

## Financial factors and export behavior of small and medium-sized enterprises in an emerging economy

### Facteurs financiers et comportements d'exportation des petites et moyennes entreprises dans une économie émergente

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**Abstract** Financial considerations play a major role influencing the internationalization of firms. However, it is not clear how integrated financial factors such as cost and capital are related to the export behavior of small- and medium-sized enterprises (SMEs). The purpose of this study is to examine financial profiles of SMEs in an

#### Summary highlights

*Contributions:* This study examines the combined effects of financial factors (risk versus resources) on export decisions of SMEs in an emerging economy, while prior studies tend to examine them separately. Also, focusing on Malaysia provides a novel perspective because its conducive financial market is comparable with that of advanced countries, thus distinguishing it from other emerging economies traditionally studied.

*Research Questions/Purpose:* How are financial risk (cost) and resources (internal and external capital) associated with the export decisions of a firm? This study seeks to examine the financial profile of exporters and non-exporters to draw conclusions about how both factors affect during the internationalization of firms.

*Results/Findings:* Through logistic regression analysis on empirical data from 356 SMEs, we found that exporters possess higher internal financial resources and are less constrained by external capital. However, they perceive higher export costs in comparison with non-exporters.

*Limitations:* Due to numerous possible export determinants, this study is not capable of observing all controls. Also, the statistical technique used prevents us from rigorously demonstrating the interactions and causality between variables.

*Theoretical Implications and Recommendations:* This study addresses financial factors as export stimuli and inhibitor in a single model. It contributes by explaining the trade-off between risk and return during the internationalization process of firms. Accordingly, it provides micro-level data concerning a macro-level phenomenon.

*Practical Implications and Recommendations:* Particularly in Malaysia, where access to financing is very high but the export level remains low, the findings from this study suggest that the government programs need to supply credit to potential exporters rather than focusing on investments to cut costs.

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emerging economy by discriminating between non-exporters and exporters. Survey data from 356 SMEs in Malaysia was analyzed to see how perceived costs, internal financial resources, and external capital constraint are associated with their export status. Through a multiple logistic regression model, it is found that exporters perceive higher internal financial resources and fewer constraints in accessing external capital. They also perceive higher export costs than non-exporters. This study offers academics, entrepreneurs, and policy-makers a comprehensive understanding of financial characteristics that explain the export behavior of SMEs in developing countries.

**Résumé** Les considérations financières jouent un rôle majeur dans la décision des entreprises de s'internationaliser. Cependant, il est difficile de déterminer l'influence de facteurs financiers tels que les coûts et capitaux sur les comportements d'exportation des petites et moyennes entreprises (PME). Le but de cette étude est d'examiner les profils financiers de plusieurs PME d'une économie émergente en distinguant les non-exportateurs des exportateurs. Les données d'une étude sur 356 PME en Malaisie ont été analysées afin de comprendre comment les perceptions des coûts, ressources financières internes, et contraintes de capital externe sont liées au statut d'exportation. Au moyen d'un modèle de régression logistique multiple, nous avons constaté que les exportateurs perçoivent plus de ressources financières internes et moins de contraintes dans l'accès au capital externe. Ils perçoivent également des coûts d'exportation plus élevés que les non-exportateurs. Cette étude offre aux universitaires, entrepreneurs et législateurs une compréhension globale des caractéristiques financières expliquant les comportements d'exportation des PME dans les pays en voie de développement.

**Keywords** Financial factors · Perceived costs · Financial resources · Financial constraint · Export behavior · SMEs · Developing countries

**Mots clé** Facteurs financiers · Coûts perçus · Ressources financières · Contraintes financières · Comportement d'exportation · PME · Pays en voie de développement

## Introduction

The global economic liberation offers opportunities for businesses to penetrate foreign markets, and exporting is the most feasible way for small- and medium-sized enterprises (SMEs) to do this (Leonidou et al. 2007). Although SMEs represent most of the established firms in many countries, they are still a minority in terms of export operations when compared with large companies. Only 10 % of SMEs in Malaysia were exporting in 2010 and contributed around 20 % of the country's exports value, as reported by SME Corporation Malaysia. This figure is far less than in advanced economies where 38 % SMEs in Italy were exporters in 2010, along with 42 % in France and 67 % in Germany (Osec's SME Export Outlook). According to the National SME Development Council of Malaysia Report 2010, lack of financial capital, innovative products, entrepreneurial skills, and management capacity may all contribute to this discrepancy.

This study is undertaken to explore specifically the financial factors associated with the export behavior of SMEs in an emerging economy. Like other internationalization modes, export activities incur additional expenses beyond those needed for domestic operations (Minetti and Zhu 2011). Substantial spending is required from the production expansion in the local country to final product placement in the export markets. It is noted that the internationalization of firms is a behavioral process (McDougall and Oviatt 2000). Their export participation is influenced by the perception of the effect risky behavior may have on the financial investment of the managerial decision-maker (Acedo and Galán 2011). The owner with short-term perspectives exhibits an unfavorable attitude towards exporting because this strategy takes longer to be profitable (Kotabe and Czinkota 1992; Tannous 1997).

