td>Technological standard</td>
<td>4.22</td>
<td>3.30</td>
<td>4.47</td>
<td>292</td>
</tr>
</tbody>
</table>

(9) The "Size of the Firm" Factor: Variables T - Test

The "size of the firm" factor consists of three variables (Table 9.18). The results indicates that the exporter's group tends to be much larger than the non-exporter's group in terms of each of these variables. In comparison to other attributes of this factor, the total capital assist attribute is shown to be the largest in discriminating between the two groups. This result is supported by many export studies, such as Gronhang & Lorenzen (1982), Withey (1980), Keng & Jiuin (1989) and Culpan (1989). However, it is in conflict with other studies, such as Axinn (1985, 1988), Kirpalani and Macintosh (1980),

Table (9.18)

T - Test Between Exporters and Non-Exporters in Terms of Variables Which Constitute the "Size of the Firm" Factor

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V104</td>
<td>Number of employees</td>
<td>67.6</td>
<td>44.3</td>
<td>3.85</td>
<td>280</td>
</tr>
<tr>
<td>V106</td>
<td>Total of the capital asset</td>
<td>492.2</td>
<td>169.5</td>
<td>5.89</td>
<td>381</td>
</tr>
<tr>
<td>V108</td>
<td>Total sales volume</td>
<td>344.94</td>
<td>95.4</td>
<td>5.37</td>
<td>382</td>
</tr>
</tbody>
</table>

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Bourantas & Halikias (1991), Liouville (1992) and Samiee & Walters (1990a & 1990b). The possible explanation for this conflict might be due to the different size of the firms in the countries under investigation. In fact, the size of Jordanian firms are smaller in comparison to those in developed countries.

(10) The "Technological Strengths" Factor: Variables T - Test

The "technological strengths" factor is composed of three variables (Table 9.19). The results indicate that the exporter's group perceives each of these variables much higher than the non-exporter's groups. In comparison to other variables of this factor, the ability to modify export marketing policies attributes is regarded relatively the most important by the two groups.

Therefore, it may be concluded that these attributes should be considered important for firms which want to become involved in exporting.

Table (9.19)

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1    G2</td>
<td>Value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V50</td>
<td>The superior of product</td>
<td>5.61  4.95</td>
<td>3.81</td>
<td>189</td>
<td>.0000</td>
</tr>
<tr>
<td>V51</td>
<td>The superior of production</td>
<td>5.12  4.47</td>
<td>4.13</td>
<td>220</td>
<td>.0000</td>
</tr>
<tr>
<td>V55</td>
<td>High ability to modify</td>
<td>4.76  3.82</td>
<td>5.26</td>
<td>231</td>
<td>.0000</td>
</tr>
</tbody>
</table>

(11) The "Business Experience" Factor: Variables T - Test

The "business experience" factor consists of two variables (Table 9.20); the number of years in exporting and the number of years in business. The results indicate that the exporter's group has a wider
experience than the non-exporter's group. When compared to other type of experience, the number of years in exporting tends to be more important in differentiating between the two groups.

While this result is in agreement with other studies in respect of the number of years in exporting (e.g., Daniels and Goyburo 1976, Ursic and Czinkota 1983, and Bilkey 1978), it is found to be in conflict with other studies in respect of the firm's age, i.e., the number of years in business, (e.g., Cavusgil and Naor 1987, Keng & Jiuan 1989, Tseng & Yu 1991, and Samiee & Walters 1990a). The possible explanation for this conflict might be due to the difference of the originations of the firms under investigation.

Table (9.20)

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V103</td>
<td>Number of years in business</td>
<td>10.4</td>
<td>8.1</td>
<td>3.91</td>
<td>243</td>
</tr>
<tr>
<td>V107</td>
<td>Number of years in exporting</td>
<td>8.4</td>
<td>1.00</td>
<td>24.90</td>
<td>271</td>
</tr>
</tbody>
</table>

(12) The "Product Characteristics" Factor: Variables T - Test

Each of the three variables which constitute the "product characteristics" factor is found to be an important by the two groups (Table 9.21). The results indicate that the exporter's group attaches relatively a higher importance to each of these attributes than the non-exporter's group. In comparison to other attributes of this factor, the uniqueness of product attributes is regarded relatively as the most important by the two groups.

This result appears to agree with previous works (e.g., Cavusgil and Naor (1987), and Mayer and Flynn (1973)). Therefore, it may be
concluded that the attributes of the "product characteristics" factor are important for firms which intend to become involved in exporting.

Table (9.21)

T - Test Between Exporters and Non - Exporters in Terms of Variables Which Constitute the "Product Characteristics" Factor

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V25</td>
<td>Product competitive price</td>
<td>5.42</td>
<td>5.00</td>
<td>3.10</td>
<td>240</td>
</tr>
<tr>
<td>V52</td>
<td>Product quality</td>
<td>4.69</td>
<td>4.36</td>
<td>1.93</td>
<td>282</td>
</tr>
<tr>
<td>V17</td>
<td>Uniqueness of product</td>
<td>4.35</td>
<td>3.27</td>
<td>5.44</td>
<td>304</td>
</tr>
</tbody>
</table>

(13) The "Willingness to Change" Factor: Variables T - Test

The "willingness to change" factor consists of four variables (Table 9.22). The results indicate that the exporter's group attaches relatively a higher importance to each of these attributes than the non - exporter's group. In comparison to other attributes of this factor the willingness to change pricing attribute is considered relatively the most important by the two groups.

Table (9.22)

T - Test Between Exporters and Non - Exporters in Terms of Variables Which Constitute the "Willingness to Change" Factor

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V45</td>
<td>Willingness to modify organisational system</td>
<td>4.26</td>
<td>3.65</td>
<td>4.33</td>
<td>354</td>
</tr>
<tr>
<td>V47</td>
<td>Willingness to change pricing policies</td>
<td>4.79</td>
<td>3.39</td>
<td>9.42</td>
<td>190</td>
</tr>
<tr>
<td>V46</td>
<td>Willingness to adapt product policies</td>
<td>5.35</td>
<td>4.78</td>
<td>3.62</td>
<td>230</td>
</tr>
<tr>
<td>V48</td>
<td>Willingness to modify distribution system</td>
<td>4.97</td>
<td>3.87</td>
<td>6.96</td>
<td>205</td>
</tr>
</tbody>
</table>
This result is supported by many export studies such as Kolhede (1984), Weinrauch and Rao (1974) and Layton & Dunphy (1970).

Therefore, it may be concluded that these attributes (taken together or separately) should be considered important for firms which want to become involved in exporting, in particular, the willingness to change pricing policies to meet foreign markets conditions.

(14) The "Commitment to Export Activities" Factor: Variables T-test

The "commitment to export activities" factor is composed of eight variables (Table 9.23). The result indicates that the exporter's group tends to be much more committed to export activities than the non-exporter's group. When compared to other attributes of this factor, having a formal policy for handling export activities attribute is regarded as the most important in discriminating between the two groups.

This result is found to agree with previous works, such as, Malekzadeh & Nahavandi (1985) and Cavusgil et al. (1979).

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V41</td>
<td>We promote our product to</td>
<td>4.54</td>
<td>3.19</td>
<td>9.11</td>
<td>296</td>
</tr>
<tr>
<td>V40</td>
<td>We participate in the</td>
<td>4.52</td>
<td>3.48</td>
<td>6.97</td>
<td>358</td>
</tr>
<tr>
<td>V42</td>
<td>international trade fairs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V43</td>
<td>We plan to get into foreign</td>
<td>5.11</td>
<td>3.12</td>
<td>13.57</td>
<td>281</td>
</tr>
<tr>
<td>V44</td>
<td>We send sales rep.</td>
<td>4.45</td>
<td>2.85</td>
<td>10.08</td>
<td>299</td>
</tr>
<tr>
<td>V38</td>
<td>We have a formal policy for</td>
<td>4.90</td>
<td>2.08</td>
<td>21.36</td>
<td>251</td>
</tr>
<tr>
<td>V39</td>
<td>We consistently seek export opportunities</td>
<td>5.31</td>
<td>3.03</td>
<td>15.94</td>
<td>202</td>
</tr>
<tr>
<td>V37</td>
<td>We carry out a systematic</td>
<td>4.45</td>
<td>2.26</td>
<td>15.08</td>
<td>222</td>
</tr>
<tr>
<td></td>
<td>We use export research</td>
<td>3.97</td>
<td>3.59</td>
<td>2.36</td>
<td>244</td>
</tr>
</tbody>
</table>
Therefore, it may be concluded that the attributes of this factor are important for those firms which wish to get involved in exporting, in particular, having a formal policy for handling export activities.

