

*Full Length Research Paper*

# Perceived export barrier differences among exporters: Less developed economy evidence

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**This study aims to identify some of the barriers that may hinder potential exporters in a developing nation. It is hypothesized that firms with high export experience will perceive a lower level of export barriers than those with low export experience (H<sub>1</sub>), and firms with high export commitment will perceive a lower level of export barriers than those with low export commitment (H<sub>2</sub>). The analysis was carried out on 228 Saudi Arabian manufacturing firms that obtained certificate of origin (COO) which is required for exporting. The factor analysis produced five factors: government policy, procedural and technical complexity, perceived strategic limitation, contextual differences, and export cost and profitability. Multivariate analysis of variance (MANOVA) analysis on these factors showed significant export experience (EE) main effect at the 0.05 level. The export commitment (EC) main effect is significant at the 0.10 level. To determine which factors are responsible for the statistically significant MANOVA main effects, univariate tests were performed for each of the five individual factors. The results indicate that firms with high export experience show a much lower level of perceived procedural and technical complexity barrier and export cost and profitability barrier. In addition, firms with high export commitment perceive a much lower level of the government policy and procedural and technical complexity barriers than those with low export commitment. The results also point that neither export experience nor export commitment can help firms overcome the perceived strategic limitations and contextual differences in exporting. Implications of the findings are discussed. The results provide partial support for both hypotheses 1 and 2.**

**Key words:** Export barriers, export obstacles, export experience, export commitment, Saudi Arabia, Arab, international business, international marketing.

## INTRODUCTION

The past several decades witnessed phenomenal growth in trade globalization which changed individual nations in terms of economic development strategies undertaken by national governments.

Many nations are pursuing export-led growth strategies. This phenomenon is documented in the 2009 International Trade Statistics in which the World Trade Organization (WTO) reports the following statement

*“Data in real terms show that world gross domestic product (GDP) and world merchandise exports not only move in tandem, but that export growth exceeds GDP growth. Growth of world GDP is associated with an even higher growth in international trade”* (WTO, 2009: 1).

This export-driven growth strategy is followed because exporting brings substantial benefits for both governments and firms. At the government level, exporting provides the economy with socio-economic development, creates linkages in the economy, generates hard currencies, generate spillover effects, improves productivity, and increases employment

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opportunities (Bertschek, 1995; Czinkota and Ronkainen, 1995; Kumcu et al., 1995; Katsikeas and Skarmas, 2003; Leonidou and Kaleka, 1998; Marin, 1992; Onkvisit and Shaw, 1993; Sharpe, 1995).

Many developing countries are pursuing promotion of manufactured exports as an engine of growth and the literature suggested that researchers should pay attention to exports, particularly to manufacturing exports. One possible reason is that manufacturing exports help create a middle class that favors further strengthening of the economic institutions (Johnson et al., 2007).

However, these countries faced many barriers to export – some of which are macro and market-oriented (Corden and Neary, 1982; Edwards, 1991; Charos et al., 1996; Sachs and Warner, 1995; World Bank, 1993). There are also, micro or firm-level barriers that hinder exports (Bilkey, 1978; Cavusgil and Zou, 1994; Tesfom and Lutz, 2006).

At the firm level, exporting contributes to enhanced innovation and performance, elevated managerial skills and capabilities, diversified local business risk, increase in company's financial position, improved utilization of firm resources, and increased beneficial involvements in foreign markets that may lead to stronger position in the domestic market (Bertschek, 1995; Katsikeas et al., 2000; Kumcu et al., 1995; Lages and Montgomery, 2004; Terpstra and Sarathy, 2000; Young and Wilkinson, 1989). In his comprehensive analysis of export barrier literature, Leonidou (2004) pointed out that most research took place in a developed country (that is, North America and Europe).

He further stated that topical research in developing countries virtually was absent. It should be noted that very few were undertaken in Arab context. This is also true in the case of Saudi Arabia even though its non-oil export accounts for about 10 to 11% of total exports in the past decade.

However, its non-oil export is large compared to other Arab markets. In 2008, total Saudi exports were over \$ 313 billion of which manufactures (one of non-oil export sector) accounted for 8.6% or \$26.85 billion. This manufactures level is larger than the combined figure for Egypt, Jordan and Morocco for the same year (WTO, 2009a, b). Hence, Saudi non-oil export sector, albeit small in relation to the size of its economy, warrants investigation.

One of the important research questions is why some Saudi non-oil-sector firms export and others do not. An important explanation offered in previous research is that firms perceive substantially different barriers or obstacles to exporting. In order to make nonexporters or current exporters to start or increase exporting, certain "threshold fear" or obstacles must be overcome (Guido, 2005; Hornby et al., 2002). It is well accepted in the literature that export development and firms' involvement in exporting play a critical role in explaining perceived export barriers (Czinkota and Ricks, 1983; Ford and

Leonidou, 1991; Sharkey et al., 1989; Tesfom and Lutz, 2006).