Another financial consideration is adequate capital resources to withstand the extra costs throughout the export development stages (Kotabe and Czinkota 1992). Several empirical studies suggest that the availability of capital determines a firm's growth (Becchetti and Trovato 2002; Cressy and Olofsson 1997; Hutchinson and Xavier 2006; Oliviera and Fortunato 2006) and investment level (Chow and Fung 2000; Hutchinson 1995). In the context of SMEs financing, business activities are mostly funded from internal sources (Rosli 2012). For the purpose of expansion, they prefer to retain income and raise very little external financing (Carpenter and Petersen 2002). Therefore, export ventures of SMEs are stimulated by a possession of sufficient, and mostly internal, financial resources.

Although capital buffers from internal resources is essential for SMEs, borrowing from external resources is necessary to sustain growth (Gregory et al. 2005; Tannous 1997; Vos et al. 2007). However, banks or similar financial institutions are often reluctant to lend to them due to low economic merit (Cziraky et al. 2005) and poor financial characteristics (Griffith 2011). This eventually makes external financing very costly (Brau 2002; Carpenter and Petersen 2002; Greenaway et al. 2007). As a result, external capital constraint impedes export involvement; firms with access to external capital show better growth than those that are supported by internal resources (Batten and Hettiihewa 1999).

Incorporating these financial considerations brings to light the following question: *how are integrated financial factors of cost and capital associated with the export behavior of SMEs?* A substantial body of literature has investigated variables that discriminate exporting firms from non-exporters at both the managerial and firm levels. Although financial factors are not excluded, the analysis has tended to be isolated and fragmented by either the availability of financial capital as a stimuli (Kaleka 2002; Minetti and Zhu 2011) or unbearable costs as an obstacle (Khan and Kalirajan 2011; Shepherd 2010). Consequently, there is still insufficient knowledge about the combined effects considering that those factors emerge simultaneously during the internationalization process. The integration of pull and push financial factors is imperative for further understanding a firm's strategic behavior. Moreover, current research regarding the relationship between internal and external financing is rather mixed. While a majority of studies ascertain that sufficient capital is a prerequisite for growth (Yaztanfar and Turner 2013), empirical evidence has found that the ability to acquire external capital does not significantly predict the subsequent propensity to export (Westhead et al. 2001).

The purpose of this study is to examine the financial profile of exporter and non-exporter SMEs in an emerging economy, Malaysia. In particular, two core financial

instruments of cost and capital are incorporated to investigate how perceived costs, internal financial resources, and external capital constraint are associated with their export status. The paper contributes to the literature by examining, in practice, the trade-off between financial risk and return in the internationalization process (Cavusgil et al. 2013). The theoretical basis of this study is rooted in the internationalization model of a firm by Jones and Coviello (2005), where the effects of financial factors appear at both the individual and firm level. The former captures a philosophic view of entrepreneurs as the decision-maker of a firm (perceptions and attitudes towards the internationalization risks), while the latter is supported by the theory of resource-based view (RBV) that endowment of assets or resources enables a firm to pursue business development processes (Kaleka 2002).

The approach adapted in this study is valuable as it addresses general questions about financial influences on export decisions of SMEs in emerging markets, which have been neglected in previous research. Specifically, this study uses empirical data in Malaysia, a high developing country whose economic growth is largely driven by the export-led development model (Reinhardt 2000; Cavusgil et al. 2013). According to the Ministry of International Trade and Industry of Malaysia, the country's total exports in 2010 totaled US\$200 billion and is projected to be US\$690 billion in 2015. Also, the Global Competitiveness Report 2014–2015 by the World Economic Forum ranked its conducive financial sector comparable with that of developed markets, thus distinguishing this work from other emerging economies traditionally studied.

## Literature review

### (Perceived) costs as an export barrier

International trade cost is defined as the difference between the marginal production cost in the home country and the price paid by end customers in the host country (Khan and Kalirajan 2011). These costs are categorized into natural transport costs, behind-the-border costs, explicit beyond-the-border costs, and implicit beyond-the-border costs (Khan and Kalirajan 2011). More commonly, export costs are divided into internal and external costs. The former refers to the investment made within the firms operations such as cost of product modification, production expansion, and employee training (Verwaal and Donkers 2002), while the latter is sunk costs that emerged from imperfect information and barriers that separate domestic and foreign markets such as import taxes charged by foreign governments (Blanes-Cristobal et al. 2008; Shepherd 2010).

International entrepreneurship involves risk-taking behavior beyond national borders to create value in an organization (McDougall and Oviatt 2000). This attribute is essential in explaining export behavior, especially among SMEs where the owner plays a major role in driving the strategic posture of the firm. The occurrence of export costs triggers a perception among decision-makers which is translated into a commitment to pursue it or not. The Uppsala model posits that commitment for involvement is a key in the internationalization of firms (Johanson and Vahlne 1977). Psychological and attitudinal commitments, initiated partly from a financial consideration on costs, invoke interest to seek further information (Tan et al. 2007). Accordingly, sufficient information provides the knowledge needed to navigate the export marketplace, thus

encouraging firms to export (Minetti and Zhu 2011). The high export costs, however, often create unfavorable perceptions that firms are not willing to bear the risks although it might return greater profits.

