An Evaluation of State Sponsored Promotion Programs

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In this analysis, we test hypotheses concerning the effectiveness of government export promotion programs on firm export success by examining the relationships between program offerings and state exports. We find that: (1) trade shows are positively related to direct exports, (2) trade missions are negatively associated with high-tech growth exports, (3) foreign offices are not associated with exports, and (4) objective market information programs, such as computer-generated trade leads, are negatively associated with direct exports. Implications for business are offered as are directions for future research efforts.


Can firms increase international sales by utilizing specific state government export promotion programs? Previous research indicates that certain state programs appear to help firms become successful exporters (Cavusgil and Naor, 1987; Coughlin and Cartwright, 1987; Pointon, 1978; Seringhaus and Rosson, 1989, 1991). For example, trade shows are viewed positively by firms with little previous involvement in exporting because they help firms rapidly acquire information about potential markets (Olson, 1975; Reid, 1984; Denis and Depelteau, 1985). Other programs, however, such as trade lead matching of the identification of foreign agents, are viewed with skepticism and are considered to be of little practical value (Walters, 1983; Lesch, Eshghi, and Eshghi, 1990; Kedia and Chhakar, 1986).

Previous studies by Seringhaus and Rosson (1989) and Seringhaus and Rosson (1991) have empirically demonstrated a link between certain export promotion activities and firm objectives. However, no previous study has ever attempted to empirically demonstrate a systematic relationship between various programs offered by state government export promotion organizations (EPOs) and export success. The purpose of this article is to build on previous efforts to see if a systematic relationship exists between specific export promotion programs offered by state governments and actual levels of state exports.

Building on the work of Seringhaus (1987), Seringhaus and Rosson (1989, 1991), Kotabe and Czinkota (1992), and others concerning EPO program effectiveness, we developed hypotheses pertaining to four specific EPO activities, trade shows, trade missions, foreign offices, and objective market information activities: (1) trade shows will be positively related to state exports; (2) trade missions will be positively related to state exports; (3) foreign offices will not be positively related to state exports; and (4) objective market information programs, such as computer-generated trade leads, will not be associated with higher levels of state exports. We use regression analysis to test each of our four hypotheses for both direct exports and high-tech growth exports.

The article proceeds as follows. First, the need for export promotion programs is discussed. Second, hypotheses are developed regarding the effectiveness of EPO programs based on previous literature. Third, the methods used in the study are described, and the empirical results are presented. The implications of the findings for firms then are discussed. Finally, the limitations of the study and future research directions are explored.

Why Export Promotion?

Exporting firms are more likely to stay in business than are nonexporting firms, pay 13–18% above average, achieve 20% faster employment growth, and exhibit greater productivity than companies that are not marketing their products overseas (Daley, 1997, p. 7). Despite these potential benefits, relatively few companies are involved in export markets. In 1992, the last year in which figures were available, out of 690,000 manu-
facturing firms only 6% were involved in exporting (Daley, 1997, p. 7). Why might this be the case?

Because of the complexity of the international business environment and the comparative scarcity of resources, several studies note that small- and medium-sized firms are at a disadvantage if they decide to compete internationally (Seringhaus and Botschen, 1991; Seringhaus, 1986, 1987; Ramaswami and Yang, 1990). The uncertainties of the exporting enterprise, ignorance about foreign markets, and the daunting nature of exporting process all militate against such firms becoming committed exporters (Goodnow and Hansz, 1972; Weinrauch and Rao, 1974; Bilkey and Tesar, 1977; Czinkota and Johnson, 1983; Kaynak and Kothari, 1984; Rabino, 1980; Reid, 1984; Seringhaus and Rosson, 1989). The difficulties that smaller firms encounter when they become involved in exporting have been characterized by Seringhaus and Rosson (1989) as “barriers” or “inhibitors.”

Seringhaus and Rosson (1991, p. 55) suggest that state EPOs can aid smaller firms in overcoming export barriers as they enter and expand into foreign markets. Dominguez and Cirigliano (1997, p. 35) argue that such assistance is vital because “export-oriented policies have proven superior to inward-oriented policies in delivering both long-term economic growth and quality of life indicators.”

State export promotion programs attempt to address the problem of export barriers by offering a wide variety of activities designed to help exporters and potential exporters become involved in international marketing. In the 1980s, state governments began to increase and expand their involvement in export promotion (Kotabe, 1993). By 1994, the states operated 162 overseas offices in 25 countries and spent an average of $1,676,702 for the purpose of promoting state exports (NASDAQ, 1994, p. 120).

