

The moderating role of firm age and size on the relationship between export assistance and performance

Abstract

Based on the Resources-Based View (RBV), Resource Orchestration (RO), and contingency theory framework, the study aims to investigate the individual and combinative effects of government and non-government export assistance on the performance of early internationalizing firms. The study incorporates a contingent approach and considers two characteristics of firms, i.e. age/experience and size as moderators. Data was collected from 705 apparel exporting firms in Bangladesh, a developing country in South Asia, and analyzed through hierarchical regression. The combinative impacts were measured as RO, specifically the resource bundling from government and non-government support. Both government and non-government export assistance have significant stand-alone impacts on export performance, whereas the resource bundling effects are much stronger. Although firm age plays no moderating role on the individual effects, it becomes significant when assistance from these different entities is integrated. Firm size is significant only for government support, which can be explained by the contextual features of export promotion programs and apparel exporting firms in the economy. Furthermore, the stronger resource bundling effects in experienced firms indicate greater capability of these firms in integrating resources from heterogeneous sources, along with the increasing knowledge and utilization of export assistance. Despite its cross-sectional research design and narrow scope, the study provides valuable academic insights by combining concepts from two streams of research: export assistance and International Entrepreneurship. It also has important practical implications for policy makers and managers.

Introduction

Extant literature analyzing the impacts of export assistance on export performance shows heterogeneous results. While some studies report a positive relationship (e.g. Durmuşoğlu et al. 2012; Gillespie and Riddle 2004; Sousa and Bradley 2009, etc.), others find non-significant or only weak relationships (e.g. Alvarez 2004; Donthu and Kim 1993; Marandu 1996; Geldres-Weiss and Carrasco-Roa 2016). This has initiated further research to examine the contingency relationship by adding a third variable in the analysis (e.g., Faroque and Takahashi 2015; Gençtürk and Kotabe 2001; Lu et al. 2010, etc.), and then, the indirect relationship mediated by a third or fourth variable (Faroque and Takahashi 2012; Francis and Collins-Dodd 2004; Haddoud et al. 2017; Shamsuddoha et al. 2009a, 2009b; Lages and Montgomery 2005, etc.). Our research falls into the last category of studies on contingent relationship between export support and firm performance. Integrating theoretical arguments based on the Resources-Based View (RBV) (e.g. Barney 1991; Barney 2001; Barney et al. 2001), Resource Orchestration (RO) (Sirmon et al. 2007; Sirmon et al. 2011), and contingency theory (Boyd et al. 2012; Hitt et al. 2004), we have explained and hypothesized this relationship. In International Entrepreneurship (IE) literature, early internationalizing firms are referred to as “born global” (Knight and Cavusgil 2004) or “international new ventures (INVs)” (Oviatt and McDougall 1994). With focus on early internationalizing firms, our research question is – how do these firms realize export performance benefits from external assistance, both individually and through resource combination from government and non-government sources, with moderation of firms’ age and size? Our study is significant in a number of ways. First, it includes firm age and size (i.e. the liabilities of newness and smallness, in a contingent relationship) then, it differentiates between export assistance from government and non-government entities and emphasizes the non-government support’s contribution. We have also introduced the concept of RO, specifically resource bundling, to export performance literature.

Theoretical background and hypotheses development

We have identified the following gaps in existing literature. First, there is a predominant focus on government support in export assistance research (e.g. Catanzaro et al. 2015; Durmuşoğlu et al. 2012; Gençtürk and Kotabe 2001; Haddoud et al. 2017; Leonidou et al. 2011, etc.). Secondly, there is less attention on firm age and size. Most studies do not emphasize these since they are based on traditional exporting firms and only investigate their direct relationship (for a review, see Faroque and Takahashi 2012; Catanzaro et al. 2015), whereas studies analyzing contingency and indirect relationship overlook these factors (e.g. Catanzaro et al. 2015; Lages and Montgomery 2005; Francis and Collins-Dodd, 2004; Shamsuddoha et al. 2009a, 2009b, etc.). Finally, only a few studies consider firm age and/or size (e.g. De Falco and Simoni 2014; Faroque and Takahashi 2015; Faroque et al. 2017; Haddoud et al. 2017; Sousa and Bradley 2009; Wang et al. 2017; Wilkinson and Brouthers 2006, etc.). On the other hand, the liabilities of newness and smallness present severe obstacles to new ventures when they enter foreign markets (Oviatt and McDougall 1994; Zahra 2005). Yet early internationalizing firms achieve substantial performance because of their external networks and resources mobilized from external sources (Sharma and Blomstermo 2003). This phenomenon, however, does not neutralize the role of firm size and age.