The international business literature argues that export ventures of SMEs are elicited from entrepreneurial characteristics in terms of risk-taking and competitive aggressiveness (Jones and Coviello 2005). Also, a theoretical model of export behaviors for smaller industrial firms ascertains that their intentions and subsequent behavior are shaped by a managerial belief on the financial value of exporting (Axinn et al. 1994). This attribute exhibits passive attitudes towards exporting if the costs are perceivably high and unbearable, thus making the financial risks larger than the potential returns.

From the perspective of RBV, the source of competencies of firms can range from tangible physical inputs to intangible assets of human and intellectual capital (Wernerfelt 1984). However, it is found that the latter is superior over the former in determining the performance or possible sustainable competitive advantage of firms (Hitt et al. 2007). Also, the theory of entrepreneurship asserts that the abilities of entrepreneurs are the principle human resource possessed by firms (Akio 2005). The entrepreneur's attributes include soft qualities of mindset that are crucial during strategic decision-making such as export participation (Akio 2005; Fahy 2002). Empirical studies show that the aspirations, beliefs, expectations, and perceptions of entrepreneurs would stimulate the interest to initiate exporting (Cavusgil and Nevin 1981; Jaffe and Pasternak 1994; Wiedersheim-Paul et al. 1978). In fact, these qualities are proactive in nature, more rational, aggressive, and objective-strategic oriented export behavior (Leonidou et al. 2007).

### Financial resources as an export stimuli

The propensity to enter foreign markets is stimulated by favorable perceptions and attitudes regarding internationalization together with the availability of resources (including financial) (Jones and Coviello 2005). Financial capital acts as an asset because it enables firms to sufficiently support their current and future operations (Greenaway et al. 2007). Accordingly, export engagement is doable only for productive firms with enough liquidity because most entry costs must be paid up front (Minetti and Zhu 2011; Zia 2008).

The traditional paradigm of RBV argues that the growth of firms is attainable through the development or exploitation of the available resources and capabilities (Wernerfelt 1984). In fact, the endowment of resources such as financial assets defines heterogeneity in the growth and performance of firms (Barney 1991). Studies on the internationalization of SMEs have reviewed RBV to identify a range of capital factors including financial resources to explain their export behaviors (Westhead et al. 2001; Wiedersheim-Paul et al. 1978). Empirical evidences have suggested that the presence of strong financial capital encourages firms to initiate exporting (Kaleka 2002; Minetti and Zhu 2011).

In the context of SME financing, many of them rely heavily on internal resources to finance their business activities as they are often restricted by external capital (Rosli 2012). Particularly in developing countries, SMEs choose to finance their operations internally via retained earnings before gradually acquiring external capital (Batten and Hettihewa 1999; Carpenter and Petersen 2002). Therefore, it is necessary to evaluate the internal financial characteristics of SMEs and examine the associations with their strategic behavior, as adopted in this study. First, financial assets emphasize outstanding financial performance (Griffith 2011) that is measured in terms of profitability and cash

flow improvement (Batten and Hettihewa 1999). Second, financial standing is measured by the availability of strong resources that are imperative for sustaining the growth of firms (Griffith 2011). Third, financial characteristics are attributed with the possession of liquid assets to be pledged as collateral when acquiring external capital (Batten and Hettihewa 1999).

### External financial constraint

Another critical source of growth for firms is the ability to acquire external capital (Westhead et al. 2001). Financing from outsiders has become essential for the survival and growth of SMEs (Vos et al. 2007). However, the majority of studies discuss it as a constraint rather than as an asset for SMEs (Beck et al. 2006; Bernard and Jensen 2004; Chow and Fung 2000; Cressy and Olofsson 1997; El-Said et al. 2013; Hutchinson and Xavier 2006; Tannous 1997; Zia 2008). Capital constraint is defined as a decrease in the supply of funds that results in a lower level of investment (Beck et al. 2006). In the context of export behavior, it is suggested that securing external source of financing is necessary to remove financial barriers (Westhead et al. 2001).

The deficiency in external financing from conventional banks or similar financial institutions among SMEs is caused by several factors. First, many SMEs demonstrate poor financial performance as demonstrated by low capitalization, low profitability, insufficient assets, and high mortality (Batten and Hettihewa 1999; Cziraky et al. 2005; Griffith 2011); many creditors consider their repayment prospects to be risky. Second, SMEs lack the skills necessary to prepare feasibility reports for their loan applications, thus supplying inadequate information through unaudited financial records (Batten and Hettihewa 1999; Brewer 2007; Cressy and Olofsson 1997; Cziraky et al. 2005). As a result, creditors find it difficult to assess their investment planning in the foreign markets (Cziraky et al. 2005). The theory of information asymmetry posits that an information gap exists when applicants have more knowledge about the investment than creditors but are unable to convey it (Stigler 1961). In order to overcome that, SMEs should adopt strategies to bridge the informational asymmetry (Tannous 1997).