This study builds on this research stream by examining the influence of a firm's export development and involvement on perceptions about export barriers. Specifically, this study investigates the effects of Saudi firms' export experience and export commitment on their perception of various export barriers. It is postulated that export experience and commitment can reduce the perceived level of export barriers.

The rest of this paper is organized as follows: Subsequently the study reviews the literature pertaining to both export barriers and export experience and commitment. Then it explains the research methods, the sample, the procedure, and the variables. After which discusses statistical results such as factor analysis, reliability, and multivariate analysis of variance (MANOVA). Discussion of the finding was then presented. Finally, concluding remarks regarding the study was provided.

## LITERATURE REVIEW

### Export barriers

Export activities are believed to represent the involvement of international businesses globally (Hansen et al., 1994). Exporting is the most frequently used approach of business involvement in the global marketplace as exporting is considered to involve minimum business risks, low commitment of resources, and high flexibility of actions. Leonidou (2007) posits that exports are the means of job creation, a basis of foreign exchange, helps in the growth of emerging technologies, provides mutual associations in the economy and increase living standards. On the other hand, many businessmen are restrained to invest in export operations due to embarrassment of some factors like attitudes, structure, procedures and operations (Bauerschmidt et al., 1985; Kedia and Chhokar, 1986).

Numerous attempts have been made to examine different export barriers in the past (Bilkey, 1978; Miesenbock, 1988; Aaby and Slater, 1989; Sharkey et al., 1989; Cavusgil and Zou, 1994; Katsikeas, 1994; Katsikeas and Morgan, 1994; Al-Torkistani, 1995; Leonidou, 1995a; b; Bell, 1997; Morgan, 1997; Al-Aali, 1999; Leonidou, 2004; Tesfom and Lutz, 2006). Table 1 summarizes the most common export barriers cited in literature that are relevant to this study.

Exporting firms face a variety of export barriers. The type of export barriers may vary depending on the phase of the internationalization process (Bilkey and Tesar, 1977; Bilkey, 1978). The nature of the barriers and their related frequency and significance tend to vary by the export stages of the firm (Ford and Leonidou, 1991; Bilkey, 1978).

**Table 1.** Export barriers studies.

<b>Barrier</b>	<b>Authors</b>
Price competition in foreign market	Bauersmidt et al. (1985), O'Rourke (1985), Kedia and Chhokar (1986), Gripsurd (1989), Ramaswami and Yang (1990), Naidu and Rao (1993), Katsikeas and Morgan (1994), Leonidou (1995), Moini (1995) and Al-Aali (1999).
Excessive costs of logistics	Bauersmidt et al. (1985), O'Rourke (1985); Bodur (1986); Gripsurd (1989); Ramaswami and Yang (1990); Barker and Kaynak (1992); Yang et al. (1992); Katsikeas and Morgan (1994); Al-Torkistani (1995); Leonidou (1995); Moini (1995); Al-Aali (1999).
High cost of production	Rabino (1980); Keng and Jiuan (1988); Katsikeas and Morgan (1994); Leonidou (1995); Al-Aali (1999).
Inability to identify foreign opportunities	Bilkey (1978); Bauersmidt et al. (1985); Kedia and Chhokar (1986); Westhead et al. (2002).
Limited foreign markets information	Bodur (1986); Sullivan and Bauersmidt (1988); Keng and Jiuan (1988); Ramaswami and Yang (1990); Korth (1991); Naidu and Rao (1993); Katsikeas and Morgan (1994); Al-Torkistani (1995); Leonidou (1995); Moini (1995); Al-Aali (1999); Hutchinson et al. (2006).
High tariffs in importing countries	Ramaswami and Yang (1990); Yang et al. (1992); Al-Torkistani (1995); Katsikeas and Morgan (1994); Al-Aali (1999).
High cost of imported raw materials	Al-Aali (1999).
Low profitability of exported products	Al-Aali (1999).
Shortage of experienced export staff	Rabino (1980); Bauersmidt et al. (1985); Bodur (1986); Keng and Jiuan (1988); Ramaswami and Yang (1990); Korth (1991); Eshghi (1992); Barker and Kaynak (1992); Yang et al. (1992); Naidu and Rao (1993); Katsikeas and Morgan (1994); Al-Torkistani (1995); Leonidou (1995).
Inadequate export financing program	Bauersmidt et al. (1985); Bodur (1986); Korth (1991); Barker and Kaynak (1992); Naidu and Rao (1993); Katsikeas and Morgan (1994); Al-Torkistani (1995); Al-Aali (1999).
Limited government promotion programs	Bauersmidt et al. (1985); Bodur (1986); Christensen et al. (1987); Sullivan and Bauersmidt (1988); Ramaswami and Yang (1990); Barker and Kaynak (1992); Karakaya (1993); Naidu and Rao (1993); Al-Torkistani (1995); Leonidou (1995); Al-Aali (1999).
Difficulty in managing foreign distribution channels	Rabino (1980); Bauersmidt et al. (1985); Bodur (1986); Kedia and Chhokar (1986); Keng and Jiuan (1988); Keng and Jiuan (1988); Gripsurd (1989); Karakaya (1993); Katsikeas and Morgan (1994); Leonidou (1995); Moini (1995); da Silva and da Rocha (2001).
Presence of high risk in exporting	Rabino (1980); Bauersmidt et al. (1985); Mayo (1991); Eshghi (1992); Karakaya (1993); Al-Torkistani (1995); Al-Aali (1999); Hise (2001).
Fluctuations in foreign exchange rates	Bauersmidt et al. (1985); Kedia and Chhokar (1986); Katsikeas and Morgan (1994); Al-Torkistani (1995); Leonidou (1995); Al-Aali (1999).
Difficulty adapting foreign promotion activities	Bauersmidt et al. (1985); Bodur (1986); Sullivan and Bauersmidt (1988); Keng and Jiuan (1988); Donthu and Kim (1993); Katsikeas and Morgan (1994); Moini (1995).