We have segmented external export assistance into two broad categories, namely financial and non-financial, which includes informational and experiential resources. In line with prior studies that export support plays a positive and crucial role in improving firm performance (e.g. Durmuşoğlu et al., 2012; Haddoud et al. 2017; Gillespie and Riddle 2004; Sousa and Bradley 2009, etc.), we hypothesize the following:

H1: The greater the use of government export assistance, the higher the performance of early internationalizing firms.

H2: The greater the use of non-government export assistance, the higher the performance of early internationalizing firms.

Smaller and younger firms typically experience resource constraints and need to acquire organizational capabilities either from external sources, or by developing these internally through trial and error processes (Carnes et al., 2016). Due to internal resource constraints, we expect younger and smaller firms to place more importance on resource acquisition and accumulation for internationalization than that of larger and older firms. As firms age and become larger, availability of slack resources generate sluggishness in looking for external resources, and assistance from government sources becomes less important. However, support from non-government sources should be more accessible. Government assistance is an unrequited relationship as nothing is reciprocated or returned. Nevertheless, association with non-government institutes is reciprocal and requires trust and relationship building, which firms achieve as they age and grow. Therefore, we hypothesize the following:

H3: As firms age, the positive relationship between government export assistance and export performance is weakened.

H4: As firms grow, the positive relationship between government export assistance and export performance is weakened.

H5: As firms age, the positive relationship between non-government export assistance and export performance is strengthened.

H6: As firms grow, the positive relationship between non-government export assistance and export performance is strengthened.

Instead of concentrating on the resource complementarities that can be achieved through such external sources, we have focused on the other side of the coin, i.e. resource bundling, or the firm's ability to integrate the resources into a bundle in order to realize the potential value of the complementarities. Thus, while we agree with existing research that external resource endowments explain, in part, firm performance, we posit that the effectiveness of this resource endowment to provide productive performance outcomes depends on the extent to which the firms combine these resources. Combinative use of existing and acquired resources can generate a higher total value than the use of each type of resources independently (e.g. Denrell et al. 2003; Larsson and Finkelstein 1999; Madhok

and Tallman 1998, etc.). The public export assistance will bring limited benefits, unless the firms devote deliberate effort to combine resources from both government and non-government sources. For example, exporting firms can lower their production cost with the tax-free raw materials import facilitated by the government and loans at below market interest rate provided by non-government financial institutions. Additionally, buying houses (the agent or mediator that monitors and facilitates all activities between the apparel manufacturer and foreign buyers), give advice for documentation and provide technical support. Thus, the performance advantage becomes synergistic and internalized when firms integrate export assistance from these different sources for the same purpose of greater export performance. Our next hypothesis reflects the same:

H7: The greater the resource bundling, i.e. interaction between government and non-government assistance, the higher the performance of early internationalizing firms.

The entrepreneur’s existing relationships with buyers, suppliers, export trading houses and advisors (that contribute to firm’s improved performance), are valuable sources for external resources (Faroque et al., 2017). Firm dependency on public export support, especially for marketing resources, should diminish over time (Faroque and Takahashi, 2012), which implies larger and experienced firms focus more on acquiring resources from network relationships instead of export support programs. Therefore, as firms age and become larger, the resource bundling effects from government and non-government assistance becomes less significant. Thus we hypothesize that:

H8: As firms age, the positive resource bundling effects of government and non-government assistance on export performance is weakened.

H9: As firms grow, the positive resource bundling effects of government and non-government export assistance on export performance is weakened.

Figure 1 presents the proposed hypotheses and the conceptual framework for our study.

