

2019-01

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<http://hdl.handle.net/10026.1/11098>

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10.1002/tie.21972

Thunderbird International Business Review

Wiley

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# **Internal and External Determinants of Export Performance: Insights from Algeria**

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## **Abstract**

The internationalisation of small and medium enterprises (SMEs) has been the focus of numerous studies. However, while the attention has thus far been on SMEs operating in developed countries, firms evolving in a developing context, including Africa, have been largely neglected. To address this, and drawing on a dual resources-based and network-based view, this study simultaneously investigates the importance of internal and external resources for firms' export performance and regularity in the context of North African SMEs. Using a sample of Algerian exporters, the study reveals the superiority of discrete resources for boosting export performance and export regularity. These findings provide directions to Algerian SME managers and policy makers as to important factors driving the internationalization process in the developing Algerian context.

**Key Words:** Export Performance; Export Regularity; Resources and Capabilities; Algeria.

## **1. Introduction**

Notwithstanding the widely acknowledged benefits of exporting for both firms' and nations' growth (Wagner, 2013; Pattnayak and Thangavelu, 2014), African Small and Medium Enterprises (SMEs) are still reluctant to enter international markets, and when they do, they often struggle to achieve and maintain satisfactory performance. In fact, exporting remains a challenging activity hampered by inhibitors typically caused by SMEs' limited resources (Brouthers et al., 2015; Villar et al., 2014).

To improve understanding of this problem, several studies investigated the resource-factors improving SMEs' export performance (Brush et al., 2002; Dhanaraj and Beamish, 2003; Belesca-Spasova et al., 2012; Díez-Vial and Fernández-Olmos, 2013; Denicolai et al., 2014; Pickernell et al., 2016). The majority of these empirical studies have been conducted in developed countries, and as a result, resources driving SMEs' international competitiveness in a developing setting remain unclear (Matanda et al., 2016). This is particularly true when it comes to African SMEs' for which a lack of empirical research is often underlined (Ibeh et al., 2012). Consequently, to inform policy, the existing export literature tends to generalise findings obtained from developed contexts. However, the relevance of such findings for firms operating in African nations could be questioned (Boso et al., 2012). In particular, African firms' internationalisation is prone to be influenced by a set of unique factors, which is due to significant institutional and environmental differences across the two contexts (Robson and Freel, 2008). Such differences are likely to affect the resource needs for international expansion.

To address this issue, this study adopts a comprehensive approach identifying key resource drivers boosting international performance, using evidence from a widely neglected North African country, namely Algeria. Drawing on a sound theoretical underpinning combining

the Resource Based View (RBV) and the Network approach, the study develops and tests an integrated model in which the influences of both internal and external resources on export performance and regularity are simultaneously examined. By empirically testing this model using data from Algerian SME exporters, the study aims at contributing to this special issue by fulfilling several gaps in the extant literature.

First, the empirical literature examining the influence of firms' resources on export performance has thus far been fragmented and inconsistent (Zou and Stan, 1998; Sousa et al., 2008). With few exceptions (e.g. Dhanaraj and Beamish, 2003; Beleska-Spasova et al., 2012), most prior studies focus on a single resource or a group of particular resources (such as technology, innovation, marketing resources...etc.). Consequently, the majority of the studied resource-factors emerged as equally important for export performance and thus no superiority was distinguished or prioritisation suggested (Beleska-Spasova et al., 2012). In a context of resource-constrained SMEs, operating in an unfavourable developing setting, the identification of key resources to prioritise and focus on is crucial to increase SMEs' and public assistance efficiencies. Thus, developing and testing a comprehensive model evaluating several types of resources simultaneously provides a valid contribution.

Second, the literature review has reflected the superiority in number of studies conducted in developed countries in comparison to those undertaken in developing (and emerging) economies (Boso et al., 2012; Matanda et al., 2016). Therefore, by focusing on a North African nation, this study enriches our understanding of export performance in the context of African economies. Algeria constitutes part of the Maghreb area and is located in a strategic geographical position bridging Africa, Europe and the Middle-East. The export potential of the SMEs located in this area is significant and the consequence for the development of these nations considerable. Yet, the drivers of export performance in those countries remain largely

misunderstood and unclear compared to other countries, not only western developed economies but also other African countries.

Third, the empirical export literature also appears to have overlooked the antecedents of firms' export survival and regularity (Cadot et al., 2014; Deng et al., 2014; Fu and Wu, 2014). Such a dimension is particularly relevant for developing and African countries. Clear evidence has demonstrated that regular exporters play a greater role in increasing economic development than sporadic ones (Alvarez, 2007; Cadot et al., 2013). Sporadic exports do not meet the governments' target to boost export growth. Therefore, the present study included the regularity dimension as an additional internationalisation outcome.