Third, a theory of transaction costs suggests that fixed administrative costs for processing financial transactions are the same regardless of the number of units involved (Williamson 1981). Therefore, for any given fixed costs, the increasing number of units will proportionally decrease the average cost per unit. This principle exhibits a disadvantage to SMEs (El-Said et al. 2013; Tannous 1997) as creditors hesitate to approve small scale unit loans (Thampy 2010). Fourth, in the context of export financing, the repayment risk among SMEs is perceivably high as they strongly depend on cash from export transactions to repay their loans (Tannous 1997), thus jeopardizing their chance of obtaining external capital.

External capital constraints are more prevalent in developing countries than in advanced economies (Cziraky et al. 2005; Thampy 2010). Financial institutions in emerging markets exercises their virtual monopolies, thus increases the borrowing costs and limiting the ability to acquire external financing (Ayob and Freixanet 2014; Chow and Fung 2000). In contrast, firms in developed countries have better opportunities to access external funding (Hutchinson and Xavier 2006) from the establishment of public funded schemes (Zecchini and Ventura 2009) which rarely exist in developing countries.



## Model and hypotheses

### Perceived costs

Empirical evidence finds export entry cost to be a significant factor in explaining the tendency to initiate (Bernard and Jensen 2004) and the level of export response by firms (Das et al. 2007). Accordingly, the literature suggests that firms would consider exporting only if the expected profits are positive (Blanes-Cristobal et al. 2008; Das et al. 2007; Roberts and Tybout 1997). A study by Khan and Kalirajan (2011) found similar results at a country level where strategies to reduce export costs adopted by the government have increased the propensity for firms to export. Therefore, from the strategic behavioral point of view, it is argued that export ventures are not a viable strategy if the perceived costs are higher than the estimated revenue.

The internationalization model suggests that perceptions and attitudes towards costs influence the export behavior of firms (Acedo and Galán 2011). In the same vein, an international business study posits that firms will not venture into exporting as long as they regard costs as a barrier (Kotabe and Czinkota 1992). It is explained that export resistance is the result of a pessimistic belief that the costs are excessive and that this invokes an unwillingness to commit resources for this purpose (Tan et al. 2007). On the other hand, a favorable perception of export costs acts as a proactive internal stimuli (Leonidou 1998) that encourages firms to plan strategies for involvement in the foreign markets (Reid 1981).

From our analysis, this study holds that the export status of firms can be determined based on the perceived costs, where exporters are expected to perceive lower export costs than non-exporters. This study relies on the perceived costs rather than actual costs because non-exporters are yet to experience the real costs of exporting. Although this construct is measured at the managerial level, it can be interpreted as a behavior of SMEs because of the strong influence of owners on the subsequent strategy implemented by a firm (Acedo and Galán 2011; Sommer 2010).

Exporters perceive lower export costs than non-exporters

### *Internal financial resources*

The literature suggests that the endowment of resources (financial is not excluded) is associated with the export behavior of firms. In the early export behavioral models, financial resources are presented as a prerequisite for the export initiation of firms (Bilkey 1978; Wiedersheim-Paul et al. 1978). It stimulates the intention and increases the level of commitment to foreign markets, thus allowing firms to employ an export strategy (Weidersheim-Paul et al. 1978). Later, financial assets have become one of a firm's competitive resources in export operations (Kaleka 2002). Tan et al. (2007) holds that a firm's resources influence the transition from a purely domestic firm into an international firm. It is thought that only firms with adequate financial capital are able to compensate for all costs, become exporters, and remain profitable (Das et al. 2007; Minetti and Zhu 2011). Empirical studies also show that the capital health of a firm, as measured by its internal liquidity and leverage, is significant for predicting the propensity for exporting (Greenaway et al. 2007). Our study concentrates on internal sources

of financing as a firm's competitive resource, complying with the context of SMEs discussed in the earlier section.

Along the same lines, insufficient financial resources emerge as a barrier, inhibiting firms from venturing into exporting. It is explained that an SME's growth, including their export strategy, is restricted by capital shortage (Leonidou 1995a; Requena-Silvente 2005) because many of them rely on limited internal financing (Oliviera and Fortunato 2006; Vos et al. 2007). Kaynak and Kothari (1984) posit that insufficient capital impedes the export initiation of firms because they are incapable of financing the additional expenses incurred. Drawing on this discussion, it is hypothesized that exporters, as a group, possess better internal financial capital than non-exporters, which allows them to pursue an export strategy.