(15) The "Demographic" Factor: Variables T - Test

The "demographic" factor consists of two variables; age and experience (Table 9.24). The results indicate that each of these is not important to differentiate between the two groups. However, this result is found to be in conflict with previous work in export behaviour. For example, Layton & Dunphy (1970), and Pinney (1968) reported that exporters were more likely to be younger than non-exporters. The possible explanation of this might be attributed to the different demographic characteristics of the managers of the firms in the countries under investigation. Jordanian managers at the higher level of management tend to be in the same age group.

Table (9.24)

T - Test Between Exporters and Non - Exporters in Terms of Variables Which Constitute the "Demographic" Factor

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V115</td>
<td>Experience</td>
<td>9.8</td>
<td>8.6</td>
<td>1.68</td>
<td>225</td>
</tr>
<tr>
<td>V114</td>
<td>Age</td>
<td>41</td>
<td>42</td>
<td>-.35</td>
<td>187</td>
</tr>
</tbody>
</table>

(16) The "Education" Factor

The "education" factor is composed of two types of education (Table 9.25); the level of education and proficiency in a foreign language. The result indicates that the exporter's group is much more highly educated than the non exporter's in terms of education and linguistic ability. With regard to the education determinant, the proficiency in
foreign language is found to be more important in differentiating between the two groups.

While this result is found to be in agreement with other export studies, such as Reid (1981), Simpson (1973), Langston & Teas (1976), Keng & Jiuan (1989) and Holzmuller & Kasper (1990), it was found to be in conflict with others such as Cavusgil & Naor (1987), Axinn (1988) and Bourantas & Halikias (1991). This might be due to the differences between the key respondent of the firms under investigation.

Therefore, it may be concluded that the attributes of the "education" factor are important for firms which want to become involved in exporting, in particular, the proficiency in a foreign language attribute.

Table (9.25)

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V117</td>
<td>Level of education</td>
<td>12.6</td>
<td>9.7</td>
<td>5.83</td>
<td>178</td>
</tr>
<tr>
<td>V120</td>
<td>Proficiency in foreign language</td>
<td>54.1</td>
<td>27.9</td>
<td>9.80</td>
<td>174</td>
</tr>
</tbody>
</table>

(17) The "Government's Export Policies and Assistant" Factor:

Variables T - Test

The "government's export policies and assistance" factor consists of nine variables (Table 9.26). The result indicates that the exporter's group attaches higher importance to each of these attributes than the non-exporter's group. The possible explanation of this result might be due to the lack of knowledge or awareness of these export policies and assistance among the non-exporter's group, or it could be related to the negative attitudes of the non-
exporter's group towards the government's export procedures. When compared to other attributes of this factor, the devaluation of JD and the income tax rebate policy attribute are considered the most important by the two groups.

Table (9.26)

T - Test Between Exporters and Non - Exporters in Terms of Variables Which Comprise the "Government Export Assistance and Policies" Factor

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V1</td>
<td>The government's trade agreement policies</td>
<td>4.95</td>
<td>4.03</td>
<td>4.61</td>
<td>240</td>
</tr>
<tr>
<td>V2</td>
<td>Export credit discount</td>
<td>4.52</td>
<td>3.78</td>
<td>2.73</td>
<td>238</td>
</tr>
<tr>
<td>V3</td>
<td>Duty drawback facilities</td>
<td>4.68</td>
<td>3.39</td>
<td>6.40</td>
<td>243</td>
</tr>
<tr>
<td>V4</td>
<td>The Chamber of Industry export services</td>
<td>5.04</td>
<td>3.79</td>
<td>7.19</td>
<td>244</td>
</tr>
<tr>
<td>V5</td>
<td>The Trade Centre export services</td>
<td>5.22</td>
<td>3.94</td>
<td>8.06</td>
<td>281</td>
</tr>
<tr>
<td>V6</td>
<td>The Free Trade Zones facilities</td>
<td>4.48</td>
<td>3.71</td>
<td>4.43</td>
<td>265</td>
</tr>
<tr>
<td>V7</td>
<td>Devaluation of JD</td>
<td>5.55</td>
<td>3.73</td>
<td>10.80</td>
<td>216</td>
</tr>
<tr>
<td>V8</td>
<td>Temporary entry facilities</td>
<td>5.22</td>
<td>3.54</td>
<td>8.96</td>
<td>244</td>
</tr>
<tr>
<td>V9</td>
<td>The income tax rebate</td>
<td>5.62</td>
<td>3.95</td>
<td>9.03</td>
<td>232</td>
</tr>
</tbody>
</table>

This result emphasises the role of the government's export policies and assistance by enabling firms to become involved in exporting. However, it appears to be in conflict with previous works. For example, Kolhede (1984), Rabino (1980) and Sullivan & Bauerschmidt (1990) reported that government's export incentives were not important either for exporters or non-exporters. This might be due to the different abilities of the firms in the countries under investigation. In fact, it was reported that firms in developing countries are in need of their governments' assistances, because of their lack of financial resources and know-how. Therefore, it may be concluded that the government's export policies and assistance are critical to Jordanian firms which want to become involved in exporting.
The "awareness of the government export policies and assistance" factor is composed of six variables (Table 9.27). The results indicate that the exporter's group is more aware of these attributes than the non-exporter's group. The explanation of this difference might be due to the wider experience of the exporter's group, or it could be due to the little attention that the government might be paying to promote these policies among the non-exporter's group.

When compared to other attributes of this factor, the lack of awareness of the duty-drawback system is the most common attribute considered by the two groups.

Therefore, it may be concluded that the awareness of these policies and assistances are important issues for firms to become involved in exporting, in particular the awareness of the duty-drawback system.

Table (9.27)

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T-Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V10</td>
<td>Knowledge of Free Trade Zones facilities</td>
<td>4.33</td>
<td>3.37</td>
<td>5.61</td>
<td>261</td>
</tr>
<tr>
<td>V11</td>
<td>Awareness of the duty-drawback facilities</td>
<td>4.44</td>
<td>2.73</td>
<td>9.40</td>
<td>263</td>
</tr>
<tr>
<td>V12</td>
<td>Awareness of the export credit programme</td>
<td>4.40</td>
<td>2.66</td>
<td>9.06</td>
<td>253</td>
</tr>
<tr>
<td>V13</td>
<td>Awareness of the management of export services</td>
<td>4.90</td>
<td>3.29</td>
<td>8.52</td>
<td>227</td>
</tr>
<tr>
<td>V14</td>
<td>Knowledge of temporary entry facilities</td>
<td>5.05</td>
<td>3.65</td>
<td>7.18</td>
<td>210</td>
</tr>
<tr>
<td>V15</td>
<td>Awareness of the export services provided by the Chamber of Industry</td>
<td>4.71</td>
<td>3.75</td>
<td>5.01</td>
<td>227</td>
</tr>
</tbody>
</table>
The "government export facilities related problems" factor consists of 6 variables (Table 9.28). The result shows that the non-exporter's group perceives each of these attributes in a much worse way than the exporter's group. When compared to other attributes of this factor, the bank guarantee requirement is regarded relatively as the most important problem by the two groups.

Therefore, it may be concluded that these attributes (taken together or separately) might hinder or discourage firms to become involved in exporting, in particular, the bank guarantee requirement.

Table (9.28)

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V59</td>
<td>Inadequate tax incentive</td>
<td>4.60</td>
<td>5.03</td>
<td>-2.25</td>
<td>267</td>
</tr>
<tr>
<td>V60</td>
<td>Cost of export documents</td>
<td>4.32</td>
<td>5.12</td>
<td>-4.28</td>
<td>263</td>
</tr>
<tr>
<td>V61</td>
<td>Complexity of the duty - drawback system</td>
<td>4.58</td>
<td>5.19</td>
<td>-3.62</td>
<td>290</td>
</tr>
<tr>
<td>V62</td>
<td>Lack of commercial...</td>
<td>4.57</td>
<td>5.00</td>
<td>-2.42</td>
<td>281</td>
</tr>
<tr>
<td>V63</td>
<td>High duties imposed on the spare parts</td>
<td>4.88</td>
<td>5.31</td>
<td>-2.44</td>
<td>276</td>
</tr>
<tr>
<td>V86</td>
<td>The bank guarantee req.</td>
<td>5.68</td>
<td>6.24</td>
<td>-3.99</td>
<td>327</td>
</tr>
</tbody>
</table>

The "government export procedures related problems" factor consists of three attributes (Table 9.29); the customs export clearances, the export licence procedures, and the export inspection process. The results indicate that only the export licence procedures and the export inspection process are important in differentiating between the
two groups. When compared to the export licence procedures, the export inspection process is considered as a more important problem by the two groups.

However, these attributes acting as a factor are found to be important in discriminating between the two groups. The possible explanation of this might be attributed either to one of two reasons: (1) the use of the aggregate measure (i.e., factor) might produce much power than being based on each attribute acting separately, or (2) perhaps some export procedures are perceived as much worse than others.