This paper is structured as follows: the following section presents the North African context of the study, followed by an overview of the conceptual framework, the research model and hypotheses. The paper proceeds with an outline of the research methods and data collection. Finally, the results, discussion, conclusion and implications for both practice and theory are drawn.

## **2. The Research Context: Algeria**

The Algerian context was deemed suitable, as there is an urgent need for practical assistance to boost SMEs' international activities and diversify the country's exports. Algeria is considered as the third most important economy in the Middle-Eastern and North-African (MENA) area (World Bank, 2017). However, Algeria is also facing great challenges in terms of economic diversification. Being a typical oil-rich country, oil and gas revenues constitute the mainstream of its incomes (Global Insight, 2014). Algeria's exports remain amongst the least diversified in the MENA region. The oil and gas exports represents over 93% of the total export, with a mere 6.16% dedicated to non-oil exports (from both SMEs and large firms). Table 1 identifies the breakdown of these figures and the main export regions for

Algerian firms. In terms of growth, the country's non-oil exports declined by 9.55% compared to 2015, while in 2015, a decline by 20.1% from 2014 was recorded (Algerian Customs, 2017).

Table 1: Overview of Algerian exports

| Algerian exports           | %     | Regions                      | %     |
|----------------------------|-------|------------------------------|-------|
| Oil and gas                | 93.84 | EU (Italy, Spain and France) | 57.95 |
| Semi-manufactured Products | 4.5   | Non-EU OECD countries        | 21.64 |
| Food Related products      | 1.13  | Asia                         | 8.07  |
| Raw products               | 0.29  | South America                | 5.81  |
| Industrial Equipment       | 0.18  | Maghreb                      | 4.74  |
| Other products             | 0.06  | Middle East (Arab countries) | 1.33  |
|                            |       | Africa                       | 0.18  |

Source: Algerian Customs (2017)

Against this backdrop, and as a response to calls by the World Bank (2017) to boost non-oil exports, the Algerian government has been investing in export promotion programmes to encourage SMEs to enter and be competitive in export markets (Algerie Press Service, 2016). In particular, an export development scheme including the establishment of several organisations in charge of assisting Algerian SMEs in their internationalisation (CACI website) was implemented. This focused predominantly on SMEs as they constitute over 94% of the total firm population and typically require external assistance. The organisations involved in the scheme comprised bodies such as the Algerian Agency for the Promotion of Foreign Trade (ALGEX), the Algerian Company of Export Guarantees (CAGEX), the Office of Promotion of Foreign Trade (PROMEX) and the Algerian Chamber of Commerce and Industry (CACI) (OECD/The European Commission/EFT, 2014). The aims of the export development scheme were to provide resource constrained firms with (1) foreign market intelligence, (2) specialised trainings in exporting, (3) assistance with foreign promotion campaigns, (4) export consultancy, (5) sponsored trade missions and (6) export financing (Algerie Conseil Export, 2016).

However, despite those efforts, export assistance remains inefficient and ineffective in boosting exporters. Recent estimations record a number not exceeding 520 exporters (The Algerian Chamber of Commerce Database, 2016). In this respect, an EU report highlighted that institutional support available for Algerian SMEs fails to match firms' needs (Nancy et al., 2009). Moreover, the International Monetary Fund (IMF) advised the government to adopt a more customized export promotion strategy in order to meet those needs. The IMF called for more targeted and adjustable export support policies to develop the export sector (IMF, 2011). Similarly, an OECD/The European Commission/EFT (2014) report highlighted the inadequate business support services available and urged providers to offer personalised and tailored services.

Following these suggestions, one could argue that to enable customised and effective assistance, export promotion organisations need to be aware of the main factors driving export performance. Since export promotion programmes are perceived as a resource supplement (Leonidou et al., 2011), it could be argued that empirical studies investigating the key resources to firms' export performance and regularity are highly relevant. However, according to Ibeh et al.'s (2012) recent review on African internationalisation literature, only two studies looking at North African firms were published between 1995 and 2011 (Khemakham, 2010 for Tunisia and Fafchamp et al., 2008 for Morocco). Such a gap warrants a need to investigate this issue further in the Algerian context. This is particularly relevant, with the decline of oil prices (2015-2016), the Algerian government has implemented austerity measures where costs related to all forms of public assistance including export promotion funds are considerably reduced. As a result, export promotion bodies are required to increase their efficiency when assisting SMEs in their internationalisation activities.