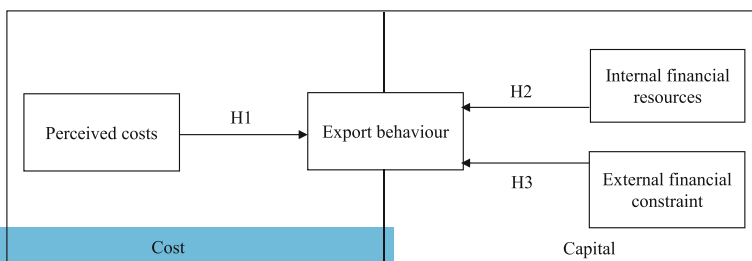
Exporters have better internal financial resources than non-exporters

### *External financial constraint*

External financial constraint are measured by comparing the actual growth rate of firms with external financing and the maximum growth rate they can attain without such assistance (Beck et al. 2006). Capital constraint is justified if the former is far greater than the latter. As a consequence, growth strategies which include export ventures remain unfulfilled as long as they are restricted by insufficient external capital (Hutchinson and Xavier 2006). Also, empirical evidence shows that firms who manage to secure external funding show higher growth than what would be expected with internal financing (Batten and Hettihewa 1999). In the context of export behavior, the acquisition of external capital shows dominant effects in predicting the export decision of a firm (Zia 2008). The literature in management studies suggests that external agents of financing from private banks act as stimuli to encourage export participation of firms (Leonidou 1998). On the other hand, limited capital from outsiders is more prevalent among non-exporters and has a negative impact on their export decisions (Bilkey 1978; Leonidou 1995b; Zia 2008).

Exporters are less constrained by external financing than non-exporters

Figure 1 shows the framework on financial factors of export behavior adopted in this study.



**Fig. 1** Conceptual framework



## Methodology

### Sample and data collection

The sample in this study consists of manufacturing SMEs across different industries, drawn from the SME Corporation Malaysia database. Manufacturing firms were chosen because they contribute significantly to the country's economic activities and hold a dominant position in world trade. Service firms were disregarded in order to create a homogenous sample, avoid content-bias, and improve the validity of measurements.

This study employed a questionnaire as a means of data collection. It was designed and adapted from the literature, as discussed in the following section, with a complementary data from the SME Corporation Malaysia database for analysis. It was pretested on a small sample of business owners to evaluate the clarity of questions, instructions, and response format. After the revised (final) version was translated into an online survey, a link to the survey was sent to the owners of the firms. The use of online surveys is more convenient for respondents as it saves both time and effort, and a higher response rate than of traditional postal surveys is expected (Wright 2006).

The survey data was collected over a 6-month period between September 2012 and March 2013.<sup>1</sup> The link was sent to 1190 firms, randomly selected from the database. Within a 3-month period, 213 firms or 17.90 % of respondents answered the questionnaire. After a reminder, another 146 responses were received to increase the total of 359 responses, or a 30.17 % response rate. However, three responses were rejected due to incomplete, thus unusable, data, which brought the net response rate to 356 firms or 29.91 %. The companies were composed of 214 exporters (60.11 %) and 142 non-exporters (39.89 %). Table 1 presents the sample characteristics as a break-up according to the export status.

### Constructs and measures

All measurement items in this study were adapted from comparable studies measuring similar constructs. Explanatory variable one, *perceived costs* was measured on a five-point Likert scale from 1 (very low cost) until 5 (very high cost), where the owners were asked to perceptually quantify five types of cost: product/production modification, export courses/trainings, logistics/marketing, administrative (licensing and paperwork), and associated taxes (Khan and Kalirajan 2011).

Items for explanatory variables two and three were also constructed on a five-point Likert scale, following an extensive review of literature (Carpenter and Petersen 2002; Cziraky et al. 2005; Griffith 2011). *Internal financial resources* assess three attributes: adequate liquidity from internal resources, improvement in financial performance, and the availability of assets to be pledged as collateral. *External financial constraint* evaluates three statements, if (1) the firm needs more external financing than they

<sup>1</sup> The questionnaire was written in English, allowing comparison to prior studies. English proficiency in Malaysia is the highest in Asia and ranked 9th in the world among non-native countries (EF English Proficiency Index score in 2011: 55.54, high proficiency).

**Table 1** Sample characteristics

Characteristics	Non-exporter ( <i>n</i> =142)			Exporter ( <i>n</i> =214)		
	Mean	SD	Percentage	Mean	SD	Percentage
Years of operation	14.26	10.81		20.67	10.77	
Years of exporting	–	–		13.17	8.90	
Export turnover contribution	–	–		59.88	29.12	
Total turnover (million) <sup>a</sup>						
Less than RM1 million			50.7			17.8
Between RM1 million to RM10 million			29.6			35.5
More than RM10 million			19.7			46.7
Total employees						
Less than 20			59.2			25.2
Between 20 and 50			18.3			17.8
More than 50			22.5			57.0
Type of industry						
Nondurables			45.1			56.1
Durables			19.7			16.8
Food/agricultural			35.2			27.1
Product principle						
Industrial			19.7			29.0
Consumer			54.9			43.0
Both			25.4			28.0

<sup>a</sup> Currency: Malaysian Ringgit

currently obtained, (2) the external credit offered is limited, and (3) their size has prevented them from acquiring external loans exceeding a certain amount.

In this study, the dependent variable of *export behavior* is measured based on the export status of a firm, coded in the binary form: 0 for non-exporter and 1 for exporter. It defines the decision to start exporting or not.

For the purpose of statistical analysis, complementary data reported to the SME Corporation Malaysia was retrieved to control for the effects of firm's characteristics. It consists of age (natural logarithm of operational years), size (number of employees), turnover (reported in categorical), product principle (industrial, consumer or both), industry (nondurables, durables or food/agriculture), and product grade (an incremental rating from 1 to 5 awarded by SME Corporation Malaysia based on the price competitiveness and product uniqueness).