Table 1. Continued.

Difficulty developing new products for foreign markets	Rabino (1980); Bauerschmidt et al. (1985); Bodur (1986); Sullivan and Bauerschmidt (1988); Keng and Jiuang (1988); Donthu and Kim (1993); Naidu and Rao (1993); Katsikeas and Morgan (1994); Leonidou (1995); Moini (1995); da Silva and da Rocha (2001).
Existence of substantial differences in exported products	Bodur (1986); Gripsurd (1989); Yang et al., (1992); Karakaya (1993); Katsikeas and Morgan (1994); Al-Torkistani (1995); Leonidou (1995); Al-Aali (1999).
Unfamiliarity with export procedures and regulations	Rabino (1980); Bauerschmidt et al. (1985); Kedia and Chhokar (1986); Ramaswami and Yang (1990); Korth (1991); Mayo (1991); Barker and Kaynak (1992); Eshghi (1992); Yang et al. (1992); Naidu and Rao (1993); Katsikeas and Morgan (1994); Al-Torkistani (1995); Leonidou (1995); Moini (1995); Al-Aali (1999).

Bilkey (1978), in his pioneering work, identified various obstacles to exporting. Bauerschmidt et al. (1985) categorized export barriers into five factors. These factors were labeled as national export policy, comparative marketing distance, and lack of export commitment, exogenous economic constraints and competitive rivalry. Taking the managerial point-of-view, Korth (1991) formulated a classification of export barriers considering the firm's limited ambition, unrecognized opportunities, lack of necessary resources, and unrealistic fear and managerial inertia.

Leonidou (1995b) classified export barriers broadly as internal or external. Internal barriers are associated with organizational resource capabilities and a company's approach to export business. External barriers stem from the home and host environment within which the firm operates. One of the elements of informal export barriers is bureaucracy, which can be considered an external barrier (Porto, 2005). Kaleka and Katsikeas (1995) investigated export barriers of the regular and sporadic exporters. Morgan and Katsikeas (1998) identified three groups of export barriers; strategic barriers, operational barriers, and informational barriers.

Some previous research studies have reported barriers to exporting in an Arab-context. Al-Aali (1995a) examined barriers of Saudi Arabian food and chemical exporters. Al-Torkistani (1995) surveyed the six-Gulf Cooperation Council firms (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates). He uncovered five export barrier factors. Another export barrier study by Al-Aali (1999) found eight export barrier factors.

Leonidou (2004) suggested the existence of internal and external barriers. He further broke down the internal barriers into functional, informational, and marketing. The external barriers are grouped under procedural, governmental, task, and environmental. Shaw and Darroch (2004) categorized export barriers into five broad areas: financial, managerial, market-based (including both domestic and international markets), and industry

specific and firm specific. Similar classification of export barriers that include financial, managerial, market-based (including both domestic and international markets), industry specific and firm specific barriers have been presented by many researchers (Altintas et al., 2007; Pinho and Martin, 2010). Although many previous export barrier studies have been reported in the literature, there exists a need for understanding what factors can lead to a lower level of perceived export barriers.