### Previous Studies on Export Promotion

A large body of literature has examined the effectiveness of export promotion programs. Seringhaus (1986) in a review of 21 empirical studies found that most of the research that has been done measures the attitude or perception of managers toward government programs. The measures used in these studies usually consist of qualitative responses, producing ordinal or nominal scale values rather than quantitative responses, such as the number of orders or export sales (Seringhaus, 1986, p. 59). The author concluded that, based on previous studies, it was not possible to determine whether or not promotional programs actually have any impact on exporting firms (Seringhaus, 1986, p. 62).

Despite the ambiguity in much of the literature, several studies have attempted to find an association between EPO activities and export performance; none has used actual exports as a dependent variable. For example, Cavusgil and Naor (1987) conducted an empirical study of 310 firms that attempted to link a firm’s export status (exporting or non-exporting) to 25 firm and management characteristics. Among the top nine variables linked to export status are “whether or not firms seek information from executives in other companies, state agencies, and the U.S. Department of Commerce” (Cavusgil and Naor, 1987, p. 229). Of these, state agency information ranks third, and seeking help from the U.S. Department of Commerce ranks seventh. An important limitation of this study is that specific EPO programs are not examined.

It would be wrong to assume that the absence of studies on the effectiveness of specific export promotion activities means that the states have been inactive in this area. Over the past two decades, a wide variety of export promotion strategies have been used. The activities explored in this article are described below.

### Trade Shows/Fairs

Trade shows take place at a fixed location overseas. Fairs consist of multiple booths in a convention hall in which firms exhibit their products anywhere from two days to two weeks (Tanner, 1995). Trade shows provide ready-to-export firms potential customers and contracts (Seringhaus and Rosson, 1989), and are, as a consequence, viewed favorably by managers (Ramaswami and Yang, 1990, p. 202). Fairs allow potential exporters to (1) sell products; (2) gain access to decision makers; (3) disseminate facts about services, products, and personnel; (4) identify prospects; (5) maintain image in the industry and with the media; (6) gather intelligence; and (7) enhance and maintain firm morale (Bonoma, 1983).

Trade shows tend to be viewed positively, especially by those firms that already are prepared to export (Reid, 1984; Denis and Depelteau, 1985). Seringhaus and Rosson (1989, p. 235) found that, given similar levels of effort, participants in trade shows were more effective in terms of sales than were trade mission participants. In a subsequent study of 367 firms that exhibited at 48 international trade fairs between 1984 and 1986, Seringhaus and Rosson (1991) found that only 18% of the firms were able to break even, whereas one exporter had $30 million in sales. Thus, trade shows, despite great individual firm variability, are expected to have an overall positive impact on aggregate levels of state exports. This leads to our first hypothesis:

**H1A**: Trade shows are positively associated with state exports.

### Trade Missions

Trade missions are considered to be most appropriate for non- and new exporters. They function as an on site tutorial, providing a learning experience which allows firms to acquire information and expand their knowledge of the exporting process (Seringhaus, 1987, p. 57). Trade missions allow potential exporters to learn (1) how business is conducted overseas, (2) what services and products are available, (3) the receptivity of potential buyers, (4) the extent of the commit-
ment and resources necessary to sell in overseas markets, and (5) the answers to questions about foreign markets and the process of exporting (Seringhaus and Rosson, 1989, p. 176).

In an examination of the actual impact of trade missions on firm objectives, Seringhaus and Rosson (1989) analyze export performance of 462 firms between 1984 and 1987. The authors note that while sales are the ultimate goal of promotional activities, other objectives also may be satisfied. They found that trade missions were somewhat more effective on average than trade fairs in fulfilling firm objectives. Of the 10 objectives examined, trade missions were more effective in introducing new products to the market; maintaining a market presence; meeting customers, agents, representatives, and distributors; and in making business contacts. For the remaining objectives, the authors found no significant differences between trade missions and trade shows. The authors found that trade mission participants “generated 2.7 times the sales of fair participants—an average of $756,000 versus $279,000, but that trade fairs generated more overall business due to the larger number of participants” (Seringhaus and Rosson, 1989, p. 230). Thus, trade missions like trade shows appear to be positively related to export growth. This leads to our second hypothesis:

H2: Trade missions are positively associated with state exports.