### **3. Conceptual Framework: A Dual Perspective**

Traditional explanations of export behaviour proposed that internationalisation occurs in stages (Bilkey and Tesar, 1977; Johanson and Vahlne, 1977). This approach suggests that firms, especially those experiencing resource constraints such as SMEs, internationalise gradually, first responding to unsolicited orders, then experimentally exporting in physically close markets to become regular exporters, thereafter entering geographically distant markets or employing higher entry modes. Such expansions are typically determined by firms' resources including experiential knowledge and networks (Johanson and Vahlne, 2009).

Subsequently, the emergence of the international entrepreneurship perspective placed a greater emphasis on the role played by firms' resources and capabilities in driving international activities (Brush et al., 2002). Several studies have acknowledged the lack of both internal and external resources amongst the main reasons hindering firms' performance in foreign markets (Tesfom and Lutz, 2006; Villar et al., 2014; Brouthers et al., 2015). These resource limitations can be more constraining to international performance when firms are exposed to sunk costs related to foreign markets entry (Roberts and Tybout, 1997; Mattoussi and Ayadi, 2017). However, sunk costs can also have a different influence when it comes to regularity in exporting. According to the sunk costs approach, the existence of substantial sunk costs could be a triggering factor of export regularity, even when international performance is not satisfying. Existing SME exporters in emerging countries tend to continue exporting under adverse foreign market conditions to avoid the costs of re-establishing themselves in export markets when favourable market conditions emerge (Das et al., 2007). This potentially underlies the existence of different antecedents for performance and regularity.



Drawing on two theoretical bases for developing and testing export models, namely: the RBV (Barney, 2001), which posits that firms' international competitive advantage is driven by internal assets (Dhanaraj and Beamish, 2003), together with the network approach (Johanson and Vahlne 2009), which stresses the importance of (external) relational resources in shaping firms' internationalisation (Brush et al. 2002; Wright et al., 2007). This study proposes a resource-based model integrating internal and external resources to explain firms' superior and sustained performance in foreign markets. External resources in the form of networks can at times offset the lack of internal resources (Johanson & Mattsson, 1988; Chetty and Holm, 2000). This is particularly important in SMEs from emerging markets which are vulnerable to resources constraints (Zhu et al. 2006; Musteen et al 2014), and often place larger emphasis on combining internal and external assets.

The proposed model extends the extant literature in two ways. First, it integrates internal and external resources, to explain SMEs' export behaviour, and second, it tests the relative importance of these resources in driving and sustaining international performance. Commencing with the internal resources and capabilities, the next sections review previous studies outlining the influence of SMEs' resources and capabilities on export performance. It is noteworthy that given the context of the present study and the scarce evidence from developing contexts, studies conducted in both developed and developing countries are reviewed. This helps to outline the differences across the two areas.

### **3.1. Internal Resources and Capabilities and Export Performance: A Resource Based View**

Based on the RBV, firms' internal resources constitute the set of tangible and intangible assets and capabilities controllable by firms. To drive performance, these resources have to be valuable, unique, rare, inimitable and difficult to substitute (Barney, 1991). In an

international context, previous studies argued that such resources are typically related to the owner/manager and the organisation (Brush et al., 2002; Wilkinson and Brouthers, 2006). While classifying the firm resources can be done in various ways, in this study, the resource bundles have been first divided into tangible and intangible assets (Man, 2010). The tangible assets included firms' technological resources whereas the intangible assets included the managers' knowledge and attitudes towards export activities (thereafter managerial resources) as well as the firms' innovative and marketing capabilities. The classification of these four sets was based on Kaleka's (2002) and Hall's (1992) distinction between resources (illustrating what the firm has) and capabilities (reflecting what the firm does), and adapted from Beleska-Spasova et al's (2012) categorisation of firms' critical resource determinants of export performance. Grouping these resources addresses Zou and Stan's (1998) and Sousa et al's (2008) calls for more comprehensive approaches when studying the factors affecting export performance. The following sub-sections review previous evidence on the influence of such resource sets on firms' export performance.

#### *Managerial Resources and Export Performance*

In the export literature, the role of the managerial resources in enhancing firms' export performance has been well acknowledged (Sousa et al., 2008). Unlike large firms, SMEs' international activities are considerably influenced by the manager's knowledge and attitudes towards exporting (Miesenbock, 1988). This goes in line with the gradual approach (Johanson and Vahlne, 1977) where the manager's perceived psychic distance (often influenced by knowledge and attitudes) plays a significant role in shaping the internationalisation of the firm.