Table (9.29)

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The custom export clearance</td>
<td>4.56</td>
<td>4.60</td>
<td>-0.22</td>
<td>255</td>
</tr>
<tr>
<td>V56</td>
<td>The export licence procedure</td>
<td>4.11</td>
<td>4.65</td>
<td>-3.47</td>
<td>244</td>
</tr>
<tr>
<td>V57</td>
<td>The export inspection proc.</td>
<td>4.39</td>
<td>5.40</td>
<td>-5.25</td>
<td>276</td>
</tr>
</tbody>
</table>

(21) The "Foreign Market Conditions Related Problems" Factor: Variables T - Test

The "foreign market conditions" factor is composed of five variables (Table 9.30). The results indicate that the non-exporter's group perceives each of these variables much worse than the exporter's group.

When compared to other attributes of this factor, the difficulty of business practise attribute is considered as the most important problem by the two groups.
Therefore, it may be concluded that these attributes might hinder or discourage firms to become involved in exporting, in particular, the difficulty of business practice in foreign markets.

When compared to other attributes of this factor, the difficulty of business practice attribute is considered as the most important problem by the two groups.

Therefore, it may be concluded that these attributes might hinder or discourage firms to become involved in exporting, in particular, the difficulty of business practice in foreign markets.

Table (9.30)

T - Test Between Exporters and Non-Exporters in Terms of Variables Which Constitute the "Foreign Market Conditions" Factor

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V94</td>
<td>Diff. of business practise</td>
<td>3.93</td>
<td>5.83</td>
<td>-13.5</td>
<td>383</td>
</tr>
<tr>
<td>V95</td>
<td>The intensity of competition</td>
<td>4.41</td>
<td>6.18</td>
<td>-9.2</td>
<td>273</td>
</tr>
<tr>
<td>V96</td>
<td>Foreign government restric.</td>
<td>3.98</td>
<td>5.44</td>
<td>-8.5</td>
<td>270</td>
</tr>
<tr>
<td>V97</td>
<td>Geographical market distance</td>
<td>4.26</td>
<td>5.16</td>
<td>-5.1</td>
<td>260</td>
</tr>
<tr>
<td>V98</td>
<td>Political instability</td>
<td>4.11</td>
<td>6.09</td>
<td>-12.8</td>
<td>325</td>
</tr>
</tbody>
</table>

(22) The "Commercial Facilities Related Problems" Factor: Variables T - Test

This factor consists of 4 variables (Table 9.31). The results indicate that the two groups regard each of these variables as being important. When compared to the other variables of the "commercial facilities related problems" factor, the lack of reliable information about the foreign markets and the lack of export credit guarantee against non-payment risk are considered as the most important problems by the two groups.
Therefore, it may be concluded that these attributes (taken together or separately) will hinder or discourage firms to become involved in exporting, in particular, the lack of export credit guarantee against non-payment risk.

Table (9.31)

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V64</td>
<td>Lack of reliable infor.</td>
<td>5.52</td>
<td>6.06</td>
<td>-3.37</td>
<td>266</td>
</tr>
<tr>
<td>V76</td>
<td>Lack of export credit guarantee</td>
<td>5.51</td>
<td>6.16</td>
<td>-4.24</td>
<td>297</td>
</tr>
<tr>
<td>V79</td>
<td>Diff. of obtaining banking facilities</td>
<td>4.27</td>
<td>5.10</td>
<td>-4.15</td>
<td>265</td>
</tr>
<tr>
<td>V86</td>
<td>Lack of trade companies</td>
<td>4.98</td>
<td>5.70</td>
<td>-3.96</td>
<td>290</td>
</tr>
</tbody>
</table>

(23) The "Raw Material Related Problems" Factor: Variables T - Test

The "raw material related problems" factor consists of four variables (Table 9.32). The results indicate that only shortage of raw materials in the domestic market and the high price of raw materials regarded as being relatively important by the two groups.

However, these attributes acting as a factor are found to be important in discriminating between the two groups. The possible explanation of this might be related either to one of two reasons: (1) the use of the aggregate measure (i.e., factor) may produce more power than depending on each attribute acting alone, or (2) perhaps the different types of the industrial firms under investigation. Some of these types might consider these attributes taken together as being important problems to their involvement in exporting.
### Table (9.32)

**T - Test Between Exporters and Non - Exporters in Terms of Variables Which Constitute the "Raw Material Related Problems" Factor**

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V85</td>
<td>Diff. of obtaining raw material</td>
<td>4.44</td>
<td>4.61</td>
<td>-.8</td>
<td>230</td>
</tr>
<tr>
<td>V84</td>
<td>Low quality of raw material</td>
<td>4.20</td>
<td>4.11</td>
<td>.4</td>
<td>235</td>
</tr>
<tr>
<td>V83</td>
<td>Shortage of raw material in the domestic market</td>
<td>4.98</td>
<td>4.45</td>
<td>2.6</td>
<td>242</td>
</tr>
<tr>
<td>V92</td>
<td>High price of raw material</td>
<td>4.70</td>
<td>5.47</td>
<td>-3.7</td>
<td>269</td>
</tr>
</tbody>
</table>

(24) The "Export Costs" Factor: Variables T - Test

The "export costs" factor is composed of 4 variables (Table 9.33). The results indicate that each of these variables is relatively considered as important by the two groups. When compared to other variables of this factor, the high interest rate attribute was the most important in differentiating between the exporter's group and the non - exporter's group. Therefore, it may be concluded that these attributes are hinder or discourage firms to become involved in exporting, in particular, the high interest rate.

### Table (9.33)

**T - Test Between Exporters and Non - Exporters in Terms of Variables Which Constitute the "Export Costs" Factor**

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V89</td>
<td>High cost of communication</td>
<td>4.62</td>
<td>4.98</td>
<td>-2.07</td>
<td>274</td>
</tr>
<tr>
<td>V90</td>
<td>High cost of labour skills</td>
<td>4.67</td>
<td>3.30</td>
<td>-3.63</td>
<td>272</td>
</tr>
<tr>
<td>V91</td>
<td>High cost of obtaining warehouses facilities</td>
<td>4.20</td>
<td>5.83</td>
<td>-4.47</td>
<td>283</td>
</tr>
<tr>
<td>V101</td>
<td>High interest rate</td>
<td>5.26</td>
<td>5.20</td>
<td>-5.51</td>
<td>289</td>
</tr>
</tbody>
</table>
The "Physical Distribution Related Problems" Factor: Variables T - Test

The "physical distribution related problem" consists of three variables (Table 9.34). The results indicate that each of these is not important to differentiate between the two groups.

Table (9.34)

T - Test Between Exporters and Non - Exporters in Terms of Variables Which Constitute the "Physical Distribution Related Problems" Factor

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V81</td>
<td>Diff. of obtaining shipping</td>
<td>4.25</td>
<td>4.60</td>
<td>-1.77</td>
<td>255</td>
</tr>
<tr>
<td></td>
<td>facilities</td>
<td></td>
<td></td>
<td></td>
<td>.0780</td>
</tr>
<tr>
<td>V82</td>
<td>Diff. of obtaining warehouse</td>
<td>3.40</td>
<td>3.75</td>
<td>-1.78</td>
<td>230</td>
</tr>
<tr>
<td></td>
<td>facilities</td>
<td></td>
<td></td>
<td></td>
<td>.0760</td>
</tr>
<tr>
<td>V87</td>
<td>High freight cost</td>
<td>5.04</td>
<td>5.05</td>
<td>-0.03</td>
<td>294</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.9790</td>
</tr>
</tbody>
</table>

Therefore, it can be concluded that these attributes acting as a factor or separately are not important in differentiating the exporter's group from the non - exporter's group. This might be due to fact the two groups encountered the same physical distributions problems in the domestic market.

(26) The "Domestic Market Conditions" Factor: Variables T - Test

The "domestic market conditions" factor consists of two attributes (Table 9.35). The results indicate that the non - exporter's group attaches a higher importance to each of these attribute than the exporter's group. When compared to the intensity of competition attribute, the high domestic demand is regarded as more important by the two groups.
Therefore, it may be concluded that these attributes either discourage or hinder firms to become involved in exporting, in particular, the high domestic demand attribute.

Table (9.35)

T - Test Between Exporters and Non-Exporters in Terms of Variables Which Constitute the "Domestic Market Condition" Factor

<table>
<thead>
<tr>
<th>No</th>
<th>Variables</th>
<th>Groups means</th>
<th>T - Value</th>
<th>DF</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>G1</td>
<td>G2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V99</td>
<td>The intensity competition</td>
<td>3.89</td>
<td>5.76</td>
<td>-12.08</td>
<td>351</td>
</tr>
<tr>
<td>V100</td>
<td>The high domestic demand</td>
<td>3.93</td>
<td>5.83</td>
<td>-13.51</td>
<td>382</td>
</tr>
</tbody>
</table>
In this chapter, the testing of the research hypotheses (H06) to HO(II) conducted and the main findings of the other objectives of the study (i.e., 5 and 6) were presented and discussed respectively. Drawing together the findings of the various analysis conducted in this chapter, a number of conclusions emerge:

1. It was possible to discriminate between the two groups (i.e., exporters and non-exporters) in terms of their internal environmental measures (i.e., 16 factors) and external environmental measures (i.e., 10 factors) taken separately and together (see section 9.1.1 and 9.1.2).