Trade Shows/Missions and High-tech Exports

There is some reason to suspect that trade shows and trade missions will work particularly well with high-tech growth exports. A study of 354 small- and medium-sized exporters located in Florida, found that firm size, choice of market, and product mix were interrelated in affecting the ability of firms to export their products (Mahone, 1994). The author states that “depending upon product mix, opportunities do exist for small- and medium-sized firms in export markets. However these appear greater for firms which produce medium- and high-tech products” (Mahone, 1994, p. 145). Small- to medium-sized manufacturing firms are the targets of state export promotion efforts. Therefore, it may be that the trade shows and trade missions will be more effective when they are focused on high-tech growth exports of small firms.

H1B: Trade shows are positively associated with high-tech growth exports.

H2B: Trade missions are positively associated with high-tech growth exports.

Objective Market Information Activities

In contrast to trade missions and trade shows, objective knowledge-based activities, such as trade lead matching programs, are not viewed as being particularly effective (Simpson and Kujawa, 1974; Walters, 1983). This is because firms (1) are not provided with appropriate information (Lesch, Eshghi, and Eshghi, 1990); (2) have trouble evaluating available information (Walters, 1983, p. 42); (3) are unable or unwilling to use the information obtained from these programs (Kedia and Chhakar, 1986); (4) are uninterested in these types of activities; and (5) prefer other sources of information (Reid, 1984). Thus, for all the above reasons, it appears that objective knowledge based activities, such as trade lead matching programs, are ineffective and therefore are unlikely to be positively related to export growth.

Foreign Offices

One of the most extensive export promotion activities of state governments is the maintenance of overseas offices. These offices serve as outposts, establishing contacts and providing a continual flow of information for their home states. Although the number of overseas offices declined from a high of 163 in 1990, a total of 137 outposts in foreign countries were operating in 1994 (NASDA, 1994, p. 13). Seventy-four of these offices are located in the Pacific Rim with approximately half that number operating in Europe. Thus, the pattern of trade offices in many respects follows the world pattern of trade, with the overwhelming majority of trade offices located in either developed nations or in the newly industrialized nations of the Pacific Rim.

Few studies on the effectiveness of foreign offices have been undertaken. A study by Martin (1996) found no relationship between exports and the existence of subnational foreign offices in Japan. Instead, the author found that passive forms of international contact, such as sister city arrangements, were more closely associated with exports. Similarly, a study by Kotabe (1993) examining the effect of foreign offices on incoming foreign direct investment found no association between overseas offices and FDI.

Having established, from the literature, a basis on which to predict which EPO activities will be effective, the methodology used in the current study is explained.

Data and Methods

The data for the dependent variables used in this study are drawn from the report, *Exports from Manufacturing Establishments, 1999 and 2001* published by the Department of Commerce. This survey, the most recent of its type, is used because its data is more reliable than the other major survey produced by the Department of Commerce (the *Summary of U.S. Export and Import Merchandise Trade*). *Exports from Manufacturing Establishments, 1990 and 1991* includes “estimates of the value of exports and export-related employment, both for directly exported goods and for the indirect requirements supporting manufactured exports” (U.S. Department of Commerce, 1994,
3). Because EPOs generally limited their focus to manufacturing enterprises, the models tested here do not examine services or agricultural products or services.

The first dependent variable, direct exports, consists of the value of goods that have been shipped overseas. Estimates are provided by manufacturers on a state-by-state basis at the two- and three-digit SIC code level. The data are based on estimates of manufactured goods obtained using a probability sample of 55,000 manufacturing establishments (U.S. Department Of Commerce, 1994, p. A-1). This survey also was used to construct the second dependent variable, high-tech growth exports.

Information regarding the independent variables comes from the State Export Promotion Data Base (NASDA, 1990). The data were collected through an extensive survey distributed to EPOs in all 50 states in 1990. The following statement, which is the only information provided regarding how the survey was conducted, appears under the section of the survey entitled methodology:

NASDA surveyed the 50 United States and two territories (the U.S. Virgin Islands and Puerto Rico, both members of NASDA) in July 1990 on many aspects of their trade development programs. Responses were collected between July and December 1990. The results of that survey are the basis for the NASA 1990 State Export Program Database. (NASDA, 1990)

NASDA received a 100% response, presumably because it is a high profile agency that works with EPOs on an ongoing basis. The data gathered cover almost all aspects of export promotion activities. The independent variables consist of the number of trade missions, trade shows, foreign offices, objective market information activities and state population. Details concerning the independent and dependent measures are enumerated in Appendix A.