A plethora of previous studies acknowledge the lack of export knowledge amongst the main obstacles hindering firms' performance in foreign markets (Suarez-Ortega, 2003; Altıntaş et

al., 2007; Pinho and Martins, 2010). In an often uncertain and ambiguous foreign market, possessing relevant export knowledge would assist firm managers in their decision making process (Seringhaus, 1987). It also allows them to react more effectively to export obstacles (Nemkova et al., 2012; Nalcaci and Yagci, 2014). Similarly, language abilities were found to have a positive influence on export performance (Leonidou, 1998; Stoian et al., 2011). Such a skill would allow managers to establish useful contacts and avoid communication problems (Leonidou et al., 1998; Nemkova et al., 2012).

Favourable perceptions and attitudes toward exporting are another prerequisite for SMEs' export performance (Naidu and Prasad, 1994; Zou and Stan, 1998). Positive perceptions would increase managers' commitment and resource allocations towards export activities, which in turn would improve performance (Papadopoulos and Martin, 2010). Likewise, when experienced managers appreciate and understand the value of exporting, the firm is more likely to be a regular exporter (Naidu and Prasad, 1994). Contrastingly, a study on Tunisian firms reported no significant influence of managerial characteristics on firms' choice of direct exporting (Khemakhen, 2010). However, given that most studies reported a significant impact of such attributes, the first hypothesis of this study proposes that:

**Hypothesis 1:** Managerial resources of SMEs in developing countries are of high importance for their (a) export performance and (b) export regularity.

#### *Technological Resources and Export Performance*

Technological resources in the form of unique and advanced technology (Wagner and McCombs, 1995) and/or owned patents (Moini, 1995) can constitute an international competitive advantage. However, mixed evidence on their influence on export performance has been reported in the literature (Lefebvre et al., 1998). In fact, while a positive contribution of technological resources was reported (Piercy et al. 1998), in the short run,

technology acquisition could engender sunk costs (Mattoussi and Ayadi, 2017), which would negatively affect performance (Knight, 2001). Particularly for developing countries such as China where a low cost is generally a competitive advantage, technology could negatively affect international performance (Zhao and Zou, 2002). Similarly, Alvarez (2007) showed that, due to cost-related reasons, technological factors do not appear to be significant precursors for firms' export regularity. Based on such evidence, the second hypothesis is presented:

**Hypothesis 2:** Technological resources of SMEs in developing countries are of low importance for their (a) export performance and (b) export regularity.

#### *Innovative Capabilities and Export Performance*

Developing new products and processes could earn firms several benefits including an enhanced productivity and increased performance. In an international context, several studies reported a positive contribution of innovation (measured through R&D expenditures) to improving export performance (Zahra et al., 2000; Robson and Freel, 2008; Singh, 2009; Díez-Vial and Fernández-Olmos, 2013). However, a few studies conducted in developing countries have brought contrasting findings. While evidence from Malaysia could not prove a significant link between the two (Man, 2010), a study from Ghana and Bosnia Herzegovina revealed that innovation was only important for export performance when firms are operating in highly competitive environments and when customers' requirements are more dynamic (Boso et al., 2013). Similarly, a Chinese study reported that innovation only increases exporters' survival when these are highly profitable (Deng et al., 2014). Particularly for SMEs operating in developing countries, the high sunk costs linked to innovation could easily outweigh the benefits arising from such activities, a phenomenon known as the "liability of innovativeness" (Deng et al., 2014). Thus, the following hypothesis is proposed:

**Hypothesis 3:** Innovative capabilities of SMEs in developing countries are of low importance for their (a) export performance and (b) export regularity.

#### *Marketing Capabilities and Export Performance*

Drawing on the RBV, marketing capabilities in the form of the marketing mix processes could be rare, valuable, non-substitutable, and inimitable sources of an international competitive advantage that can lead to superior firm performance (Vorhies and Morgan, 2005; Morgan et al., 2012). In the export literature, there has been a wide agreement that the possession of distinctive marketing capabilities considerably enhances export performance in various ways. Marketing capabilities in general could be a source of low-cost and branding advantages that would confer the firm a competitive advantage over its competitors (Zou et al., 2003). Competencies in the form of informational capabilities (Ibeh and Young, 2001; Kaleka, 2012), pricing capabilities (Obadia and Stottinger, 2014), promotion (Styles and Ambler, 1994; Díez-Vial and Fernández-Olmos, 2013) and advertising capabilities (Serra et al., 2012) were all found to have a positive influence on export performance. Adapting marketing strategies to foreign markets' requirements allows firms to satisfy customer requirements in export markets (Azar and Drogendijk, 2014). Finally, planning activities as part of the marketing strategy was also revealed to be a significant precursor to export performance. Planning often motivates the firm to conduct market research and allocate necessary resources to adapt their product/service, which could lead to an increased export performance (Knight, 2001). Thus, it could also be argued that, satisfying foreign customers' requirements, allocating sufficient resources to exporting and being responsive to pricing changes would also lead the firm to export regularly. Hence, the following hypothesis is proposed:

**Hypothesis 4:** Marketing capabilities of SMEs in developing countries are of high importance for their (a) export performance and (b) export regularity.