2. In comparison to the external environmental measures, the internal environmental measures had a higher degree of association with export behaviour (i.e., the classification of group membership). In other words, the internal dimension was found to be more important in distinguishing between the two groups (i.e., exporters and non-exporters) than the external dimension. This result might indicate that internal factors are more critical than external factor for firms to become involved in exporting. It supports the findings of the previous studies, such as those reported by Cavusgil and Nevin (1981), Kolhede (1984) and Axinn (1985).

3. The addition of the external environmental measures to the internal environmental measures improved the predictive power of the classification of group membership (section 9.1.2).

4. The combination of the internal and external environmental predictors (i.e., 26 factors) in one discriminant function showed significant improvement in distinguishing between the two groups.
Table (9.36)
Profile Analysis For The Two Groups Means in Terms of the Components of the Internal and External Environmental Dimensions

<table>
<thead>
<tr>
<th>Independent factors</th>
<th>Profile Analysis</th>
<th>Non - Exporters</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Internal Factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>01. Managerial aspirations</td>
<td>much higher</td>
<td>much lower</td>
</tr>
<tr>
<td>02. Export benefits</td>
<td>slightly lower</td>
<td>slightly higher</td>
</tr>
<tr>
<td>03. Business experience</td>
<td>higher</td>
<td>much lower</td>
</tr>
<tr>
<td>04. Willingness to change</td>
<td>higher</td>
<td>much lower</td>
</tr>
<tr>
<td>05. Perceived risk</td>
<td>slightly lower</td>
<td>higher</td>
</tr>
<tr>
<td>06. Competitive strengths</td>
<td>slightly higher</td>
<td>much lower</td>
</tr>
<tr>
<td>07. Technological strengths</td>
<td>slightly higher</td>
<td>lower</td>
</tr>
<tr>
<td>08. Size of the firm</td>
<td>slightly higher</td>
<td>smaller</td>
</tr>
<tr>
<td>09. Product characteristics</td>
<td>slightly higher</td>
<td>much lower</td>
</tr>
<tr>
<td>10. Export objectives</td>
<td>higher</td>
<td>much lower</td>
</tr>
<tr>
<td>11. Demographic</td>
<td>slightly higher</td>
<td>much lower</td>
</tr>
<tr>
<td>12. Commitment to export...</td>
<td>higher</td>
<td>much lower</td>
</tr>
<tr>
<td>13. Education</td>
<td>higher</td>
<td>much lower</td>
</tr>
<tr>
<td>14. Operational obstacles</td>
<td>lower</td>
<td>much higher</td>
</tr>
<tr>
<td>(2) External Factors</td>
<td>higher</td>
<td>much lower</td>
</tr>
<tr>
<td>01. Awareness of the government's export</td>
<td>higher</td>
<td>much lower</td>
</tr>
<tr>
<td>02. Gov. export policies</td>
<td>higher</td>
<td>much lower</td>
</tr>
<tr>
<td>03. Raw material problems</td>
<td>slightly higher</td>
<td>slightly lower</td>
</tr>
<tr>
<td>04. Foreign Markets</td>
<td>lower</td>
<td>much higher</td>
</tr>
<tr>
<td>05. Gov. export procedures</td>
<td>slightly lower</td>
<td>higher</td>
</tr>
<tr>
<td>06. Physical distribution</td>
<td>slightly lower</td>
<td>slightly higher</td>
</tr>
<tr>
<td>07. Domestic market</td>
<td>slightly lower</td>
<td>slightly higher</td>
</tr>
</tbody>
</table>

* The comparison is made in terms of the difference between each group mean (i.e., exporter's group mean ; non - exporter's group mean) from the overall mean of each factor score.
(i.e., exporters and non-exporters), and the prediction was better than on each environmental measure individually (section 9.2.2).

5. The relative importance of internal and external factors were outlined and discussed respectively after the validation of the discriminant function was assessed and presented. The most important internal factors according to their order of importance were found to be: (1) "Managerial aspirations", (2) "Export benefits", (3) "Business experience", (4) "Willingness to change", (5) "Perceived risk", (6) "Market competitive strengths", (7) "Technological strengths", (8) "Size of the firm", (9) "Product characteristics", (10) "Export objectives", (11) "Demographic", (12) "Commitment to export related activities", (13) "Education", and (14) "Operational obstacles".

The most important external factors in terms of their order of importance are: (1) "Awareness of the government's export policies and assistance", (2) "Government export policies and assistance", (3) "Raw material related problems", (4) "Foreign markets conditions", (5) "Government export procedures", (6) "Physical distribution related problems", and the (7) "Domestic market conditions" (section 9.2.4).

6. Two methods were used to check the prediction of the export behaviour (exporter's group membership), namely, The Split - Half and Jackknife methods. The results of the validation confirm our findings that the internal environmental measures are better than the external environmental measures on the basis of prediction group membership of export behaviour. Also, they confirm the result that the combination of the two dimensions was better than taking each dimension acting separately in terms of prediction and classification of the group membership (sections 9.2.2 and 9.2.3).

7. The integration approach of the two environmental dimensions (internal and external) allows us to delineate a feasible profile for
the two groups, and in turn, to answer the question, who are exporters and who are non-exporters?. A summary profile for the differences between the exporter's group and the non-exporter's group is given in Table (9.36).

8. The results of differences between the two groups (i.e., exporters and non-exporters) in terms of their means score on the variables (taken separately) consisting of each independent factor were presented and discussed respectively. The results indicated that the attributes (i.e., variables) of 18 factors were found to be important in differentiating between the two groups and some attributes of 7 factors were found to be related to export behaviour (i.e., the differentiation between exporters and non-exporters). However, only attributes of one factor were not found to be relevant to export behaviour (see Table 9.9).

(9) The results showed some disagreement with previous works in respect of the attributes of the following factors: (1) The "Size of the firm", (2) "Business experience", (3) "Demographic", (4) "Government's export policies and assistances" and "Education". The possible explanations of these conflicts were attributed to either of the two factors; (1) the use of the aggregate measure (i.e., factor), or (2) the export situations of the firms in the countries under investigation. For more details see section 9.4, Factors 10, 11, 15, and 17.
CHAPTER TEN

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

10.1 Summary

10.2 Main Conclusions of the Research Findings

10.3 Research Contributions

10.3.1 Theoretical Contribution

10.3.2 Practical Contribution

10.4 Recommendations

10.4.1 Recommendations For Current and Potential Exporters

10.4.2 Recommendations For Public Policy Makers

10.5 Research Limitations

10.6 Areas for Further Research
10.1 Summary

This research has attempted to investigate the influence of the firm's internal and external environmental measures upon its export behaviour and the level of exporting. The specific objectives of this study have been explicitly presented in the first Chapter.

In order to achieve the study objectives, and to conduct the research in a systematic approach, a conceptual framework was developed. The conceptual framework tied together the major factors proposed to influence the firm's export behaviour and the level of exporting. The key factors were presented under two broad dimensions, i.e., internal and external.

The firm's internal environmental dimension was proposed under five major constructs: (1) Managerial aspirations, (2) Management's expectations, (3) Comparative advantages, (4) Commitment to export activity, and the (5) Socio-demographic characteristics of the decision-makers. The firm's external environmental dimension was suggested under two major constructs: (1) The economic and commercial infrastructural environment, and the (2) Political-legal environment (for more detail, see Chapter 4).

The data for this research were collected through structured-directed interviews with 387 respondents. The target respondents were the manufacturing firms in Jordan, and the key respondent approach was employed.

These primary data have been analysed by a variety of multivariate statistical techniques including; Stepwise multiple regression statistical technique; discriminant function analysis, the Jackknife
and Split-Half methods for validating the DFA functions; correlation analysis (using the Pearson Correlation Coefficient); the Chi-square test, the Univariate F-ratio test; McNemar test, and the t-test.

The findings of this study have been presented and discussed in detail in Chapters 7, 8, and 9. Chapter (7) outlined the main findings of a factor analysis, i.e., the factors that underlie each construct of the internal and external dimensions. Chapter (8) was devoted to the determinants of the firm's level of exporting, and Chapter (9) dealt with the determinants of the firm's export behaviour (i.e., exporters vs. non-exporters).