Method of Analysis

Pooling data into multiple year averages provides more reliable and valid measures and helps to stabilize the effects of single-year variations and variance in the overall sample (Gomez-Mejia, Tosi, and Hinkin, 1987; Zajac, 1990). Two-year averages of all exports as measured in dollars are used. Although a four-or-five-year average would be preferable, this will not be possible because in 1990, “the Census Bureau began using its own concordance to allocate the Harmonized System Schedule B export commodity codes to a Standard Industrial Classification commodity basis” (U.S. Department Of Commerce, 1994, p. 8). Therefore, the validity of using prior surveys in this manner is questionable.

Findings

Table 1 reports the means, standard deviations, and correlations of all of the variables in the regression equations. It shows that with the exception of population and trade shows, there is no evidence of multicollinearity problems between the independent variables. Trade show and population has a comparatively high correlation coefficient of 0.75. However, collinearity diagnostics reveals a variance inflation factor (VIF) of 2.87 for trade shows and 2.53 for population. Studenmund states, “a common rule of thumb is that if VIF(β) > 5, the multicollinearity is severe” (Studenmund, 1992, p. 275). Both of these are well below this number.

Table 2 displays the unstandardized coefficients, standard errors, and significance of the two regression models in which direct exports (model 1) and high-tech growth exports (model 2; both measured in dollars) are the dependent variables, and the four export promotion activities (trade shows, trade missions, foreign offices, and number of objective market information activities) and state population are the independent variables. Relatively high goodness-of-fit statistics for the export models suggests that population is a good proxy for the economic activity and export capacity of the states.

Export Promotion Activities and Direct Exports

In the regression equation for model 1, trade shows (t = 1.89, p ≤ 0.05), objective market information activities (t = 1.83, p ≤ 0.05), and population (t = 7.50, p ≤ 0.05) are significant, whereas trade missions (t = 1.36) and foreign offices (t = 0.19) are not statistically significant. The last of these is consistent with the prediction that foreign offices would not be positively associated with state exports.

An unstandardized coefficient of 308.78 indicates that each trade show is associated with an average increase of $308,780,000 in direct exports. Or, given the limitations of cross-sectional analysis, it is more precise to say that $308,780,000 in direct exports is the difference in direct exports per unit increase in trade shows (McClenon, 1994, p. 40). In addition, with a beta of 0.20, trade shows account for more variation in direct exports across states for the years under consideration than do any of the other program variables. These findings support our first hypothesis, which states that trade shows are positively associated with state exports. In
Table 1. Correlation Matrix of Exports and Independent Variables

<table>
<thead>
<tr>
<th></th>
<th>Direct Exports</th>
<th>Trade Shows</th>
<th>Trade Missions</th>
<th>Foreign Offices</th>
<th>Market Information Activities</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>6284.12</td>
<td>6.23</td>
<td>2.60</td>
<td>3.25</td>
<td>6.38</td>
<td>5134.25</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>7470.77</td>
<td>5.06</td>
<td>2.20</td>
<td>2.46</td>
<td>2.13</td>
<td>5506.11</td>
</tr>
<tr>
<td>Direct exports</td>
<td>1.00</td>
<td>0.71</td>
<td>0.20</td>
<td>0.40</td>
<td>0.07</td>
<td>0.88</td>
</tr>
<tr>
<td>Trade shows</td>
<td>0.72</td>
<td>1.00</td>
<td>0.35</td>
<td>0.47</td>
<td>0.25</td>
<td>0.75</td>
</tr>
<tr>
<td>Trade missions</td>
<td>0.02</td>
<td>0.35</td>
<td>1.00</td>
<td>0.11</td>
<td>0.34</td>
<td>0.12</td>
</tr>
<tr>
<td>Foreign offices</td>
<td>0.40</td>
<td>0.47</td>
<td>0.11</td>
<td>1.00</td>
<td>0.35</td>
<td>0.46</td>
</tr>
<tr>
<td>Market information activities</td>
<td>0.08</td>
<td>0.25</td>
<td>0.34</td>
<td>0.35</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Population</td>
<td>0.88</td>
<td>0.75</td>
<td>0.12</td>
<td>0.46</td>
<td>0.26</td>
<td>1.00</td>
</tr>
</tbody>
</table>

* \( p < 0.05 \), two-tailed test.
* \( p > 0.05 \), \( p < 0.10 \), two-tailed test.