## Statistical analysis

Prior to running statistical analysis, considerable measures were taken against response and non-response bias, common method bias (CMB) as well as multicollinearity. It is ensured that the surveys were answered only by the owner to validate key informant

criteria. The link to the survey was sent confidentially to the owners using their personal corporate e-mail address, and all responses were received from those e-mails. Also, all respondents complied with the definition of SMEs,<sup>2</sup> operated in the manufacturing industry and were locally owned, as reported in the database. To ensure homogeneity of the sample, firms that are related network suppliers to foreign multinational corporations (MNCs) were removed from the list, leaving only entrepreneurially born establishments. Furthermore, no significant differences were found between the early 213 responses and the latter 146 responses, thus reasonably holding that non-response bias was not presented.

Although the effect of CMB could be minimal, necessary measures must be taken to ensure it is not distorting (Conway and Lance 2010). Accordingly, Harmans one-factor test was performed and no single factor accounted for most of the covariance in the independent and dependent variables that was found (Podsakoff et al. 2003). Also, factor analysis found acceptable internal consistency for all explanatory variables as shown in Table 2. Lastly, multicollinearity issue of dependence among predictors did not emerge through two measures of variance inflation control (VIF); where VIF for all independent variables range between 1.08 and 2.22, and correlation matrix is shown in Table 3.

## Results

All hypotheses were tested using multiple logistic regression analysis to discriminate between exporters and non-exporters. The explanatory variables of perceived costs, internal financial resources and external financial constraint, as well as control variables discussed in the previous section were included in the model. The results of the model and the significance level are presented in Table 4. Accordingly, the model can be written as follows:

$$\begin{aligned} \text{Export status} = & \alpha_1 \text{Perceived costs} + \alpha_2 \text{Internal financial resources} \\ & + \alpha_3 \text{External financial constraint} \\ & + (\alpha_4 \text{Age} + \alpha_5 \text{Size} + \alpha_6 \text{Turnover}) \end{aligned}$$

The model is statistically significant at the 0.001 level and the overall predictive accuracy is 75.8 %. This indicates that the export status of SMEs is well-explained with the introduction of financial factors.

All explanatory variables are statistically significant in the model. However, the results support only hypotheses 2 and 3 but not hypothesis 1. Hypothesis 2, which posits that exporters possess better internal financial resources than non-exporters, is confirmed. This relationship, however, does not demonstrate a causal effect. Thus, it can be argued that a strong financial standing among exporters implies that (1) higher-quality firms (financially) are more likely to pursue an export strategy (Greenaway et al. 2007), and/or (2) export strategy positively contributes to the financial performance of firms (Das et al. 2007). Hypothesis 3, which states that exporters are less constrained by

<sup>2</sup> Definition of manufacturing SME in Malaysia is based on sales turnover and number of full time employees. Small enterprise: sales turnover between RM250,000 and less than RM10 million or full-time employees between 5 and 50; medium enterprise: sales turnover between RM10 million and RM25 million or full-time employees between 51 and 150. Ringgit Malaysia (RM)1=US\$0.3047

**Table 2** Factor analysis results for explanatory variables

Scale and item	Loadings	Eigenvalue	% variance explained
Perceived costs ( $\alpha=0.729$ )		2.523	22.935
1. Product/production modification	0.611		
2. Export courses/trainings	0.670		
3. Logistics and marketing	0.771		
4. Administrative costs	0.698		
5. Associated taxes	0.722		
External financial constraint ( $\alpha=0.850$ )		2.499	22.722
1. Need more external financing	0.855		
2. Limited external credit offered	0.894		
3. Restrained by size	0.849		
Internal financial resources ( $\alpha=0.486$ )		1.638	14.886
1. Adequate liquidity	0.860		
2. Improvement in financial performance	0.743		
3. Availability of assets	0.477		

$N=356$ . Extraction method: principle component analysis. Rotation method: Varimax with Kaiser normalization. Rotation converged in four iterations.  $\alpha$ =Cronbach's alpha

external capital than non-exporters, is also supported. This indicates that better access to external financing encourages firms to export (Westhead et al. 2001; Zia 2008) and/or the profits from exporting helps exporters to improve their financial profile as preferred by external lenders. On the other hand, we find that non-exporters are struggling to develop a trustworthy financial reputation to satisfy creditors.