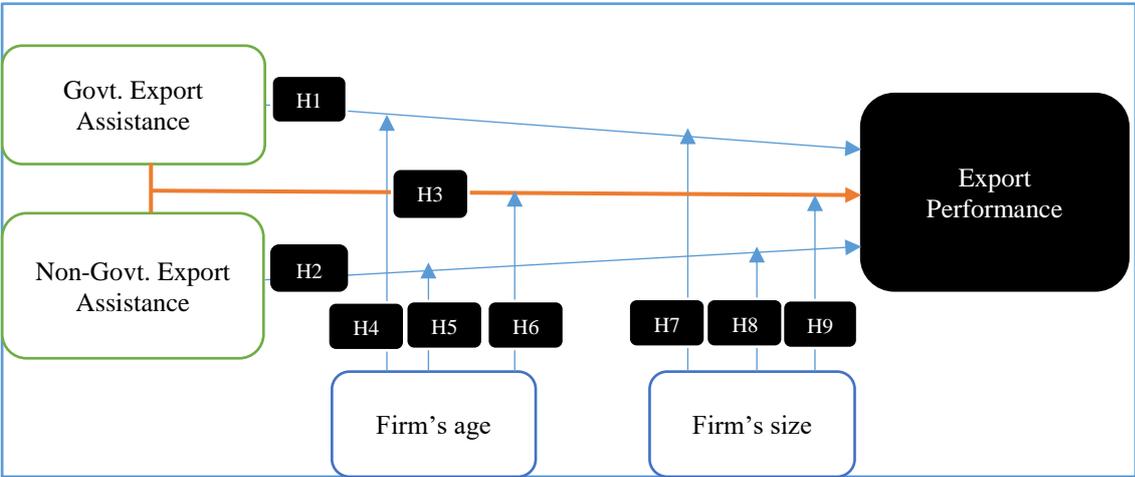


Fig1: The role of firm age and size on the relationship between export assistance and performance

Research methods

We collected data from a sample of 705 apparel exporting firms of Bangladesh and analyzed it through hierarchical regression. Government assistance is measured by two items: financial and marketing, whereas non-government support is by three items: marketing assistance from exporters’ associations and buying houses, and financial assistance from bank and insurance companies. Export financial performance is measured by export sales volume, sales growth and profitability (Katsikeas et al. 2000). As degree of internationalization (DOI), we have focused on export scope, defined in terms of number of countries, rather than scale (Oviatt and McDougall 1994). We have also considered firm

age, in terms of internationalization experience (Gençtürk and Kotabe 2001), and size, in terms of number of employees (Chandler 1962; Penrose 1959), as moderators.

Table 1: Results of regression analysis

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Controls										
Firm age	.061NS	.059 NS	.053 NS	.059NS	.067NS	.066NS	.065NS	.060NS	.005NS	-.008NS
Firm size	.157**	.172***	.174***	.173***	.158***	.158***	.160***	.157***	.163***	.184***
DOI	.212***	.232***	.221***	.220***	.215***	.215***	.215***	.211***	.219***	.222***
Single effects										
Govt. assistance		.204***	.102*	.096*	.080NS	.081NS	.084NS	.049NS	.047NS	.049NS
Non-govt. assistance			.184***	.186***	.190***	.188***	.183***	.309***	.311***	.309***
Interaction effects										
Govt. assistance x Age				.053NS	.004NS	-.002NS	.005NS	.000NS	-.020	-.023
Govt. assistance x Size				-	.121**	.122**	.109*	.098*	.095*	.102*
Non-govt. assistance x Age					-	.250NS	.001NS	.005NS	.069NS	.081NS
Non-govt. assistance x Size						-	.023NS	.033NS	.023NS	.007NS
Govt. assistance x Non govt. assistance							-	.209***	.203***	.209***
Govt. assistance x Non govt. assistance x Age								-	.102*	.122*
Govt. assistance x Non-govt. assistance x Size									-	-.045NS
R ²	.130	.171	.194	.197	.209	.209	.209	.239	.245	.246
Change in R ²		.041	.023	.003	.012	.000	.000	.03	.006	.001
F-value	32.030** *	33.006***	30.885***	26.158** *	24.054** *	21.024** *	18.695** *	20.02***	18.70***	17.220***
Note: * $p < .05$; ** $p < .01$; *** $p < .001$.										

Analysis and results

Our regression results are presented in Table 1ⁱ. The stand-alone effects of government and non-government export assistance are significant and positive ($\beta=0.204$, $p<0.001$; $\beta=0.184$, $p<0.001$, respectively). The resource bundling also has significant positive impacts ($\beta=0.209$, $p<0.001$); however, its R^2 value (0.239) is higher than that of models analyzing individual impacts (0.171 and 0.194). Then, the moderating effects of firm age and size with government and non-government support indicates that, only size is significant ($\beta=.121$, $p<0.001$) for government support. However, the interaction coefficient for firm size is positive, which is contrary to the weakened positive relationship proposed in H4. Finally, the resource bundling effects, with moderation of firm age and size, indicate that only age is significant ($\beta=.102$, $p<0.05$), supporting H8, though in an opposite direction.