### Export experience and commitment

Traditionally, exporting has been assumed to follow an evolutionary process (Cavusgil, 1984; Johanson and Vahlne, 1977; Johanson and Weidersheim-Paul, 1975; Weidersheim-Paul et al., 1978; Vernon, 1966), which is typically presented with firms passing through a series of stages before becoming mature exporters. Leonidou and Katsikeas' (1996) review details the various stage models proposed in the literature. While there is research supporting an evolutionary process, the stage theories cannot explain export performance in every case (Anderson, 1993; Diamantopoulos and Inglis, 1988; Millington and Bayliss, 1990; Reid, 1983; Sullivan and Bauerschmidt, 1989; Turnbull, 1987; Calof, 1993). In some countries, there may be significant demand for certain products that will lead firms to become active exporters fairly early.

On the other hand, a firm may be successful in its home country, but it may not be able to find opportunities abroad even in countries that are culturally and psychologically close. In such situations, the firm may have to go through several attempts at exporting and invest significant amounts of resources before establishing itself in foreign countries. Sometimes, it may opt for other forms of foreign market entry, such as licensing or foreign direct investment.

Leonidou and Katsikeas (1996) and Anderson (1993) discuss the limitations of stage models. Leonidou and Katsikeas (1996) suggest that despite the fact that export

development is highly dynamic and time-dependent; almost all the models are static in nature. All of these proposed models describe underlying export marketing activities with a minimum of 3 stages and a maximum of 6 stages.

While many researchers raise doubts about the export stage models using the static parameters to measure dynamic phenomenon (Dalli, 1994; Leonidou and Katsikeas, 1996), it is well accepted in the literature that firms reach to a certain stage of export development. In the current dynamic market environment, a firm may switch back and forth between various modes of foreign market participation as well as between exporting stages (Welch and Luostarinen, 1988) and it may be at any of the various stages in different countries. Regardless of the process of reaching various stages, a firm's degree of export involvement and level of export development are critical in determining its export stage.

One of the major factors that distinguish exporters from non-exporters is management's perception of barriers to exporting (Diamantopolous and Inglis, 1988). Previous research in exporting suggests that the differential perception of export barriers may be explained by the level of export development of firms (Bilkey, 1978). Leonidou (1995a) indicates that barriers are latent until other forces, such as the decision maker, organization or environment, activate them.

It has been found that a firm's export experience has a positive effect on export performance (Madsen, 1989), the degree of internationalization (Dominguez and Sequira, 1993) and attitude towards future export (Gripsrud, 1990). Export experience literature refers it as knowledge gained through experience from business operations overseas thus generating opportunities and is a driving force for internationalization of the firm (Johanson and Vahlne, 1990).

Furthermore, firms with high level of export experience tend to perceive less uncertainty and perceived barriers in their exporting activities and possess a better understanding of export market forces (Madsen, 1989; Al-Aali, 1999) and thus achieve better export performance (Aaby and Slater, 1989). Moreover, high involvement exporters exhibit a greater internal capability to develop a sound competitive stance (Katsikeas, 1994).

Firm characteristics comprise demographic aspects, operating elements, resource characteristics, and goals and objectives of exporting firm (Leonidou and Kaleka, 1998). There is consensus that larger firms possess more managerial and financial resources, have greater production capacity, attain higher levels of economies of scale and tend to be associated with lower levels of perceived risks in export operations (Bonaccorsi, 1992) and can be crucial in facilitating development and sustenance of a sound export competitive position for an exporting firm (Katsikeas, 1994).

Extant research shows a positive relationship between size of the firm and export performance (Christensen et

al., 1987; Culpan, 1989; Cavusgil and Naor, 1987). Firms engaged in relatively higher exporting activity employ larger number of staff in the export function and have better organized export departments (Diamantopolous and Inglis, 1988; Al-Aali, 1999). Diamantopolous and Inglis (1988) have shown that one of the major factors distinguishing between the high and low involvement exporters relates to the allocation and organization of export personnel.

Al-Aali (1999) found that high export involvement exporters perceive lower operational constraints than high involvement exporters. He also reported that the low involvement and irregular exporters perceive higher export policy and foreign market risks than the high involvement and active exporters.

Cavusgil and Zou (1994) have shown that besides such factors as export market strategy and the management's international competence, managerial commitment is a key determinant of export performance. The development of top management commitment to exporting is certainly a learning process. The ongoing learning process about internationalization has been suggested to have an intrinsic value "irrespective of the form of internationalization" that outweighs the cost (Lu and Beamish, 2001).

The extent to which exporting is pursued as a strategy depends on the available resources and purpose of exporting. If a firm is pursuing exporting as a strategy, it is critically important to make a strong commitment to exporting and devote financial and human resources necessary to build the support to export. Many important tasks such as assessing foreign market potential, formulating policies about exporting and producing for sales abroad require resource allocation and top management support (Cavusgil, 1984).