Although the perceived costs variable is statistically significant, the effect is opposite of what was proposed in Hypothesis 1. The results show that exporters perceive higher export costs than non-exporters. This suggests that only those

**Table 3** Means, standard deviations (S.D.), and correlations

Variables	Means	SD	1	2	3	4	5	6
Explanatory variables								
1. Perceived costs	3.08	0.80						
2. Internal financial resources	3.42	0.70	0.06					
3. External financial constraint	3.31	1.07	0.16**	-0.10				
Control variables								
4. Years of operation	18.10	11.22	0.06	0.35**	-0.21**			
5. Product grade	3.24	0.67	0.18**	0.06	0.14**	0.08		
6. Size			0.07	0.45**	-0.07	0.49**	0.01	
7. Turnover			0.10	0.48**	-0.10	0.41**	-0.10*	0.69**

$N=356$ . Means and S.D. for size (number of employees) and turnover were not calculated because they were reported in categorical

\* $p<0.05$ ; \*\* $p<0.01$

**Table 4** Logistic regression

Factors	$\beta$	SE
Perceived costs	0.21*	0.14
Internal financial resources	0.21**	0.16
External financial constraint	-0.10*	0.10
Years of operation	0.04**	0.01
Product grade	0.14	0.20
Size	0.34*	0.14
Turnover	0.36***	0.09
Industry		
Nondurables	0.60	0.33
Durables	0.27	0.43
Principle		
Industrial	-0.08	0.39
Consumer	0.05	0.35
Constant	-1.13	1.02
Model $\chi^2$	98.46***	
-2 Log likelihood	380.40	
Overall predictive accuracy (%)	75.80	
Nagelkerke $R^2$	0.33	

$N=356$ . Two dummy variables were created for the three industries, with food and agricultural products omitted. Two dummy variables were created for the three product principles, with products for both industrial and consumer omitted

\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

SMEs able to establish realistic estimates of the costs of engaging in exporting can in fact become successful exporters. In other words, underestimating those costs will result in products that are unable to compete in export markets. Prior study produces the similar result that exporters consider the main barriers to internationalization to be cost-related factors (Shaw and Darroch 2004). This may be caused by the actual costs of exporting exceeding the initial expected costs. Perhaps, information acquired during the pre-export stage does not provide adequate information on costs until firms venture into it themselves. Also, the perception that export costs are high is possibly the manifestation of special managerial interest or aspirations in the internationalization readiness process, mentioned in literature (Tan et al. 2007). This factor acts as an internal stimuli determining the export decisions of firms.

The three control variables of years of operation, size, and turnover were significant in the model. The results is not surprising, as supported by prior studies that exporting firms are usually older (Minetti and Zhu 2011) and have more employees and are more profitable (Das et al. 2007). Exporting ventures are an endogenous approach based on experience accumulated throughout business years in the local market, thus making older firms more likely to start. Accordingly, this strategy requires firms to hire more workers to expand their operations (Verwaal and Donkers 2002).

## Discussion

Prior research has extensively explored both internal and external antecedents that possibly determine whether a firm ventures into exporting or not (Leonidou 1995a, b). For example, the SME Development Council of Malaysia (2010) reported that one of the perceived obstacles that inhibits SMEs in Malaysia from exporting is their inability to develop differentiated and innovative products due to lack of resources and capabilities. Subsequently, it shapes their beliefs and mindset, making them less confident. As a result, they hesitate to compete in global markets with foreign-leading innovation products.

Additionally, financial standing has also emerged as a key consideration when contemplating exports (Greenaway et al. 2007; Minetti and Zhu 2011). Substantial research has looked into financial factors behind export decisions, with either cost as a barrier or capital as a stimulus. Despite that, the combined effects on export decisions are relatively unstudied, although both factors emerge simultaneously in the internationalization path of firms. More importantly, financial influences on export decisions are a common issue in emerging markets, yet this too has been understudied. To fill this research gap, this study examines the relationships between two core financial factors, cost and capital, and the export status of SMEs using empirical data from Malaysia as an example of an export-intensive country. In particular, a financial profile-discriminating non-exporters and exporters is developed in terms of their perceived export costs, internal financial resources and external financial constraint. The objective is based on a review of the literature that these constructs are significant predictors of the export behavior of firms.

The findings show that exporters, compared with non-exporters, perceive higher internal financial resources and lower constraints from external financing. Also, they perceive larger costs than non-exporters. First, financial performance (in terms of internal liquidity and tangible assets) is positively associated with export participation. It supports a considerable number of studies that financial resources are an imperative factor effecting export participation of firms (Greenaway et al. 2007; Kaleka 2002; Minetti and Zhu 2011; Zia 2008). Often, SME exporters have been sustaining a superior position in the local market before venturing into foreign markets (Cansino et al. 2013). The competitive advantage leveraged in the domestic market helps to generate an adequate internal financial buffer to start up export operations, thus distinguishing them from non-exporters. Alternately, strong internal financial resources among exporters could be the result of their export activities. Exporting is a strategic approach that benefits firms by building networks, acquiring knowledge and technology, as well as the financial gains (Hitt et al. 2007). Therefore, only those who are financially profitable would remain exporting, while the rest would have withdrawn.

Second, limited financing from external resources is negatively associated with export participation, consistent with prior research (Batten and Hettihewa 1999; Hutchinson and Xavier 2006). Export operations require a substantial investment which often cannot be supported by internal financing. Hence, seeking external capital is essential in contemplating an export strategy, particularly among SMEs (Vos et al. 2007). Nonetheless, they are often restrained from obtaining it, which subsequently impedes their ability to export (Beck et al. 2006; Bernard and Jensen 2004; Chow and Fung 2000; Cressy and Olofsson 1997; Griffith 2011; Tannous 1997; Westhead et al. 2001).