10.2 Main Conclusions of the Research Findings

The main conclusions that can be drawn from the findings of this study are as follows:

a. Twenty six factors were extracted from the seven major constructs of the internal and external dimensions. Sixteen of them were derived from the five constructs of the internal dimension; managerial aspirations (one factor), management's expectations (6 factors), comparative advantages (5 factors), commitment to export activity (2 factors), and socio-demographic characteristics (2 factors). The other ten factors were extracted from the two constructs of the external dimension; political-legal environment (4 factors) and economic and commercial infrastructural environment (6 factors). These 26 factors were successfully identified and labelled, and they were subsequently used to answer the research questions by using regression and discriminant analysis.

b. The analysis provides empirical evidence that the integration approach of the firm's internal environmental and its external environmental measures give better explanation not only of the
prediction of export behaviour (i.e., classification of export group membership), but also of the prediction of the level of exporting (i.e., percentage of export sales volume). This result supports the theories of the firm's behaviour which stress that the organisational behaviour is inseparably linked to the environment in which it takes place (e.g., Cyert and March 1963). Therefore, a better understanding of export behaviour (or level of exporting) requires that the firm's environmental measures as a whole to be viewed (i.e., the interaction of internal and external environments) rather than isolated fragments (e.g., only a single environmental dimension).

c. The study's findings show that factors determining the firm's level of exporting are quite different from the ones that distinguish exporters from non-exporters. For example, while the "government export procedures related problems" factor is not shown to be importantly related to the level of exporting, it is regarded as one of the most important factors that distinguish the exporters' group from the non-exporters' group. This result is of particular importance to public policy decision-makers who want to encourage firms to become involved in exporting, because any attempt to remove or reduce such problems associated with export procedures will be more helpful for potential exporters. (For more details about other differences, see Appendix [3]).

d. The results indicate that factors existing outside the boundary of the firm (i.e., external environment) are more critical for its level of exporting than those related to its internal environment. However, in order to become involved in exporting, the internal factors are more important than those existing in its external environment. This result might represent a primary concern for public policy makers, in the way that they can develop different promotional
strategies and make the required changes within the Government departments, either to improve the level of exporting, or/and to encourage firms to become involved in exporting.

e. The Determinants of the Level of Exporting

(1) The application of the Stepwise Multiple Regression analysis indicates that not only the firm's external environmental measures are important determinants of the level of exporting, but its internal environmental measures as well. This result is of a particular importance not only to manufacturers, but also to Government authorities, in the sense that one can identify the types of change required within their organisations in order to enhance the level of exporting.

(2) By the integration of the firm's internal environmental measures (i.e., 16 factors), only three factors are shown to be significantly related to the firm's level of exporting. In their order of importance, they are: 1. "Willingness to change", 2. "Commitment to export related activities", and 3. "Size of the firm".

(3) By the integration of the firm's external environment measures (i.e., 10 factors), only five factors are shown to be significantly related to the level of exporting. According to the order of importance, they are: 1. The "Foreign market conditions", 2. "Export costs", 3. The "Domestic market conditions", 4. "Government's export policies and assistances", and 5. "Awareness of the government's export policies and assistances."

(4) The research results indicate that the external environmental dimension produces better explanation of the variation of the level of exporting than the internal environmental dimension. In other words, factors existing outside the boundary of the organisation (external factors) are more critical to the firm's level of exporting than those
related to its internal environment. This result should be the main concern for Government departments to consider that any change in or action with regard to their current export policies and assistances will be helpful for firms which intend to improve their level of exporting.

(5) Integration of the internal and external dimensions (i.e., 26 factors) produces a better prediction and explanation of the variation of the level of exporting than each dimension acting alone. The result shows that 64% of the variance of the level of exporting could be explained by this combination, while each of internal and external dimension could only explain about 49.5% and 52% of the variance of the level of exporting respectively. This produces an empirical evidence that the level of exporting could be better explained through the combination of factors related to the firm's internal process and factors existing outside its boundary.

(6) Individual analysis of the attributes of the internal and external factors (i.e., 26 factors) show some difference from the results of taking attributes together (i.e., as a factor) in respect of the level of exporting. Four factors are shown to be important to the level of exporting, but some of their attributes are not. These factors are: 1. "Government export facilities related problems" 2. "Government's export policies and assistances", 3. "Demographic", 4. "Export benefits". The possible explanations for this disagreement might be attributed either to the use of the aggregate measure (i.e., factor) which may produce more power than each of their attributes acting alone, or perhaps the different types of industrial firms under investigation. Some of these types might consider these attributes taken together as being critical in order to improve their level of exporting.
The analysis shows that out of 26 factors, all the attributes of 17 factors and some attributes of 6 factors are important to the level of exporting (see Table 8.33, Chapter 8). This potentially allows identification of necessary changes that organisations can make to improve the level of exporting. For example, compared to other attributes in the "size of the firm" factor, the capital of assets are shown to be the most importantly related to a high level of exporting. This implies that manufacturers who want to improve their level of exporting might need to maximise their capital assets as much as possible. For the other important attributes of each factor related to a high level of exporting, see Appendix [3]).

While many of this study's findings support previous research, results of the following two attributes and two factors are found to be in conflict; (1) the decision-maker's age (2) the decision-maker's foreign language skills, (3) "technological strengths", and (4) "willingness to change" factors.

For example, Simmonds and Smith (1968), Reid (1980) and Moon & Lee (1990) reported little or no relationship between the decision-maker's foreign language skills and the level of exporting. The result of this study shows a positive relationship of such skills. However, it agrees with the findings of studies reported by Burton and Schlegelmilch (1987), Schlegelmilch (1986), Khan (1978) & Langston (1976). This differences in findings might be attributed to the difference between the countries under investigation. This study found no relationship between the decision-maker's age and the level of exporting which is in conflict with previous studies, such as Dichtl et al. (1984, 1990) and McConnell (1979). This might be attributed to the difference between the ages of managers of the firms in the countries under investigation. Managers at a higher level of
management in Jordan are nearly about of the same age, i.e., almost old.

The study shows that the "technological strengths" factor is not important to the level of exporting. While this result is supported by Axinn (1985, 1988) and Reid (1986), it is in conflict with results of other studies, such as Cavusgil and Nevin (1981), Schlegelmilch (1983, 1986), Aaby & Slater (1989), and Walters and Samiee (1990). A possible explanation might be attributed either to general low technological level of the firms surveyed here, or perhaps to the use of an aggregate measure here (i.e., factor).

The study indicates that the "willingness to change" factor is importantly related the level of exporting. While this result is in agreement with previous studies such as those reported by Cooper & Kleinschmidt (1985), Samiee & Walters (1990a), and Ortiz-Buonafina (1990), it is in conflict with the findings of other studies, such as Seifert & Ford (1989) and Christensen et al. (1987). This difference in findings might be attributed to the use of the aggregate measures (i.e., factor), or it might be due to the different types of the firms in the countries under investigation.

f. The Determinants of the Firm's Export Behaviour

(1) The results obtained from applications of the Split Half and Jackknife to the validity of the discriminant functions of the three set of dimensions (i.e., internal, external, and combined) provide strong evidence that each of these discriminant functions is a valid model in discriminating between the two groups (i.e., exporters and non-exporters). For more details, see section 9.2.3, Chapter 9.

(2) The application of Discriminant Function Analysis indicates that there is a strong relationship between the values of 16 factors of the internal dimension and the classification of the export group.
membership. The analysis shows that the internal factors are able to correctly classify 95.84% of the population of the study into two groups (exporter's group and non-exporter's group). This result should represent a primary concern for manufacturers who want to become involved in exporting, since by comparing themselves with those already involved in exporting, they can implement the required changes within their organisations.

(3) The Discriminant Function Analysis shows that there is also a relationship between the 10 factors of the external dimension and the classification of the export group membership. The analysis shows that the external factors are able to correctly classify 83.38% of the same population into exporter's group and non-exporter's group. This result is of a particular importance to public policy makers who want to encourage firms to become involved in exporting, in the way that the Government can meet the needs of each of these groups alone.

(4) In comparison between the solutions produced by the two dimensions (internal and external) in respect of the classification of export group membership, it is inferred that factors related to the internal processes of the firms are more critical for them to become involved in exporting than those existing outside of their boundaries. This is in line with other export behaviour studies, such as Cavusgil (1976), Cavusgil and Nevin (1981), Axinn (1985, 1988), Kolhede (1984), Gomez-Mejia (1988) and Gemunden (1991). It indicates that the real barriers to export are more related to the aspects under the control of the firm. This result is of a particular concern for the Government if it intends to encourage firms to move into exporting. The Government action is more likely to be effective where it is designed to make an impact on the firm's internal environmental characteristics.
(5) The integration approach of the internal and external dimension provides empirical evidence that export behaviour is better predicted by the combination (interaction) of these dimensions than by each dimension acting alone. The analysis shows that the addition of the 10 factors of the external dimension to the 16 factors of the internal dimensions produce a significant improvement in the classification of group membership and it is able to correctly classify 97.39% of the same population into two groups (i.e., exporters and non-exporters). This result supports the behaviour theories of the firm which suggest that organisational behaviour is a function of the interaction of the firm's internal with its external environment. It also gives a better understanding of export behaviour by viewing the organisation as a whole rather than being isolated fragments (i.e., previous studies only covered the internal environment).