### **3.2. External Resources and Export Performance: A Network Based View**

Literature on export behaviour has indicated that financial constraints faced by firms affect the probability that they will start exporting (Manova 2006, Bellone et al. 2010). One of the reasons why access to financing is so important is the sunk costs associated with investments into products customisation, marketing, distribution and logistics (Roberts and Tybout, 1997). In an SME context often characterised by limited financial resources, and particularly in an emerging economy characterised by substantial credit constraints, such as Algeria, collaborative activities constitute an attractive alternative for SMEs to access external resources.

Inter-firm collaboration is a common practice amongst SMEs. Such firms use both formal and informal relationships (Coviello and Munro, 1997) with other stakeholders such as customers, distributors, suppliers and competitors to access otherwise unavailable resources. Known as the “network perspective”, this approach argues that firms’ strategic decisions are influenced by external relationships. In an international context, the network perspective has also been widely applied. Johanson and Mattsson (1988) argued that as the firm internationalises, its relationships with other network members become more important and of greater value. Such relationships generally assist the firm in gaining access to additional resources and markets which enhance their internationalisation process.

Assets gained through firms’ external relationships are referred to as “relational resources”. Lavie (2006) defines relational resources as the set of resources that could emerge from the SMEs’ relationships and connections with peer firms and business partners. In this study, these are divided into local relational resources and foreign relational resources. While the former are related to resources gained through relationships with peer firms operating locally,

the latter reflects the resources gained through relationships with foreign buyers (importers). These resources could be in the form of market knowledge, skills, expertise and equipment.

#### *Local Relational Resources*

While most previous studies concerned with the role of networks in internationalization tend to focus on international networks, domestic networks can also play a positive role in supporting SME internationalization (Manolova et al., 2010). This may be particularly valid for SMEs from emerging economies (Nowiński and Rialp, 2013). SMEs' cooperative activities with external parties evolving in the local market are generally a valuable source of external assets (Wilkinson et al., 2000). These networks act as a resource supplement for SMEs' internal resources. They help reduce uncertainties and ambiguities in export markets through cooperation. As a result, researchers have argued that firms should be looked at as a part of a network through which a pool of resources could be accessible (Wright et al., 2007). In an international context, and despite the scarce empirical evidence (Boehe, 2013), it is agreed that firms that are part of industrial networks and business groups benefit from foreign knowledge exchange which increases their export performance (Singh, 2009; Freeman et al., 2012; He and Wei, 2013; Felzensztein et al., 2015). As Manolova et al. (2010) argue, inter-organizational cooperation with other domestic firms, particularly if established in the early phase of their operations, supports their internationalization. Similarly, being part of a local network increases firm visibility and accessibility to international markets and foreign clients (Boehe, 2013). Close cooperation with local suppliers improves the quality of the inputs, which would in turn enhance the quality of the product and boost international competitiveness (Wilkinson et al., 2000). In Africa, relational resources gained through formal and informal relationships constitute an important means of support for firms' internationalisation (Ibeh et al., 2012). As for regularity, previous evidence suggests that concentration of exporting firms has a significant and positive influence on the probability of

becoming permanent exporters (Alvarez, 2007). Based on such findings, the following hypothesis is proposed:

**Hypothesis 5:** Local relational resources of SMEs from developing countries are of high importance for their (a) export performance and (b) export regularity.

