**Government Incentives and Export Performance Relation: A Meta-Analytic Review**

Devlet Teşvikleri ve İhracat Performansı İlişkisi: Bir Meta-Analiz Çalışması

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**Introduction and Purpose of the Research**

The ultimate goal of all foreign trade policies has been to achieve trade surpluses by increasing exports and reducing imports levels, which might be possible with the firms gradually accelerating their export amounts. Hence governments offer a range of incentive programs to encourage their domestic firms to increase export sales. The direct impacts of these incentives on export performances have been analyzed on numerous studies in the literature. Researchers in many different countries tested this relation many times with more or less the same settings. Therefore, the aim of this paper is to find the strength and dimension of this relationship. The methodology of this research, 'Meta-analysis' is defined as combining the results of multiple studies and conducting statistical analysis of the research findings (Akgöz et al., 2004). With this paper, it is aimed to combine the practices of several studies to improve the efficiency of scientific work—e.g. not to search for the already found relations in literature- and contribute to the international marketing theory progress. The meta-analysis approach has started to involve in social science researches recently and is becoming more common. This research is based on a meta-analysis of the studies investigating the impacts of export incentives offered by state, on the export performances of these companies in Turkey. It has been aimed to reach more common and actual results by synthesizing diversified amount of incentives and firm performance data. It is one of the early and pioneering meta-analytic research on the export performance and incentives relationship in International Marketing literature.

**Literature Review (Conceptual/Theoretical Framework)**

The most frequently used entry method for Turkish companies can be identified as exports. Especially Turkish SMEs which realizes the 55.4 % (2018) and 36.6 % (2020) of the exports of Turkey (Turk Stat, 2019; NTV, 2020), could initially take part in global trade via exporting. While giving the export decision, companies face with both lots of external-additional expenses, procedures, efforts, risks and possibly high profits Influencing factors to export performance has been investigated in a high number of empirical studies (Beleska-Spasova, 2014; Evangelista, 1994; Katsikeas et al., 1996; Sousa, 2004). Reaching the business targets after products exported to international markets is called export performance (Cavusgil & Zou, 1994: 4). Cavusgil and Zou define the term as a measurement standard for the firm’s international business strategies and goals to reach. Shoham (1996) said it is the consequences of localized and adjusted foreign marketing policies.

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Main question to be asked for every business performing in global market should be, "which factors influence and increase the company export performance?" (Hosseini et al.; 2011) (Gilaninia et al.; 2013: 28). Katsikeas et al. (2000: 496), presented the affecting factors in three groups and with a basic model. Background variables, consisting of managerial, organizational and environmental factors which have indirect impacts on export performance, intervening variables, namely targeting and marketing strategy factors directly affecting performance and lastly outcome variable as the results section. Export performance model is widely used by Turkish researchers (e.g. Yaman, 2016; Yücel & Kara, 2014; Altuntaş et al., 2015).

In terms of businesses, success is evaluated due to economic and noneconomic objectives and achievements gained globally at a certain period. Cavusgil & Zou (1994), indicated four aspects of an export performance theory: a) The extent to which the beginning management objectives were achieved, b) Annual export sales growth for five years time, c) Total profitability of exporting over five years, d) Management's idea of success. The aggregate evidence emphasizes the most used financial indicators as measures of export performance are: a) Sales-related indicators such as; export sales ratio (e.g. Czinkota & Johnston, 1983; Cavusgil, 1984; Madsen, 1989), export sales growth (e.g. Cooper & Kleinschmidt, 1985; Madsen, 1989), export sales volume (e.g. Axinn, 1988; McGuinness & Little, 1981). b) Profit-related indicators such as; export profitability, export profitability growth, export profit ratio and export profit margin (e.g. Bilkey, 1982; Madsen, 1989). c) Market share and generic related measures; export market share, export market share growth which are used rarely and only to describe the strategic results of exports. (e.g. Sökmen, 2006; Dhanaraj & Beamish, 2003).

Export Incentives in Turkey can be summarized as: New Market Search and Entry Support, Supporting the Development of International Competitiveness, Incentives for Participation in Exhibitions and Trade Fairs, Design and Product Development Related Incentives, Overseas Branches, Branding and Promotion Incentives, Branding and Turquality Project Incentives, Investment Incentives, Exim Bank Export Credits. While many previous researches on Turkish companies demonstrates the positive relationship between export performance and government incentives (e.g. Tekin & Nas, 2017; Çakıt & Özerhan, 2018; Apan & İslamoğlu, 2017; Türko & Yellice, 2017; Kuşanaç, 2018; Akbaş, 2019; Sağlam, 2019; Parläkgül, 2016; Kırıcı, 2019; Astarlıoğlu, 2017), a significant amount of studies declare negative correlation instead (e.g. Maden et al., 2014; Akçelik, 2016; Taşpınar, 2017; Çetin & Gedik, 2017).

Design and Methodology

Despite decades of research about different types of incentives, their effects and export performance, no study to date has conducted a meta-analysis covering all studies done for Turkish companies. Meta-analysis is an effective technique to combine and consolidate the previous research to come up with an easier and summary understanding of the relations of variables and constructs. The results of this meta-analysis would let to comment on the national support policy. Accordingly to reach that aim, the following hypotheses are identified:

H1: There is a positive relationship between government incentives/supports and export financial performance.
H2: There is a positive relationship between government incentives/supports and export non-financial performance.
H3: There is a positive relationship between government incentives/supports and overall export performance.