(6) The analysis of the discriminant analysis function also shows that out of the 26 factors of the combination 21 could be considered as significant discriminators between the exporters' group and the non-exporters' group. These 21 factors belong to both of the two key dimensions of the environments: (1) Internal environmental dimension (14 factors) and (2) External environmental dimension (7 factors).

With regard to the factors related to the firm's external environmental dimension, the 7 most important factors, in their order of importance, they are: 1. "Awareness of the government's export policies and assistance", 2. "Government's export policies and assistances", 3. "Raw material related problems", 4. "Foreign markets conditions", 5. "Government export procedures related problems", 6. "Physical distribution related problems", and 7. the "Domestic market conditions". (7) Individual analysis of the attributes of 26 factors show some differences from the result of taking attributes together (i.e., as a factor) in respect of the differentiating between the exporters' group and the non-exporters' group. While 4 factors are shown to be important in discriminating between the two groups, some of their attributes are regarded as not important by the two groups. They are: 1. "Export benefits", 2. "Demographic", 3. "Government's export procedures related problems", and 4. "Physical distribution related problems". The possible explanations for this disagreement of results might be attributed to two factors; the use of the aggregate measure here (i.e., the factor) may produce more power than on each attribute acting alone, and secondly the different types of the industrial firms under investigation. Some of these types might regard these attributes taken together as being essential in order to become involved in exporting. (8) The research findings show some disagreement with previous export behaviour studies in respect of the results of the following factors and their associated attributes; 1. the "Size of the firm" 2. "Business experience", 3. "Demographic", and 4. "Government's export policies and assistances", 5. "Education".
The attributes of the "size of the firm" factor were found to be important in discriminating between the two groups (i.e., exporters and non-exporters). While this result is supported by Reid (1980), Withey (1980), Gronhang & Lorenzen (1982), Culpan (1989), Keng & Jiuan (1989), Ortiz-Buonafina (1990), Samiee & Walters (1991) and Liouville (1992), it is in conflict with others, such as Cavusgil and Naor (1987), Axinn (1985, 1988), Czinkota & Johnston (1983), and Kirpalani and Macintosh (1983). This might be attributed either to the use of the aggregate measure (i.e., factor), or it might be due to the different sizes of the firms in the countries under investigation. The size of the Jordanian firms are quite small in comparison with those firms in developed countries, such as the U.K, U.S.A, etc.

In respect of the attributes of the "business experience" factor, the result indicates that there is no relationship between the firm's age and the probability of being an exporter. While this result is supported by Keng and Jiuan (1989) and Samiee & Walters (1991), it is found to be in conflict with Cavusgil and Naor's study (1987) who reported that the number of years in business (i.e., age) is an important attribute in differentiating between exporters and non-exporters. Also, Tseng and Yu (1991) reported that exporters have been in business for a significantly shorter period of time than non-exporters. The possible explanation for this disagreement might be due to the differences of business experience of the firms in the countries under investigation. Industrial development in Jordan is quite recent in comparison to business experience of firms in developed industrial countries, such as the UK.

The age of the decision-maker as one of the attributes of the "demographic" factor is not shown to be important in differentiating between the two groups. However, this result does not support previous
studies, such as those by Layton & Dunphy (1970) and Pinney (1968), which reported that exporters were more likely to be younger than non-exporters. The difference of findings might be attributed to the difference of the countries under investigation. In fact, managers at the higher level of management in Jordan are almost old (i.e., above 40 years). The survey indicates that about 70% of the managers interviewed were above 40 years old.

Previous studies, such as Kolhede (1984), Rabino (1980) and Sullivan & Bauerschmidt (1988, 1990) reported that government export incentives are not important either for exporters or non-exporters. However, the present results show that the government's export assistance and policies are regarded as important by the two groups. This disagreement might be attributed to the different abilities of the firms in the countries under investigation. Jordanian firms might not be in a position or able to export without the government's export assistance, because of the lack of financial resources and know-how.

In respect to the attribute of "education" factor, the study indicated that there is a relationship between the decision-maker's type of education and the firm's export behaviour. While this result is supported by many studies such as Holzmuller & Kasper (1990, 1991) and Simpson and Kujawa (1974), it is found to be in conflict with other studies such as Axinn (1985, 1988), Cavusgil and Naor (1987) and Bourantas & Halikias (1991). The possible explanation of this disagreement might be related to the differences between the respondents of the firms of the countries under investigation.
10.4 Research Contributions

Several contributions to existing knowledge are made in this research. These contributions are theoretical and practical.

10.4.1 Theoretical Contribution

(1) Extending the understanding of export behaviour by testing the phenomenon in a new environment. In the literature review, it was pointed out that most of the research in this area was conducted in developed countries. To the best knowledge of the researcher, export behaviour at the firm level has never been investigated in Jordan or in any other country similar to Jordan.

(2) In comparison with the previous studies conducted in the same field, this study might be considered to be more comprehensive in terms of the number of variables investigated, i.e., the internal and external environmental measures. In other words, the study might be one of a few attempts to investigate one hundred and eleven variables separately and together (i.e., 26 factors).

(3) This study has been conducted in a systematic manner. A conceptual framework was designed to guide it. The framework is based on the integration of the internal and external factors which are thought to influence export behaviour and the level of exporting. For more details, see chapter 4.

(4) The researcher also has developed some measures that relate to the firm's external environment, in particular, the measures of the political - legal environment in Jordan. To the best knowledge of the researcher, these measures have not been previously used in export studies (for more details, see Chapter 3).

(5) The findings of this study reinforce many findings of the previous works in this area. However, some conflicting results were
also reported, for example, the age of the decision-maker was irrelevant either to the level of exporting or export behaviour. These differences raise new explanations when variables are, or are not, relevant to export behaviour.

(6) To the researcher knowledge, this research might be one of the few studies in this area testing the reliability of the scale of measurement of data collection (for more details see Appendix [1]).

(7) To the researcher knowledge, the McNemar test might be employed here for the first time in export behaviour studies, namely, to test the improvement in the classification of group membership after the addition of the external environmental measures to the internal environmental measures.

10.3.2 Practical Contributions

The practical contributions of this study relate to the firm's management, international marketers, and public policy makers.

(1) The decision-makers of manufacturing firms will benefit from this study's findings. A better understanding of the factor determining export behaviour and the level of exporting will help them to implement the required changes within their organisations.

(2) International marketers will find this study relevant in understanding export behaviour of manufacturing firms in one of the developing countries (i.e., Jordan). As indicated in Chapter one, export behaviour has been mostly investigated in developed countries. Little is known about the export behaviour of manufacturing firms in developing countries. In investigating the export behaviour of manufacturing firms in Jordan, this research has added a new dimension to the existing knowledge about export behaviour.
(3) The public policy-maker will benefit from the findings of this study. A better knowledge of the factors that determine the level of exporting or export behaviour will help the Jordanian Government, in particular, to formulate an effective export promotion programme and to make the right changes with regard to the current export policies, procedures, facilities and assistances.

(4) A comparison between the results of the determinants of the level of exporting and the determinants of export behaviour was also reported (see Appendix [3]). This comparison will help both the public policy-makers and manufacturers in Jordan to implement the required changes within their organisations for the purpose(s) of either to improve the level of exporting or and to encourage other firms to become involved in exporting.

(5) The implications of the research findings are stated under two types of recommendations. These are: (a) recommendations for public policy-makers and (b) recommendations for current and potential exporters (see the next section 10.5).
10.5 Recommendations

The various analysis carried out in this research have provided detailed information about the possible factors that govern the level of exporting and export behaviour in Jordanian firms. Drawing from the key findings obtained from this empirical study, two types of recommendations can be addressed (see Table 10.1 and Table 10.2):

(1) Recommendations for current and potential exporters,
(2) Recommendations for public policy-makers

10.5.1 Recommendations For Current and Potential Exporters

a. The improvement of the level of exporting requires special emphasis on a number of the firm’s internal characteristics. The Stepwise Multiple Regression identifies that, out of the 16 factors of the internal dimension, only three factors as being significantly related to a high level of exporting. On this ground, we recommend that if any firm intends to improve its level of exporting, it needs to pay a special attention, at least, to these three most important factors and their associated attributes*: 1. "Willingness to change", 2. "Size of the firm", and 3. "Commitment to export related activities".