Discussions and implications

Export assistance provided by government and non-government entities has stand-alone and resource bundling effects on early internationalizing firms' performance, whereas the combined effects are significantly stronger. Next, firm size is significant only for government assistance though in an unexpected opposite direction. We have investigated the contextual features of apparel exporting firms in Bangladesh to explain this. The financial incentives like income tax rebate, duty draw-back scheme, duty-free imports, etc. are directly linked to firm size (Hossain and Alauddin 2005; Shamsuddoha et al. 2009b). Thus, the inherent nature of the assistance leaves smaller firms at a disadvantage. In contrast, larger firms (having greater sales and more valuable assets), can take more short and long-term loans (ILO/ IFC, 2016). Larger exporting firms also benefit more from marketing assistance, specifically in participating in foreign trade fairs and exhibitions. So, smaller exporting firms suffer from the liability of smallness, not only during internationalization (as supported in the early internationalization literature), but also in having access to government assistance. In contrast, the liability of smallness does not matter much in attracting resources from non-government entities. Finance institutions have customized programs to assist Small and Medium Enterprises (SMEs) (Ara and Akter 2016). Exporters' associations such as the Bangladesh Garments Manufacturers and Exporters Association (BGMEA), and Bangladesh Knitwear Manufacturers and Exporters Association (BKMEA) assist their members irrespective of their size. Furthermore, age plays no moderating role on government and non-government assistance individually, but becomes prominent only when support from these two different sources interact. The critical mechanism through which government and non-government support interacts and exerts resource bundling effects may offer an explanation for this. While government assistance is static and systemic, non-government assistance, however, is more relational. To get assistance from government, especially public financial agencies, firms only need to fulfil certain requirements. In contrast, firms need to build long-term relationships with non-government entities, and this requires time. Finally, when static government assistance interacts with relational non-government assistance, the resource bundling effects are amplified. Nonetheless, the resource bundling effects become stronger as the firms become experienced. We can explain this with recent studies (Gençtürk and Kotabe 2001; Freixanet 2012; Lages and Montgomery 2005, etc.). Older and larger firms are in an advantageous position because of their more standardized systems, routines, and procedures, which help them to coordinate between different sources of assistance. In addition, their long term trust-based relationship with external network partners helps them to internalize the assistance more efficiently. As a result, the firms become more knowledgeable and efficient in managing dual networks (government and non-government) with age, and, thus, are able to combine external resources with internal ones in their portfolio to extract more benefits from them.

Our study has important contribution to theory development in IE and export assistance literature by reflecting the critical interaction mechanism between government and non-government assistance, and the greater positive impacts of resource bundling. Moreover, it shows that the role of RO is not weakened as firms age. Combining both, we infer that the liabilities of newness is present in RO, but not the liabilities of smallness. Therefore, our findings offer empirical insights to future research based on the RO concept. Our study also extends the RBV related to early internationalization by recognizing the liabilities of newness and smallness, and the importance of non-government export assistance. When managers in exporting firms combine government assistance with non-government

support, they can overcome the liability of smallness that they might face with government assistance only. Likewise, resources provided by reciprocal and unrequited sources can be bundled with those of non-reciprocal sources to compensate for the lack of internal resources. In addition, both large and small firms can combine the resources from different external sources in order to enhance their performance irrespective of their age. Nonetheless, that larger firms capitalize more on government export assistance in realizing performance advantage leaves the smaller firms with the liability of smallness in accessing such programs. We suggest that the state should create more export promotion programs jointly with non-government institutions, such as private financial providers or exporters' associations. Policy makers should design and deliver assistance programs that will require exporters to work with government and non-government agencies equally.

Conclusion, limitations and future research

Our findings suggest that, the credit for export and economic growth should *not* go to the government entirely. Our research offers valuable academic insights, along with important managerial and policy implications. However, similar to any empirical study, our study has a few limitations. First, we adopted a cross-sectional research design and cannot confirm causality among the variables used. Future studies could adopt a longitudinal research design to allow for the time lag required for the performance outcomes. Then, we investigated the impacts of export assistance on early internationalizing firms in the exporting apparel industry of Bangladesh. Future researchers may include both early internationalizing and traditional exporting firms to compare the differential impacts of export support on different types of firms. Lastly, analyzing a single industry in a developing country may have limited the generalizability of the findings of our study. Future researchers may use our model for different countries and in a multiple industry setting.

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ⁱ Additional tables for correlation and factor analysis are available on request.