Without proper resource allocation, a firm may find itself in the initial stages of exporting for long periods of time and may not make significant progress in tapping international markets. Researchers have shown that a highly committed management depicted by a separate export department in the firm and optimum staff in the export department, can lead to lower perceived export barriers leading to higher export performance (Leonidou, 2000). Leonidou (1995b) has reported lack of experience to strange culture and shortage of skillful human resource as one of the strong barriers to exporting.

Similarly, Arteaga-Ortiz (2003) recognized this barrier as the most important barrier perceived by small and medium firms. The competitive capacities will only be able to unfold if management with a disposition for it and an environment in which capacities can unfold exist (Alonso and Donoso, 2000).

As some firms recognize export as a high risk activity (Karelakis et al., 2008), it is important to have strong management commitment and available resources to pursue exporting activities. Therefore, the following hypothesis will be tested:

**Table 2.** Sample descriptive statistics.

Characteristic (n=228)	Mean	Std. Dev
Firm number of employees	2876.47	5734.55
Firm export experience (Years)	12.57	7.83
Export department exists (%)	67	47
Export department age (Years)	11.50	7.90
Number of export department full-time staff	9.72	23.92

Hypothesis 1: Firms with high export experience will perceive a lower level of export barriers than those with low export experience.

Hypothesis 2: Firms with high export commitment will perceive a lower level of export barriers than those with low export commitment.

## RESEARCH METHOD

A survey method was utilized in this study. We focused on the main export ventures of exporters from Saudi Arabia. We chose this setting due to three specific reasons: First, our selection of a firm's main export venture as a unit of analysis derived primarily from exploratory interviews that indicated that Saudi exporters typically developed a marketing strategy only for their main export venture. Besides, the focus on a single export venture allowed us to associate export barriers incisively with its independent variables, as the main export venture involved a single product or product line exported to a single foreign market. Second, Saudi Arabia was selected because of an interesting interplay of market forces, acting in favor of the Kingdom particularly in Gulf Cooperation Council (GCC) countries, prompting it to export. Third, Saudi Arabia being predominantly a major oil producing nation with its economic growth thereby directly linked to its oil exports, the Government in Saudi Arabia seems committed on boosting non-oil business sectors in general. The Ninth Development Plan (2010 to 2014), created by the Ministry of Economy and Planning, aims for the country to raise non-oil exports by 10% per year, on average. Actually, between 2000 and 2009, non-oil exports grew an average of 18.2% per year (Banque, 2010).

### The sample

The firms thus selected for the study were contacted and asked to have the person most involved with the daily administration of the exporting functions complete the survey. Each firm received a covering letter and the questionnaire along with complete information such as e-mails of the authors, fax numbers and telephone numbers, etc. for receiving the responses. Each firm was duly followed up for ensuring their responses.

The sampling framework was obtained - in electronic format - from the Ministry of Commerce and Industry (2009) of Saudi Arabia which issues the certificate of origin (COO) that is required for exporting. Many of these companies received multiple COO in a given year. The population of the study is all manufacturing firms that applied for COO in the Riyadh region. The list included the names of 1278 firms that were issued the COO.

Furthermore, the list contained full location address of each company including telephone and fax numbers. A random sample of 34 percent yielded 511 firms that were contacted to participate in the study. Graduate and upper level undergraduate students in the

business school were trained to collect data. Several methods of data collection were utilized.

The questionnaires were distributed to the sample firms – mostly – by personal visits of data collectors to the firms. In this case, personal interviews were conducted or the questionnaire was left with firm and later collected. In some cases, fax and emails were employed.

After data checking, 11 questionnaires were deemed unusable out of 239 collected. The analysis was carried out on 228 respondents yielding a response rate of 44.6%. The average export experience of sample firms is 12.6 years. Over 66.2% of the sample reported having a separate export department. The export departments, on average, were established 11.5 years ago, with 8% of them being established over 21 years. Those exporters with a separate export department, on average, have strength of 9.7 full-time staff. The sample firms' average export sales to total sales (export intensity) were 28.65% in 2007 and grew to 30.03% in 2008, recording a growth of 4.8%. Around two-thirds (65.8%) of the respondents were export/marketing managers.

The current results indicate the tremendous growth of non-oil exports compared to previously reported average export age (4.4 years), average export intensity (12.78%) and percent of exporters having a separate export department (12.1%) (Al-Aali 1995a, b). Table 2 details the profile of the respondents, while Table 3 provides mean responses of the export barriers.