Contrast, the second hypothesis, *trade missions are positively associated with state exports*, is not supported \( (t = -1.36) \).

An unstandardized coefficient of -479.14 for objective market information activities indicates that $479,140,000 in direct exports is the difference in direct exports per unit decrease in objective market information activities. The beta for this variable, at -0.14, is smaller than the standardized coefficient for trade shows. This finding is consistent with the prediction that objective market information activities would not be positively associated with state exports.

Export Promotion Activities and High-Tech Exports

In the regression equation for model 2, high-tech growth exports, trade shows \( (t = 2.84, p < 0.05) \), trade missions \( (t = -2.76, p < 0.05) \), and population \( (t = 7.47, p < 0.05) \) are statistically significant. Objective market information activities \( (t = 0.29) \) and foreign offices \( (t = 0.23) \) are not statistically significant. An unstandardized coefficient of 189.00 indicates that each trade show is associated with an average of $189,000,000 in high-tech growth exports. A standardized regression coefficient of 0.30 indicates that the relationship between these two variables is stronger than any of the other program variables. This confirms hypothesis 1B, *trade shows are positively associated with high-tech growth exports*. For the trade mission variable, $306,850,000 in high-tech growth exports is the difference in growth exports per unit decrease in trade missions. The beta is -0.21. The findings do not support hypothesis H2B, which states, *trade missions are positively associated with high-tech growth exports*.

Discussion and Implications

We began this article by hypothesizing empirical linkages between various programs offered by state government export promotion organizations and actual levels of state exports. Based on the previous literature on EPO program effectiveness, we developed hypotheses concerning four specific EPO activities, trade shows, trade missions, foreign offices, and objective

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1 Direct Exports</th>
<th>Model 2 High-Tech Growth Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unstandardized regressions coefficients (standard error)</td>
<td>Unstandardized regressions coefficients (standard error)</td>
</tr>
<tr>
<td>Shows</td>
<td>308.78* (163.00)</td>
<td>189.00* (66.45)</td>
</tr>
<tr>
<td>Missions</td>
<td>-353.12* (260.00)</td>
<td>-306.49* (110.73)</td>
</tr>
<tr>
<td>Foreign offices</td>
<td>-28.21 (238.38)</td>
<td>-119.20 (99.63)</td>
</tr>
<tr>
<td>Objective market information activities</td>
<td>-479.14* (261.48)</td>
<td>30.71 (106.19)</td>
</tr>
<tr>
<td>Population</td>
<td>1.06* (0.14)</td>
<td>0.21* (0.06)</td>
</tr>
<tr>
<td>R²</td>
<td>3003.60 (1561.94)</td>
<td>-819.99 (646.42)</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.82</td>
<td>0.86</td>
</tr>
<tr>
<td>F</td>
<td>79.79</td>
<td>84.84</td>
</tr>
<tr>
<td>N</td>
<td>47</td>
<td>41</td>
</tr>
</tbody>
</table>

* \( p < 0.05 \), one-tailed test.
* \( p > 0.05 \), \( p < 0.10 \), one-tailed test.
market information activities: (1) trade shows will be positively related to state exports; (2) trade missions will be positively related to state exports; (3) foreign offices will not be positively related to state exports; and (4) objective information programs, such as computer-generated trade leads, will not be associated with higher levels of state exports. We used regression analysis to test each of our hypotheses for both direct exports and high-tech growth exports.

We found that trade shows were positively associated with direct exports and high-tech growth exports. In contrast, objective market information activities were negatively related to direct exports and trade missions were negatively associated with high-tech growth exports. In particular, our results concerning trade missions appears to contradict hypothesis 2, which was based on an earlier finding of Seringhaus and Rosson (1989). They found a positive relationship between firms going on trade missions and increases in the firm's exports. We suggest that this apparent contradiction can be reconciled as follows. Although Seringhaus and Rosson (1989) found a positive relationship between trade missions and exports on a per firm basis, they also found that trade shows yielded substantially higher levels of total exports than trade missions due to the much larger number of firms that participate. We suggest that since our study deals with aggregate levels of exports our results reflect the relatively greater effectiveness of trade shows at the aggregate level.