Thesis and articles examined here cover the years between 2006 and 2019. Google Academic search engine and Dokuz Eylül University library search page have been used basically. Keywords search is performed using the engines of Ulakbim, Asos Index, Sobiad, Elsevier, Emerald and Wiley., YÖK Tez Tarama) tools. As a consequence, 76 studies have been found suitable for meta-analysis. At the last stage, based on the correlation coefficients and other values presented by these studies, we decided to include 22 of them into the study (n=22). The effects of incentives on export performance were evaluated in three categories; financial, nonfinancial and overall performance. (Katsikeas et al., 2000: 498).
Findings and Discussion

The correlations of the examined studies were analyzed and significant correlation coefficients selected were used (i.e. the r-family of effect sizes). Individual correlation coefficients in the studies were divided by the square root of reliabilities (Cronbach's Alpha) and corrected correlations were obtained (e.g. Hunter and Schmidt, 2004; Bıçakcıoğlu-Peynirci et al., 2019). When the reliability was not reported by an individual study, mean reliability was used (e.g. Bıçakcıoğlu-Peynirci et al., 2019; Kirca et al., 2005). The reliability-corrected correlations were converted into Fisher’s z-coefficients, which were averaged and then re-transformed to the correlation coefficients (e.g. Bıçakcıoğlu-Peynirci et al., 2019; Grinstein, 2008). In this study, Comprehensive Meta-Analysis (version 3) software program was used. Firstly, the overall relations between incentives and performance has been calculated. Meta-analysis results for hypotheses are given in table 1.

Table 1: Meta-analysis Results for Hypotheses

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Total Effect</th>
<th>Effect Size (Corrected r)</th>
<th>SE</th>
<th>95% Confidence Interval of r</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: incentives → export financial performance</td>
<td>0.554</td>
<td>35</td>
<td>0.446</td>
<td>0.053</td>
<td>0.324</td>
</tr>
<tr>
<td>H2: incentives → export nonfinancial performance</td>
<td>1</td>
<td>0.31</td>
<td>0.04</td>
<td>0.16</td>
<td>0.45</td>
</tr>
<tr>
<td>H3: incentives → overall export performance</td>
<td>0.497</td>
<td>50</td>
<td>0.408</td>
<td>0.039</td>
<td>0.31</td>
</tr>
</tbody>
</table>

Meta-analysis results demonstrate that there is a strong positive relationship between the incentives and the financial export performance of firms, providing full support for hypothesis 1 (r=0.446). Similarly, a strong positive relationship was found between incentives and firms' non-financial export performances. Thus, we found full support for hypothesis 2 (r=0.319). Analyzing 5316 company cases, 22 different studies and 50 correlations, we revealed a very strong link between general incentives and the firms' overall export performance. Hypothesis 3 was supported (r=0.408). Second phase of the analysis is conducted to show the effects of the incentive types on export performance.

Second phase of the analysis is conducted in order to provide more detailed information, the effects of the incentive types on export performance are shown in Table 8. Within this study one of our aim is to understand which incentives are more effective for Turkish companies. Providing this information for policy makers and officers will help to improve operations on these incentives and will improve the export operations effectiveness. The incentives used in the analysis have been transferred from the incentives data set included in the articles collected in the meta analysis. Companies included in the articles show a wide sectoral variety in Turkey, from almost all industries.

Table 2: The Effect of Incentive Types on Export Performance

<table>
<thead>
<tr>
<th>Incentive Type</th>
<th>Total Effect</th>
<th>Effect Size (Corrected r)</th>
<th>SE</th>
<th>95% Confidence Interval of r</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design and Product Development related</td>
<td>4</td>
<td>0.109</td>
<td>0.02</td>
<td>-</td>
<td>0.2</td>
</tr>
</tbody>
</table>
Table 2 gives us a precious information about the effects of various incentives. Except Design and product development incentives all of the supports have a strong impact on performance.

### Results

The aim of this study is to consolidate the latest data on the relationship between incentives and export performance in Turkish exporting companies. As a result, it has been found a strong positive relationship ($r=0.446$) between the incentives and the financial export performance of firms. Similarly, a strong positive relationship ($r=0.319$) was found between incentives and firms' non-financial export performances. Analyzing 5316 company cases, 22 different studies and 50 correlations, we revealed a very strong link ($r=0.408$) between general incentives and the firms' overall export performance.

It is concluded that the most effective incentive on the export performance of companies among the government incentives is Branding and Turquality Project Incentive ($r=0.705$). The importance of this incentive, which was created in order to make Turkish companies and brands competitive globally, is remarkable for companies. Especially in recent years, more companies want to benefit from this support and more empirical studies on this support have been performed in the literature. Similarly, Supporting the Development of International Competitiveness is another support that appears to have very strong effects on export performance of firms ($r=0.644$). In this study, it was also revealed that export loans are a very strong support to increase the export performance of the companies ($r=0.563$).

A further novel finding is that incentives for Participation in Exhibitions and Trade Fairs ($r=0.369$), New Market Search and Entry Support ($r=0.331$) and Investment Incentives supports ($r=0.311$) have strong effects to boost the export performance of companies. The study aimed to create a valuable resource for policy makers researchers, government officials and the businesses to benefit in export performance area. Future meta-analysis studies should further develop and confirm these initial findings by involving new research papers. This research findings provides a summary and a quite clear base of understanding to the relationship between Export Incentives and Export Performance in Turkey. Within the study it has been clearly shown that government incentives creates an important effect on this performance. There is still lots of research area for researchers to combine and analyze the accumulated knowledge on international trade of Turkey to show the path to successful export performance. The main recommendation of this research is; meta-analysis is one of the most efficient and effective analysis method in order to understand and combine fractioned pieces of knowledge. Especially in Turkish foreign trade literature meta-analysis can be repeated for various research areas to understand and improve export performance.
performance; as entrepreneurship, innovation, strategies, supply chain management, product design etc.