### Procedure

The instrument was prepared in these stages. The first stage consisted of refining the English version of the survey instrument and cover letter. The initial survey format was developed based upon extant literature on the subject. Next, the survey instrument was translated and back translated. In order to avoid translation errors, a different researcher translated the questionnaire into English. During this stage, the content and face validity of the items were assessed by two judges (university professors in marketing); each judge was asked to assess how representative each item was of final construct. The survey was revised according to their comments. The survey instrument contained question items measuring export barriers, export performance, firm exporting behavior, and respondent characteristics. Respondents were first asked the qualifying question of whether they had exported before or were currently exporting. Only those firms that had exporting experience were qualified to participate in the survey.

### Variables

A review of the present export marketing literature revealed many items classified as export barriers. Eighteen items were selected for inclusion in the current study. The selection was made to elucidate the character of the export barriers likely to be encountered by Saudi non-oil exporting firms. These items were

**Table 3.** Mean responses of the export barriers.

S/N	Export barriers	Mean	Std. Dev
1.	Limited information about foreign markets	3.7783	1.03174
2.	Shortage of experienced or trained personnel for exporting	3.6847	1.03843
3.	Limited ability in identifying foreign business opportunities	3.8079	0.95313
4.	Inadequate export financing program	3.6749	1.06367
5.	Difficulty in developing new products for foreign markets	3.3448	0.99966
6.	Existence of substantial differences in exported products	3.3103	1.03275
7.	Stiff price competition in foreign market	3.9507	0.87174
8.	Difficulty in managing foreign distribution channels	3.4680	1.06831
9.	Low profitability of exported products	3.7143	0.93721
10.	Excessive costs of logistics	3.8522	1.02823
11.	High cost of imported raw materials	3.7389	0.99792
12.	Difficulty of adapting promotion activities to the foreign market	3.3990	1.02126
13.	Lack of familiarity with export procedures and regulations	3.2956	1.16947
14.	Presence of high risk in exporting	3.4680	1.18685
15.	Severe fluctuations in foreign exchange rates	3.4138	1.20486
16.	Limited government export promotion programs	3.5369	1.16141
17.	High cost of production	3.8325	0.85685
18.	High tariffs in importing countries	3.7931	1.01793

operationalised in a questionnaire format and were pre-tested to gauge the clarity and relevance of the research questions. Accordingly, each respondent was requested to rate the importance of the barrier on a five-point Likert scale, ranging from "not at all important" coded 1 to "extremely important" coded 5.

In this study, the effects of the independent variables (that is, factors) were investigated each by itself and in interaction with each other on the dependent variable. When more than one independent variable is included in a research study, a factorial design is necessary (Best and Kahn, 1989).

In a factorial design, the goal is to estimate the main effects and the interaction effects that may positively or negatively reinforce the main effect. In this study, a 2 by 2 factorial design was adopted with two levels (low and high) of the export experience variable and two levels (low and high) of the export commitment variable.

Operationalizing the two independent variables was accomplished by classifying exporting firms into various levels based upon the firm's export experience and commitment. The 5 point Likert scale items were used to measure the firm's export experience and commitment. The firms were placed in the high export experience group if they have more than ten years of export experience and in the low export experience group if they have ten or less than ten years of export experience. The firms were classified into the high export commitment group if they have a formal exporting department with more than five full time exporting personnel and into the low export commitment group if either they do not have a formal exporting department or have a formal exporting department with five or less than five full time exporting personnel.

## RESULTS

### Factor analysis, mean values, and reliability

The barrier items were subjected to exploratory factor analysis in order to assess construct dimensionality.

Responses to the multi-item measures were factor analyzed using a principal component factor analysis. The factors in each variable were Varimax rotated. The final principal components analysis using Varimax rotation identified five factors using an eigenvalue of 1 or greater as the criterion.

Results of the factor analysis are shown in Table 4. The factor analysis results showed 61.2% of variances explained by the measurement items. As a part of the measurement item purification process, any items cross loading to other factors or with factor loadings of .50 or lower are deleted from the final scale items. Two items were excluded from further analyses. These items were: difficulty in developing new products for foreign markets and difficulty of adapting promotion activities to the foreign markets.

The four items that loaded on the first factor included inadequate export financing program, limited government export promotion programs, high cost of production, and high tariffs in importing countries. This factor will be referred to as government policy. Cronbach's alpha of 0.72 indicates an adequate level of reliability.

The second factor is a measure of perceived procedural and technical complexity since it includes lack of familiarity with export procedures and regulations, presence of high risk in exporting, and severe fluctuations in foreign exchange rates. Cronbach alpha was calculated for this factor at 0.78 indicating an acceptable level of reliability.