Based upon this above conclusion, the following actions are recommended for firms who want to improve their levels of exporting:

(1) The management should try to adapt (change) their marketing mix policies (i.e., pricing, distribution, product and promotion) to meet foreign markets requirements. This can be done by collecting more information about the foreign market environment to where firms want to export.

(2) The management should devote human and material resources to carry out the following export related activities; 1. promoting

* see Appendix [3] for detail of the attributes involved
their products to overseas customers 2. participating in international trade fairs, 3. keep sending sales representatives to foreign markets in order to explore and seek marketing opportunities in these markets, 4. using systematic research for the possibilities of increasing export sales, and 5. establishing a separate department for handling several export related activities.

(3) The firm should try to enlarge its business size in general and maximize the capital assets as much as possible in particular (see Appendix [3], factor 4).


In addition to those actions, the following are recommended for potential exporters:

(1) Management should match its firm's profile with the profile of those already involved in exporting. This will help the management to identify and implement the required changes within their organisation. A profile of the exporter's group is presented in Chapter 9.
Table (10.1)

Recommendations and Suggested Actions For Exporters and Potential Exporters

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Suggested Actions &amp; Activities</th>
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<tbody>
<tr>
<td>(A) Develop or improve commitment to export activities.</td>
<td><strong>[01]</strong> Firms should devote and allocate financial and human resources to undertake several important export marketing activities. These activities include:</td>
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<td>- Participation in international trade fairs (e.g., contact Jordan Trade Centre).</td>
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<td></td>
<td>- Hiring or training export sales persons (e.g., contact University of Jordan).</td>
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<td></td>
<td>- Hiring or using export sales agencies. Firms which are not able to establish their own distribution system in foreign markets can hire export agencies to sell on their behalf.</td>
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<td></td>
<td>- Sending sales representative to foreign markets for seeking export opportunities.</td>
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<td>- Establishing a unit or department to handle all of the export related activities.</td>
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<td>- Purchasing or collecting information about foreign market (e.g., contact Chamber of Industry).</td>
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<td></td>
<td>- Adapting or changing the firm's organisational and marketing policies to meet foreign markets requirements. These policies include modifying product, distribution and pricing policies.</td>
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<td>- Attending training courses on how to communicate with overseas markets (e.g., Jordan Training Centre).</td>
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<td>(B) Develop or improve the firm's differential advantages. These include: size, experience, technological strengths, innovations ...etc.</td>
<td><strong>[02]</strong> Enlarging the firm's size as much as possible. This can be done by increasing the number of employees, or increasing the capital investment. Based on the type of ownership, firms can increase their investment capital in many ways. For example, Joint Stock companies can issue new shares. Another alternative is to get loans from financial institutions, such as the Industrial Bank Development in Jordan.</td>
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<td><strong>[03]</strong> Increasing the rate of expenditure on R &amp; D for the purpose of making or innovating high quality products.</td>
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<td><strong>[04]</strong> Increasing or improving the firm's technological standard level. This can be done by modernising the current methods and equipments of production.</td>
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<td></td>
<td><strong>[05]</strong> Attending international conference or training course on how to reduce the costs of production. Price terms in foreign markets plays an important role in foreign markets. Therefore, costs of production should be minimized as much as possible.</td>
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<td><strong>C</strong></td>
<td>Managers Should develop or improve their international outlook.</td>
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<tr>
<td><strong>D</strong></td>
<td>Firms should remove or learn how to reduce their export operational obstacles.</td>
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<tr>
<td><strong>06</strong></td>
<td>Skills and qualities of management should be improved. This can be done by hiring new managers or attending training courses in this respect (e.g., contact Jordan Training Centre).</td>
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<tr>
<td><strong>07</strong></td>
<td>Improving foreign languages skills. (e.g., contact University of Jordan).</td>
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<td><strong>08</strong></td>
<td>Attending international conferences and/or seminars that are related to the aspects of export marketing.</td>
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<td><strong>09</strong></td>
<td>Subscribing to international trade periodicals.</td>
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<td><strong>10</strong></td>
<td>Organising frequent visits to overseas markets.</td>
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<td><strong>11</strong></td>
<td>Attending training courses on how to communicate with overseas markets (e.g., contact Jordan Training Centre).</td>
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<td><strong>12</strong></td>
<td>Getting in touch with the Governmental departments for the facilities and assistance they offer in respect to exporting (e.g., Jordan Trade Centre).</td>
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<td><strong>13</strong></td>
<td>Using or hiring export agencies to sell the firm's product in overseas markets.</td>
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<tr>
<td><strong>14</strong></td>
<td>Using or hiring export research agencies to collect the required information about foreign markets or contact the Chamber of Industry in this respect.</td>
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<td><strong>15</strong></td>
<td>Firms could form themselves into export groups. This unity might strengthen their abilities to overcome their export operational obstacles, (contact or join Jordan Export Trade Association).</td>
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<tr>
<td><strong>16</strong></td>
<td>Using assistance and facilities offered by different governmental departments (e.g., facilities offered by the Jordan Trade Centre and the Chamber of Industry...etc.).</td>
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<tr>
<td><strong>17</strong></td>
<td>Firms can seek help from similar firms experienced in exporting but not competing with them, and form other counselling centres available in Jordan such as the Royal Scientific Society in Jordan.</td>
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</table>
Managers should attempt to determine how foreign marketing can help accomplish their firms' goals, such as growth, making greater profit, keeping up with competitors, reducing the cost of production, etc. (see Appendix [3], factors 1 and 4).

Managers should try to improve their foreign language skills. This can be done through travelling or and attending training courses in foreign languages.

Managers should try to increase their foreign experience. Attending international business courses and subscribing to international trade periodicals are some ways by which managers can build and retain a realistic outlook in foreign markets, which is an important factor in determining firms' export behaviour.

Firms should try to improve and strengthen their competitive advantages in general and management skills and the level of technology (i.e., equipment and methods of production) in particular (see Appendix [3], factor 8).

Firms should try to develop and design a high quality and competitive price product for overseas customers (see Appendix [3], factor 7).

To reduce or remove export operational obstacles (see Appendix [3], factor 2), it is highly recommended for management to attend international trade conferences in this area, or training courses on export marketing in an attempt to learn how to overcome such problems.

10.2.3 Recommendations for Public Policy-makers

A direct implication of the findings of this study for the public policy formulation is that aggregate measures to stimulate export will not be effective unless they are coupled with measures taken at the individual firm's level. In other words, if the
government decides either to enhance the level of exporting, or to induce firms to move into exporting, it would be better to formulate export promotion programmes at the level of individual firms rather than setting them at a national level.

(2) The study's findings show that the factors determining the firm's level of exporting are quite different from the ones determining its export behaviour. This conclusion implies that different Government export promotional programmes are required, depending on whether the objective is to improve existing levels of exporting, or to encourage other firms to become involved in exporting. For more details, see Appendix [3].

(3) To improve the level of exporting, the Government should make a special effort on a number of the firm's external characteristics. The Stepwise Multiple Regression analysis identifies 5 out of the 10 factors of the external dimension as being significantly related to a high level of exporting. Accordingly, we recommend that if the Government intends to enhance the level of exporting, it needs to pay a special attention to, at least, these five most important factors and their associated attributes: 1. The "Foreign markets conditions", 2. "Export costs", 3. The "domestic market conditions", 4. "Government export policies and assistances", and 5. "Awareness of the government export policies and assistances. For detail about the attributes involved, see Appendix [3].

(4) To encourage firms to become involved in exporting, the Government should pay a special attention to a number of the firm's external characteristics. The DFA identifies that, out of the 10 factors of the external dimension, only seven factors of significant importance in discriminating between the two groups (i.e., exporters and non-exporters). Accordingly, we recommend that if the Government
Table (10.2)
Recommendations and Suggested Actions For Government to Improve and Encourage Export Involvement