#### *Foreign Relational Resources*

Relational resources gained through the firms' connections and collaboration with their foreign partners (importers) are important determinants of export performance (Ling-Yee, 2004; Lages et al., 2005; Fafchamp et al., 2008; Ural, 2009; Leonidou et al., 2014; Kim and Hemmert, 2016; Haddoud et al., 2017). Evidence from the UK showed that compared to local networks, foreign relationships have a greater influence on SMEs' export performance (Haddoud et al., 2017). Foreign networks are particularly useful in creating foreign market knowledge and increasing export intensity (Ling-Yee, 2004). Uncertainties associated with export markets are potentially decreased when exporters and importers exchange strategic information regarding foreign markets (Ural, 2009). A close collaboration with importers could be perceived as a source of intelligence and cross-cultural knowledge that provides exporters with a competitive advantage (Kim and Hemmert, 2016). It could also create a team spirit environment which helps exporters overcoming challenges and obstacles associated with internationalisation, reducing costs and improving performance (Zain and Imm Ng, 2006; Leonidou et al., 2014). Specifically, through foreign relationships, firms may benefit from established distribution channels (Coviello and Munro, 1997), access to additional potential buyers (Bjorkman and Kock, 1995), and opportunities to build credibility and trust in foreign markets (Chetty and Patterson, 2002; Zain and Imm Ng, 2006). This phenomenon is particularly relevant to African countries where colonial bonds usually affect firms' export destinations. Evidence from Morocco found that international networks (with ex-colonies) increases export performance (Fafchamp et al., 2008). Similarly, evidence from Uganda



(Bakunda, 2004), Nigeria (Ibeh, 2001) and Ethiopia (Belwal and Chala, 2008) showed that foreign collaboration played an important role in the internationalisation process of SMEs.

Furthermore, international networks can also boost export regularity. In accordance with the Uppsala view of internationalisation (Johanson and Vahlne, 1977), previous evidence highlighted that unlike new exporters who typically require objective knowledge to start with, regular and experienced exporters need experiential knowledge to sustain their activities abroad (Crick, 1995). This type of foreign knowledge is likely to be obtained through regular collaboration with foreign partners. Similarly, the revisited Uppsala view argues that collaboration and commitment to network partners is likely to result in trust-building and learning which in turn leads to identification of new foreign opportunities and hence sustained international business (Johanson and Vahlne, 2009). Thus, the following hypothesis is proposed:

**Hypothesis 6:** Foreign relational resources of SMEs from developing countries are of high importance for their (a) export performance and (b) export regularity.

## **4. Methods**

### **4.1. Data Collection**

The study surveyed exporting firms in the *manufacturing* sector, typically employing less than 500 employees, located in different regions of Algeria. Such a threshold was utilised to illustrate firms that are often resource-constrained. This threshold was followed by several previous export studies to distinguish small and medium firms from their large counterparts

(Dhanaraj and Beamish, 2003; Wilkinson and Brouthers, 2006)<sup>1</sup>. The sampling frame for this study was compiled from the ALGEX database. ALGEX is the main export promotion organisation in Algeria and is affiliated with the Ministry of Commerce (Nancy et al., 2009). Both online and face-to-face (mainly in trade fairs) collection methods were utilised to distribute the questionnaire. The unit of analysis is the SME and the owner/manager or the export manager (if existing) were the main targets as these were deemed to be the most suitable source of information. The researchers collected 103 valid questionnaires. While this number appears to be low, it is important to highlight that the estimated number of Algerian exporting SMEs is approximately 520 companies (The Algerian Chamber of Commerce Database, 2016). Hence, we can argue our sample represents approximately 20% of the entire population of exporting SMEs in Algeria, which can be considered as highly representative. Full details of the firms' characteristics are provided in Table 2.

Table 2: Firms' Characteristics

| <b>Characteristics</b>                          | <b>%</b> | <b>Characteristics</b>   | <b>%</b> |
|---|----------|--------------------------|----------|
| <b>Size</b>                                     |          | <b>Export Experience</b> |          |
| Less than 10                                    | 12.0     | Less than 2 Years        | 4.5      |
| 10 - 50   | 21.7     | 2 – 5 Years              | 24.7     |
| 51 - 250  | 35.9     | 6 – 10 Years             | 48.3     |
| Over 250  | 30.4     | 11 – 20 Years            | 12.4     |
| <b>Age</b>                                      |          | Over 20 Years            | 10.1     |
| Less than 2 Years                               | 5.6      | <b>Export Sales</b>      |          |
| 2 - 10 Years                                    | 22.5     | Less than 10%            | 51.9     |
| 11 - 25 Years                                   | 37.1     | 10 – 25%                 | 12.3     |
| 26 -50 Years                                    | 20.2     | 26 – 50%                 | 3.7      |
| Over 50 Years                                   | 14.6     | 51 – 75%                 | 4.9      |
| <b>Ownership</b>                                |          | Over 75%                 | 27.2     |
| Sole Proprietorship                             | 21.7     | <b>Export Regularity</b> |          |
| Family Ownership                                | 51.1     | Regular                  | 41.1     |
| Partnership                                     | 12.0     | Sporadic                 | 58.9     |
| <b>Sector</b>                                   |          |                          | <b>%</b> |
| Agriculture, forestry and fishing               |          |                          | 15.7     |
| Food, beverage and tobacco                      |          |                          | 45.7     |
| Petroleum, chemical, plastic and rubber product |          |                          | 12.9     |
| Metal products                                  |          |                          | 4.3      |