The third factor includes limited information about foreign markets, shortage of experienced or trained personnel for exporting, and limited ability in identifying foreign business opportunities. This factor will be

**Table 4.** Factor analysis results.

Export barriers	Factors				
	F1	F2	F3	F4	F5
16. Limited government export promotion programs	0.748	0.070	0.243	0.104	0.171
18. High tariffs in importing countries	0.708	0.290	-0.008	0.198	0.024
4. Inadequate export financing program	0.613	0.137	0.285	0.267	-0.008
17. High cost of production	0.576	0.207	0.104	0.064	0.170
13. Lack of familiarity with export procedures and regulations	0.129	0.742	0.247	0.047	0.168
15. Severe fluctuations in foreign exchange rates	0.285	0.697	0.192	0.051	0.164
14. Presence of high risk in exporting	0.323	0.687	0.210	0.210	0.063
1. Limited information about foreign markets	0.198	0.148	0.797	0.073	0.058
3. Limited ability in identifying foreign business opportunities	0.285	0.179	0.742	0.195	0.057
2. Shortage of experienced or trained personnel for exporting	0.012	0.353	0.646	0.197	0.154
6. Existence of substantial differences in exported products	0.114	0.373	-0.078	0.717	-0.055
8. Difficulty in managing foreign distribution channels	0.193	0.133	0.230	0.704	0.163
7. Stiff price competition in foreign market	0.239	-0.313	.250	0.654	0.043
9. Low profitability of exported products	-0.072	0.172	-0.017	0.143	0.813
10. Excessive costs of logistics	0.240	0.044	0.231	-0.037	0.757
11. High cost of imported raw materials	0.443	0.154	0.019	0.125	0.591
5. Difficulty in developing new products for foreign markets	0.057	0.167	0.334	0.437	0.355
12. Difficulty of adapting promotion activities to the foreign markets	0.220	0.381	0.190	0.366	0.162
Eigen Values	6.02	1.44	1.28	1.19	1.09
Variance explained (61.2%)	13.9	12.9	12.3	11.4	10.7

referred to perceived strategic limitation. Cronbach alpha for this factor is 0.76.

The fourth factor deals with existence of substantial differences in exported products, stiff price competition in foreign market, and difficulty in managing foreign distribution channels, and therefore can be viewed as contextual differences. The cronbach alpha for this factor is 0.63 reflecting an adequate level of reliability.

The fifth factor includes low profitability of exported products, excessive costs of logistics, and high cost of imported raw materials. This factor will be referred to export cost and profitability. Cronbach alpha for this factor is 0.65. The five factors emerged from this analysis. The summated scores for the items of each factor will be used for further analysis.

For the five factors of the export barriers, the cell and marginal means were calculated. Table 5 presents the cell mean and marginal mean values for each of the dimensions of the export barriers. The overall sample means range from 3.41 to 3.78 for the five export barrier factors. The marginal mean values for the high export experience firms tend to be lower than those of the lower export experience firms. Similarly, the marginal mean values for the high export commitment firms tend to be lower than those of the low export commitment firms.

#### **Multivariate analysis of variance (MANOVA) results**

Because our study involves multiple factors of the

dependent variable, MANOVA is employed as the first stage in the analysis of the results. The MANOVA results (Table 6) show significant export experience (EE) main effect at the .05 level. The export commitment (EC) main effect is significant at the 0.10 level. The two-way interaction effect between EE by EC is not significant at the 0.10 level. The Wilks' lambda for the EE main effect is 0.938 with F value of 2.74. The Wilks' lambda for the EC main effect is 0.953 with F value of 2.03.

To determine which factors are responsible for the statistically significant MANOVA main effects, univariate tests were performed for each of the five individual factors: government policy, procedural and technical complexity, perceived strategic limitation, contextual differences, and export cost and profitability.

For the government policy factor, the EC main effect is significant at the .05 level. However, the EE main effect and two-way interaction effect are not significant at the 0.10 level. The marginal mean values presented in Table 5 show that firms with high export experience reported a much lower perceived barrier score of 3.57 when compared to the score of 3.85 of the low export experience firms. For the procedural and technical complexity factor, the EE and EC main effects are significant, while the two-way interaction effect is not significant at the 0.10 level. The high EE firms (3.23) reported a much lower barrier score than the low EE firms (3.52). Similarly, the high EC firms (3.28) reported a much lower barrier score than the low EC firms (3.55). For the perceived strategic limitation and contextual