In other words, exporters as a group are likely to secure adequate financing from external resources while non-exporters face challenges in acquiring it. From a different perspective, we can also speculate that access into external financing is easier for exporters because their financial profiles have been improving since they commenced exporting, thus reducing risks for lenders. A good reputation and strong relationships with banks facilitate access to capital (Brau 2002; Cziraky et al. 2005; Hernández-Cánovas and Martínez-Solano 2006; Peltoniemi and Vieru 2012).

Third, the expected result that (perceived) costs are higher among non-exporters, thus inhibiting them from venturing into exporting, does not emerge in the analysis. There is a quest to understand why exporters perceive export costs to be larger than non-exporters. An analytical review of the literature, to a certain extent, offers insights to justify it. Exporting is a risky strategy due to the huge financial investment required (Tannous 1997). Prior to commencement, export costs are estimated largely from information and knowledge acquired. However, unexpected costs may occur after the firm starts exporting; either as new/unforeseeable costs or an increase in the real costs. As a result, exporters would experience larger costs than what was expected by non-exporters. Nonetheless, the high costs perceived by exporters are not necessarily bad because these would lead to a realistic expectation than merely perceptual belief during the export continuation stage. Also, the finding can be interpreted by drawing on the internationalization framework (Tan et al. 2007), that managerial aspirations are internally stimulating the export behavior of firms. Accordingly, high export costs perceived among exporters reflects that these firms are more realistic, interested, and ready to commit resources to execute the strategy.

## Conclusions

SMEs contribute significantly to economic growth in many countries. Persistent efforts have been made to facilitate their operations, including internationalization (Ayob and Freixanet, 2014). Therefore, research on export factors is a worthwhile endeavor for scholars across the fields of economics, finance, international business, and management. While prior research ascertains that innovation and global orientation are dominant export determinants for SMEs (Rosli 2012), this study serves to complement it by examining financial factors of export behavior through an integrated framework of stimuli (capital) and barriers (cost). The empirical puzzle is resolved using country-specific data in Malaysia as the most conducive nation among emerging economies in providing financial assistance for businesses. Although our statistical analysis did not calculate interactions between the variables, the results suggest that export moves among SMEs in Malaysia would increase with an adequate supply of internal and external capital but would not be hindered by the costs.

The results advocate that export status of firms can be segregated according to their financial profiles, where exporters have better internal financial resources and better access to external financing. However, exporters perceived larger costs than non-exporters. It shows that acquiring external financing is imperative but difficult for SMEs. Therefore, they need a sufficient internal capital buffer, at least in the early export stages. Also, a realistic perception of costs would help prepare them for facing unexpected challenges throughout the export process.

The use of data among SMEs in Malaysia provides a novel perspective on export financing barriers and opportunities of firms in developing countries. Thus, the findings that export participation in developed countries is barely hindered by limited capital (Vos et al. 2007; Leonidou 1995a, b), seems inapplicable in emerging markets. Also, it is suggested that banks provide SMEs with more funding or ease the loan approval requirements in attempt to boost the export participation. The credit should be strategically allocated because the financial needs of non-, new, and incumbent exporters are different (Roberts and Tybout 1997). For example, financial struggle have been highlighted as a barrier at the early stage to penetrate the international markets for two successful Malaysian SMEs exporters, Noraini Cookies (Ministry of International Trade and Industry of Malaysia 2011) and Les Copaque (Harris et al. 2012). They faced difficulties in managing the high costs but were optimistic about the greater profit from the export move. Eventually, they overcame those challenges to become leading brands at the international level.

Nonetheless, several limitations warrant mention. First, export decisions may be an endogenous response to some other factors not captured in this study. Although the regression presented here has included several control variables of a firm's characteristics, it did not control directly for the effects of an entrepreneur's attributes such as the aspiration, global orientation, and risk-taking behavior as they might also contribute to the export initiation effort of SMEs (Acedo and Galán 2011; Bilkey 1978; Rosli 2012; Wiedersheim-Paul et al. 1978). Second, the measurement items are perhaps simplistic for defining financial concepts in the constructs, thus undermining the interpretation of the results. Future works should revise and refine the items in order to adopt financial terms into management study more wisely. Third, the sample is restricted to a single country, Malaysia. Generalizing the findings to other developing countries should be done with care because the structure of financial and legal institutions is varied between countries and that affects the financial situation at a firm level (Beck et al. 2006; Minetti and Zhu 2011; Thampy 2010). Country-level data from organizations such as the World Bank and World Trade Organization (WTO) could help to resolve this concern. Fourth, although pull and push financial factors are integrated into the model, the results of this study do not demonstrate the weightage of each factor, thus preventing us from identifying which factor is more dominant over the others. Prior studies, however, suggest that intangible resources of entrepreneurial attributes are more potent competencies than the physical assets such as financial capability (Hitt et al. 2007). Also, since no causality is demonstrated, the variables cannot be determined as determinants or outcomes, thus calling for future research to employ a longitudinal methodology or to collect data from firms that withdraw from exporting.

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