<sup>1</sup> A t-test comparing mean scores of all the constructs involved in the proposed model has revealed no major differences between SMEs employing less than 250 employees and SMEs with more than 250 and less than 500 employees.

|                                    |     |
|------------------------------------|-----|
| Electrical and electronic products | 7.1 |
| Wood and paper product             | 4.3 |
| Furniture                          | 2.9 |
| Other manufacturing Products       | 7.1 |

Source: Valid percentages computed using SPSS.

## 4.2. Variables' Operationalization

### *Firms' Resources*

Based on the literature review, a comprehensive list of potential resources cited in the export literature as determinants of export performance was developed. As mentioned earlier, the current study considers both resources and capabilities and follows the RBV conceptualisation, which includes both concepts under the umbrella of firms' resources. Using a voting technique, a brainstorming process that assists the evaluation and ranking of a list of factors (Al-Assaf and Schmele, 1993), the study captured the most cited resources reported in the export literature. Subsequently, based on previous studies adopting a similar approach to resource conceptualisation (Leonidou et al., 2011; Beleska-Spasova, 2012), the study narrowed down the extensive list of resource-factors to 12 resources grouped under five categories; namely: technological resources, innovative capabilities, managerial resources, marketing capabilities and relational resources.

### *Export Performance*

Due to the reluctance of SMEs to disclose financial data (Wilkinson and Brouthers, 2006), the study utilised a perception-based measure known as the "EXPERF" composite measure, developed by Zou et al. (1998). This indicator combines both objective and subjective measures and includes three performance dimensions, namely: financial, strategic and satisfaction measures, each assessed using a five-point scale ranging from "strongly agree" to "strongly disagree" (Beleska-Spasova et al., 2012).

### *Export Regularity*

Unlike export performance, minimal attention was dedicated to study export survival (Deng et al., 2014; Fu and Wu, 2014). Such an aspect of export activity would be particularly important to developing countries as previous evidence has clearly shown that regular exporters are generally more productive and innovative than sporadic ones (Alvarez, 2007). There have been calls from previous researchers for more research on export survival (Deng et al., 2014). To address this, the present study includes the export regularity dimension as a proxy of export success. This was operationalised using a single item measure by asking firms about their regularity in exporting using five-point Likert scales adapted from Gertner et al. (2007).

### *Control Variables*

To minimise issues related to omitted variables problems the study controlled for several factors deemed to have an influence on firms' export performance and regularity (Papies et al., 2016). These variables were firm size (Serra et al., 2012), firm age (Srinivasan and Archana, 2011), proportion of foreign sales (Sousa et al., 2008), export experience (Makri et al., 2017), firm ownership (Fernández and Nieto, 2006), access to financial support and management type (Dosoglu-Guner, 2001).

### *Measurement Biases*

To reduce measurement errors, reversed items were included in the questionnaire prior to the data collection. Additionally, post-hoc tests were also conducted. In these, both non-response and common methods biases were checked. While the former was assessed using Armstrong and Overton's (1977) extrapolation method (Kaleka, 2012), the latter was checked through Harman's one-factor (Lings et al., 2014). The single factor accounted for 19.83% of the total

variance. Additionally, a novel method developed specifically for PLS models by Liang et al. (2007) was also applied as a more robust technique to check for common method bias issues (Oh et al., 2012). Here, the study runs a PLS model including a common method factor in which all of the constructs' indicators are present. Then, each indicator's variances that were explained by the principal construct and by the common method factor were compared. The results showed that the average variance explained by the indicators was 0.700, while the average method-based variance was 0.001. Most of the method factor loadings were non-significant. This suggests that common method bias is unlikely to cause a serious issue to the validity of the results (Oh et al., 2012). Therefore, the results indicate no major signs of non-response or common method biases.

## **5. Results**

To test the hypotheses, a non-linear regression-based Partial Least Squares Structural Equation Modelling (PLS-SEM) is utilised. The software employed was WarpPLS 6.0 (Kock, 2017). The choice of variance-based over covariance-based techniques could be justified for the following reasons: first, the purpose of this study is to assess the resource-factors predicting variances of firms' export performance and regularity. It is acknowledged that PLS-SEM is superior in predicting variables' variances (Henseler et al., 2009; Hair et al., 2016). Second, both formative and reflective variables are included in the proposed model and third, given the small population of exporting SMEs in Algeria, the sample size is relatively small.