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Suggested Actions and Activities</th>
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<tr>
<td><strong>[A]</strong> Governmental export procedures should be simplified with respect to time, costs and amount of paper work involved. These include: export licensing, inspection process and Customs procedures.</td>
<td><strong>[01]</strong> Establish a one stop department in the Industry of Trade to handle all the governmental export requirements, i.e., have one unit or department where the exporter can conduct and meet the governmental export procedures in a minimum of time and cost.</td>
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<td></td>
<td><strong>[02]</strong> Publicizing information about governmental export requirements and procedures. This might help the potential exporter to better understand and meet the governmental export requirements.</td>
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<td></td>
<td><strong>[03]</strong> Organising training courses or seminars for potential exporters on how to reduce the time and costs associated with conducting export procedures.</td>
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<td><strong>[B]</strong> Overcoming imperfections in the provision of the government's export assistance. These imperfections include the following:</td>
<td><strong>[04]</strong> Government should give export oriented firms more allowances for tax purposes.</td>
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<tr>
<td>- Inadequate tax incentives</td>
<td><strong>[05]</strong> Government should give more compensation for additional costs in export through tax reduction and profit tax exemptions. This would help the manufacturers to sell their products in competitive terms.</td>
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<td>- Payment procedures &amp; financial problems</td>
<td><strong>[06]</strong> Government should establish export credit guarantee system against non-payment risk.</td>
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<td><strong>[07]</strong> The Central Bank of Jordan should either abolish the bank guarantee requirement, or improve its terms with respect to the time &amp; the value amount of this guarantee.</td>
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<td><strong>[08]</strong> The Central Bank of Jordan should provide assistance in payment procedures for potential exporters by acceptance of the rediscount export bill in a good term.</td>
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<td><strong>[09]</strong> Government should offer the best exchange rate for potential exporters and current exporters. This might encourage or help firms to become involved in exporting.</td>
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<td><strong>[10]</strong> Publicizing instructions or organising seminars about the payment procedures in overseas markets.</td>
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<td>- Foreign market information &amp; communication</td>
<td>[12] Establishing a databank unit or department at the Chamber of Industry for providing information about foreign markets environmental characteristics.</td>
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<td>[13] Encouraging the establishment of specialized trade offices for collecting information about foreign markets.</td>
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<td></td>
<td>[14] Organising seminars or training courses on how to get information about foreign markets.</td>
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<td>[16] Publicizing information about foreign markets.</td>
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<td></td>
<td>[17] Producing brochures about potential foreign markets.</td>
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<td></td>
<td>[18] Encouraging participation in international Trade fairs.</td>
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<td></td>
<td>[19] Designing export training courses or / and seminars covering all aspects of export marketing (insurance, shipment, banking, etc.).</td>
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<tr>
<td></td>
<td>[20] Publicizing instructions or / and organising seminars about the customs duties facilities. This can be done in cooperation with academic institutions in Jordan.</td>
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<td></td>
<td>[21] Simplifying the procedures concerning using these facilities.</td>
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<tr>
<td>- Customs Duties facilities including duty - drawback system and temporary entry schemes.</td>
<td>[22] Encourage establishment of specialized trade companies or export agents in the domestic market in order to export Jordanian products and give those companies similar incentives which are given to exporters.</td>
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<td></td>
<td>[23] Government should attempt to reduce costs associated with obtaining such facilities by setting new regulations that affect the price of these facilities, in particular, using communication and transportation facilities for export purposes.</td>
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<td></td>
<td>[24] Encouraging the commercial banks to give short and long terms loans to export oriented firms. This can be guaranteed by the Central bank of Jordan.</td>
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<td></td>
<td>[25] Providing training courses or seminars on how to reduce the cost of obtaining transportation, warehouses and communication facilities related to export activity.</td>
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<tr>
<td>[26]</td>
<td>Organising seminars or designing promotional programmes with the objectives of creating knowledge and awareness regarding the types of export assistance that government offers to the exporters.</td>
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<tr>
<td>[27]</td>
<td>Organising seminars for exporters and potential exporters on how to benefit from governmental export assistances and facilities. This can be done in cooperation with colleges and universities in Jordan.</td>
</tr>
<tr>
<td>[28]</td>
<td>Publicizing information about the available types of assistance from which firms could benefit from when they become involved in exporting.</td>
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<tr>
<td>[29]</td>
<td>Establishing a unit or a department in the Ministry of Trade to give the relevant information to the exporter’s needs.</td>
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<tr>
<td>[30]</td>
<td>The Government should help potential exporters to overcome problems related to foreign governments trade restrictions. This can be done by making bilateral trade agreements with foreign governments.</td>
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[Table continued on following page]
wants to induce firms to become involved in exporting, it needs to pay
a special attention to, at least, these seven most important factors
and their associated attributes: 1. "Awareness of the government's
export policies and assistance", 2. "Government's export policies and
conditions", 5. "Government export procedures related problems",
6. "Physical distribution related problems", and 7. the "Domestic
market conditions". For detail about the attributes involved, see
Appendix [3].

The following actions are recommended, whether the Government
intends to enhance the firms' levels of exporting or/ and encourage
other firms to become involved in exporting:

(5) The Government should take corrective action concerning some
current export measures, including: export polices, procedures,
facilities and assistances. The following are recommended in the light
of the study's findings (see Appendix 3, Factors 17, 18, 19 and 20):
- The Government's export procedures should be simplified. In
other words, the amount of paper work required, the costs, and
time associated with export procedures need to be reduced
as much as possible. In particular, the export licence
requirement, the inspection process and the custom procedures
should be closely examined for simplification.
- The Government should design educational programmes with the
purpose of creating awareness of its export facilities and
policies. Special educational and promotional programmes should
be developed to inform firms about the duty - drawback system
facilities, because these were not known by a large number of
manufacturing firms.
- The Government should simplify the current payment procedures in general, and the bank guarantee requirement in particular, because they were found to be the most important problems regarded by firms, either those who want to improve their level of exporting or those who want to become exporters.

- The Government should seek to remove export barriers in its aim to stimulate export. For example, the Ministry of Trade should organize counselling sessions that cater for individual firms' enquire. Such measures might help to remove some anxieties about exporting problems.

(6) The Government should establish Commercial - Attaches or trade centres wherever possible. Such measure is expected to be helpful for a firm which wants to enter foreign markets as an exporter. The study's finding in this respect showed that the lack of Commercial - Attaches in foreign market is regarded as an important problem by current and potential exporters. A summary of results on this issue is provided in Appendix (3), Factor 19.

(7) Information about potential foreign markets should be updated and circulated among manufacturing firms by whatever possible media. Lack of reliable information about foreign markets is considered as one of the most important problems that inhibit or discourage firms either to become involved in exporting or to improve their level of exporting.

(8) The Government should design export training courses or organise seminars on export marketing. This can be done by cooperating with the colleges and universities in Jordan. Special programmes or courses can also be developed to increase management's perceived gains from undertaking exporting activity. These can also include reduction
of obstacles, reduction of risks and costs associated with undertaking export activities.

(9) The Government should establish an export credit guarantee system against non-payment risks. A lack of export credit guarantee against non-payment risk is regarded as an important problem by both the current exporters who wish to increase their level of exporting, and potential exporters who wish to enter foreign markets as exporters.

(10) The Government needs to provide more trade incentives and facilities in general and tax incentives for export oriented industries in particular. Inadequate tax incentive for export oriented industries is regarded as one of the main problems by current and potential exporters (see Appendix [3], factor 3).

(11) The Government policies should foster growth in export development through counselling and training programs including mechanics of exporting, export documents and the use of the Government's export facilities.

(12) The Government should use its advantage with foreign government to support export sales by the Jordanian firms. It can provide such support through bilateral trade agreement with foreign government. This will also help the Jordanian firms to overcome problems that relate to foreign governments trade restriction.

(13) The Government should also take corrective actions in respect of the current infrastructural facilities existing in the domestic market. These facilities are found to hinder rather than stimulate export. In order of their importance, they are (1) transportation facilities and (2) warehouse facilities.
10.4 Research Limitations

(1) The study was tested in one geographic area, i.e., it was only conducted in the Jordanian environment. Therefore, the lack of external validity of this research means that any generalization of the research findings should be taken with caution.

(2) The data analysis was cross-sectional. As with all cross-sectional studies, the parameters tended to be static rather than dynamic. This drawback limits the generalization of the study's findings to further situations and beyond the specific population from which the data was gathered.

(3) The study used the single informant approach for data collection, i.e., the data were collected from a key person in each organisation (see Chapter 5, section 5.5). This approach might not provide the best view of the organisation as a whole. However, by using the multiple informant approach (i.e., more than one person in each organisation) in future research, the problem of aggregate responses should be solved.

(5) Because of the time and cost associated with data collection, the study population was confined to six types of industrial sectors. Therefore, the generalisation of the results beyond these industrial sectors should be taken with caution.

10.5 Areas for Further Research

Since this is the first study to address the export behaviour of manufacturing firms in Jordan, there are many issues that could not be covered in this research and deserve further research. The suggested areas for further study are as follows:

(1) The external validation of the current research findings. It is important that part of the future research be directed towards the
replication of the findings of this research. It is suggested that future researches should use the same dimensions of the internal and external environment.

(2) Future studies should be directed to investigate the same phenomena in other types of industrial sectors.

(3) In this research, the level of exporting was measured by one criterion for the reasons explained in Chapter 4. Future research is required to develop multiple measures for the level of exporting. The purpose would be to find out whether there is any difference between the results of using one criterion and the results of using multiple criteria together.

(4) Future research is required to explore and develop more measures relating to the firm's external environment. These could be incorporated with others already investigated. The purpose is to extend the number of aspects of the firm's external environmental measures, and to verify the results which were obtained in this study.
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