**Table 5.** Cell means and marginal means.

<b>F1 (Government policy)</b>			
<b>Export experience</b>	<b>Export commitment</b>		<b>Total</b>
	<b>Low</b>	<b>High</b>	
Low	3.49	3.82	3.63
High	3.63	3.86	3.76
Total	3.57	3.85	3.71
<b>F2 (Procedural and technical complexity)</b>			
Export experience			
Low	3.10	3.44	3.23
High	3.43	3.59	3.52
Total	3.28	3.55	3.41
<b>F3 (Perceived strategic limitation)</b>			
Export experience			
Low	3.56	3.77	3.65
High	3.81	3.88	3.85
Total	3.70	3.85	3.77
<b>F4 (Contextual differences)</b>			
Export experience			
Low	3.54	3.85	3.66
High	3.56	3.59	3.58
Total	3.55	3.67	3.61
<b>F5 (Export cost and profitability)</b>			
Export experience			
Low	3.61	3.57	3.60
High	3.90	3.87	3.88
Total	3.77	3.78	3.78

Note: Low export experience group (n=78); High export experience group (n=136). Low export commitment group (n = 108); High export commitment group (n = 106).

differences factors, the EE and EC main effects and the two-way interaction effect are not significant at the 0.10 level. For the export cost and profitability factor, the EE main effect is significant at the 0.05 level. The high EE firms (3.60) revealed a much lower barrier score than the low EE firms (3.88). However, the EC main effect and the two-way interaction effect are not significant at the 0.10 level. The significant EE main effects on the procedural and technical complexity and export cost and profitability factors provide partial support for the hypothesis 1. The EC main effects show significant effects on the government policy and procedural and technical complexity factors. These results provide partial support for the hypothesis 2.

## DISCUSSION

This study evaluated the impacts of the export experience

and commitment on the perception of the export barriers. It is hypothesized that firms with high export experience will perceive lower export barriers than those with low export experience. It is also hypothesized that firms with high export commitment will perceive lower export barriers than those with low export commitment.

Firms with high export experience show a much lower level of perceived procedural and technical complexity barrier. The results suggest that firm's export experience can reduce the procedural and technical complexity barrier involved in exporting. In addition, firms with high export experience also reported a much lower level of perceived export cost and profitability barrier than those with low export experience. This result is consistent with the previous findings which show that export barriers are mostly caused by inadequate exchange of information between purchaser and supplier leading to extra financial budget to get fundamental information about export markets and first contact point (Kneller et al., 2008).

Through export experience, firms can learn where they can reduce export related costs and achieve profitability with exporting. The results of this study imply that government promotion programs should concentrate on the procedural and technical complexity and export cost and profitability barriers. For example, knowledge based programs designed to reduce concerns about procedural and technical complexity may be developed to promote exporting. It is important to help firms overcome the procedural and technical complexity because procedural barriers and competition in the export markets have the most significant impacts on export performance (Altintas et al., 2007).

In addition, by capturing the know-how of the experienced exporters, government programs can educate less experienced exporters regarding the export cost reduction and profitability enhancement approaches.

The findings show that firms with high export commitment perceive a much lower level of the government policy and procedural and technical complexity barriers than those with low export commitment. The results suggest that firms with strong export commitment such as export department can better overcome government and export policy changes as well as the procedural and technical complexity in exporting.

Interestingly, neither export experience nor export commitment can help firms overcome the perceived strategic limitations and contextual differences in exporting. Therefore, it is important for government program administrators to be aware of strategic limitations and contextual differences, and when possible to find ways to help firms overcome these two barriers.

Future research should validate the findings of this study using data from other Middle East regions and less developed economy. While this study evaluates formal export barriers, future research needs to assess the nature and degree of impacts of informal export barriers like transport costs, cumbersome custom practices, costly regulations and bribes in less developed economy (Guido, 2005).

In addition, future research should investigate possible intervening factors, such as marketing capability, that may affect the perceived level of export barriers. While this study followed the tradition of previous research, a more comprehensive theoretical model needs to be developed to fully understand the complex process of exporting and export-related marketing problems (Pinho and Martin, 2010).

## Conclusion

In line with previous studies, this article was motivated by a desire to gain a better understanding of the perceptions of exporters on a number of export barriers. This is an important issue since the way these barriers are perceived by exporters often determines a firm's success

in international business activities. Thus, some important conclusions can be drawn from the analysis.

The study's identification of five different factors of export barriers delineates the importance to tackling these differing barriers. The five factors are labeled as follows: government policy, perceived procedural and technical complexity, perceived strategic limitation, contextual differences, and export cost and profitability. This may require complimenting actions to alleviate these barriers since not all are emanating from within the exporting venture. For example, government promotion programs should tackle the procedural and technical complexity and export cost and profitability barriers.

The study findings also point to tangible outcomes for exporters. Exporting should be treated as a dynamic and not as a static inflexible procedure, mainly because the firm and government's context and activities are continually changing through exports. This is elucidated by the fact that firms with high export experience and high commitment levels were found to reduce the level of perceived export barriers. Therefore, barriers reduction policies and procedures should take into consideration the venture's export experience and commitment; this is true for both firm-level and government-level actions.

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