Does this mean that state investments in trade missions and/or objective market information activities actually reduce state export levels? When attempting to understand what the negative relationships between trade missions, objective market information activities and exports actually mean it is important to remember that our cross-sectional analysis measured variation across states rather than a casual relationship measured over time. Thus, it would be incorrect to conclude, for example, that each trade mission undertaken results in a loss of $306,490,000 in high-tech growth exports. What it actually means is that states that had more trade missions had lower levels of exports than states that had more trade missions. Why might this be the case? One possibility is that state governments are constrained by resource limitations. funds must be allocated among various EPO programs. Investing in a trade mission may not mean not investing in a trade show, etc. Since our findings appear to indicate that trade shows yield the best results, any diversion of state funds away from trade shows may lead to suboptimal levels of state exports. Thus, the negative associations between exports and trade missions and objective market information activities may be interpreted as opportunity costs.

Our findings have two specific implications for firms. The first, related to the statements above, suggests that trade missions may not be a productive activity for many businesses. Earlier literature suggests that trade missions are the most appropriate activity for firms in the early stages of exporting (Seringhaus, 1987; Seringhaus and Rosson, 1989) and that they are viewed positively by exporters and potential exporters (Katcher, 1975; Cavusgil, 1983; Seringhaus, 1987; Elvey, 1990). The negative relationship between trade missions and exports found in this study indicate that whereas this may be the case in an ideal or theoretical sense, in practice, trade missions are being used for different purposes. Kotabe (1993) suggests that trade missions are not used to increase exports, but rather are used by government officials to encourage foreign business to relocate to their states. Future research could examine the association between state sponsored trade missions and foreign direct investment.

Second, the positive relationship between trade shows and exports suggests that participation in trade shows can be a useful and profitable activity for firms. Businesses, particularly those just becoming involved in international markets, can benefit not only from knowledge gained through hands on experience but from actually selling their products. In general, the findings suggest that domestic firms should attempt to persuade state governments to increase the number of trade shows that they undertake.

Limitations and Future Research Directions

There are a number of empirical limitations to this study. First, the study is a test of the aggregate effects of state governments’ EPO strategies on exports. As such it suffers from the usual shortcomings of aggregate tests and secondary data analysis. Future research efforts might focus more directly on the differing motives and behaviors of individual firms with respect to program offerings and the impacts of those on the specific firm’s exporting efforts. Second, because our study is cross-sectioned, the longitudinal effects of these programs remain unexplored. It may turn out that our predictions do not hold over the long run. Third, although we note an association at the industry level between selected EPO activities and high-tech industries, future efforts may wish to focus (1) on firms rather than on industries and (2) on a wide range of industries.

Exporting can be a profitable way for firms to expand their markets. State-based export promotion offices exist to help firms in this effort. By using EPOs to create or expand international sales, firms can externalize some of their global marketing efforts at very little cost. Particularly for small- and medium-sized resource-constrained companies that wish to expand overseas, the information and services that EPOs provide can be valuable. The challenge for future research is to determine under what conditions EPO programs provide the greatest benefits to firms seeking to expand their exporting efforts.

Appendix A

Dependent Variables

Two categories of dependent variables were tested in this article—direct exports and high-tech growth exports. Both are measured in dollar terms.
Direct exports includes only the value of manufactured products exported by producing plants.

High-tech growth exports are based on a classification scheme developed by Markusen, Hall, and Glasmeyer (1986). High-tech growth exports includes rapid and modest growth sectors. These are (Rapid) electronic components and assembly, office computing machines, communications equipment, and medical and dental supplies; (Modest) photographic equipment, drugs, construction equipment, soap, general industrial machinery, industrial organic chemicals, and engines and turbines.

Independent Variables
Trade shows consist of multiple booths in a convention hall in which firms exhibit their products anywhere for up to two weeks (Tanner, 1995).

Trade missions are led by high-level EPO officials who arrange meetings between buyers and sellers at overseas locations (Jaramillo, 1992, p. 31). They allow participants to gain first-hand knowledge of the potential market as well as an opportunity to assess the commitment and resources that are necessary to be successful in a particular market.

Objective Market Information Activities consist of the following dummy variables (yes = 1; no = 0): trade lead program + matchmaker program + foreign buyers program + identify agents and distributors + publish product descriptions abroad + market studies prepared by state staffs + market studies by overseas office staff + market studies outsourced + electronic trade lead system + market studies/research done by industry sector.

State population, the final independent variable, is included as a proxy for the economic variation that exists between states.

References


Tanner, Jeff: *Curriculum Guide to Trade Show Marketing* Waco, TX: Center for Exhibition Industry Research, Baylor University, 1995.