### **5.1. Measurement Model Validation**

To conceptualise the resource factors, a second order conceptualisation (reflective-formative) was applied. To test the validity of such measures, a two-step approach was followed in which measurements at both first order and second order were assessed sequentially. The

two-stage approach was used as the main interest of the researchers is the focal factor (the type of resources) rather than the sub-factors (Becker et al., 2012).

At first order level, a confirmatory factor analysis following the PLS approach was conducted to check the individual reliability of all the indicators using their loadings (see Appendix A). Further, constructs' internal reliability and convergent validity were both examined through the composite reliability (CR), Cronbach's Alpha coefficient and the Average Variance Extracted (AVE). Table 3 shows that all three indicators posit acceptable values exceeding the cut-off thresholds, namely 0.7 and 0.5 for reliability<sup>2</sup> and validity respectively (Henseler et al., 2009; Schmiedel et al., 2014).

Table 3: CR, Cronbach's Alpha AVE and VIF for 1st order constructs.

| <b>1<sup>st</sup> Order variables</b>                  | <b>CR</b> | <b>Cronbach's <math>\alpha</math></b> | <b>AVE</b> | <b>VIF</b> |
|--|-----------|---------------------------------------|------------|------------|
| Innovation   | 0.892     | 0.837                                 | 0.674      | 3.262      |
| Technology   | 0.809     | 0.684                                 | 0.516      | 2.815      |
| Planning Capabilities                                  | 0.923     | 0.888                                 | 0.750      | 3.519      |
| Informational Capabilities                             | 0.932     | 0.907                                 | 0.733      | 3.607      |
| Pricing Capabilities                                   | 0.906     | 0.862                                 | 0.708      | 2.813      |
| Advertising Capabilities                               | 0.971     | 0.960                                 | 0.894      | 2.803      |
| Managers' Objective Knowledge                          | 0.909     | 0.865                                 | 0.713      | 2.510      |
| Managers' Experiential Knowledge                       | 0.823     | 0.712                                 | 0.539      | 2.617      |
| Managers' perception                                   | 0.826     | 0.681                                 | 0.620      | 1.330      |
| Information Sharing with local businesses              | 0.902     | 0.836                                 | 0.754      | 1.869      |
| Communication Quality with local businesses            | 0.912     | 0.871                                 | 0.722      | 2.800      |
| Long-term orientation with local businesses            | 0.928     | 0.896                                 | 0.764      | 3.144      |
| Satisfaction with relationship with local businesses   | 0.837     | 0.707                                 | 0.633      | 2.271      |
| Information Sharing with foreign businesses            | 0.900     | 0.833                                 | 0.749      | 1.676      |
| Communication Quality with foreign businesses          | 0.927     | 0.894                                 | 0.760      | 2.494      |
| Long-term orientation with foreign businesses          | 0.931     | 0.899                                 | 0.771      | 3.324      |
| Satisfaction with relationship with foreign businesses | 0.833     | 0.699                                 | 0.625      | 1.857      |
| Financial Export Performance                           | 0.864     | 0.763                                 | 0.680      | 3.841      |
| Strategic Export Performance                           | 0.944     | 0.910                                 | 0.848      | 4.711      |
| Satisfaction with Export Performance                   | 0.917     | 0.863                                 | 0.786      | 3.107      |
| Export Regularity                                      | 1.000     | 1.000                                 | 1.000      | 2.285      |
| <i>Control Variables</i>                               |           |                                       |            |            |
| Firms' Size  | 1.000     | 1.000                                 | 1.000      | 1.934      |
| Firms' Age   | 1.000     | 1.000                                 | 1.000      | 1.405      |
| Firms' Export Experience                               | 1.000     | 1.000                                 | 1.000      | 1.666      |

<sup>2</sup> Some Cronbach's alpha values were slightly less than the 0.7 threshold. This was due to the sensitivity of the Cronbach's alpha to the low number of items. In such cases, the reliability can still be established via the composite reliability values (Hair et al., 2016).

|                             |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|
| Access to financial support | 0.862 | 0.758 | 0.676 | 1.350 |
| Ownership                   | 1.000 | 1.000 | 1.000 | 1.502 |
| Management Type             | 1.000 | 1.000 | 1.000 | 1.310 |
| Proportion of Int. Sales    | 1.000 | 1.000 | 1.000 | 1.875 |

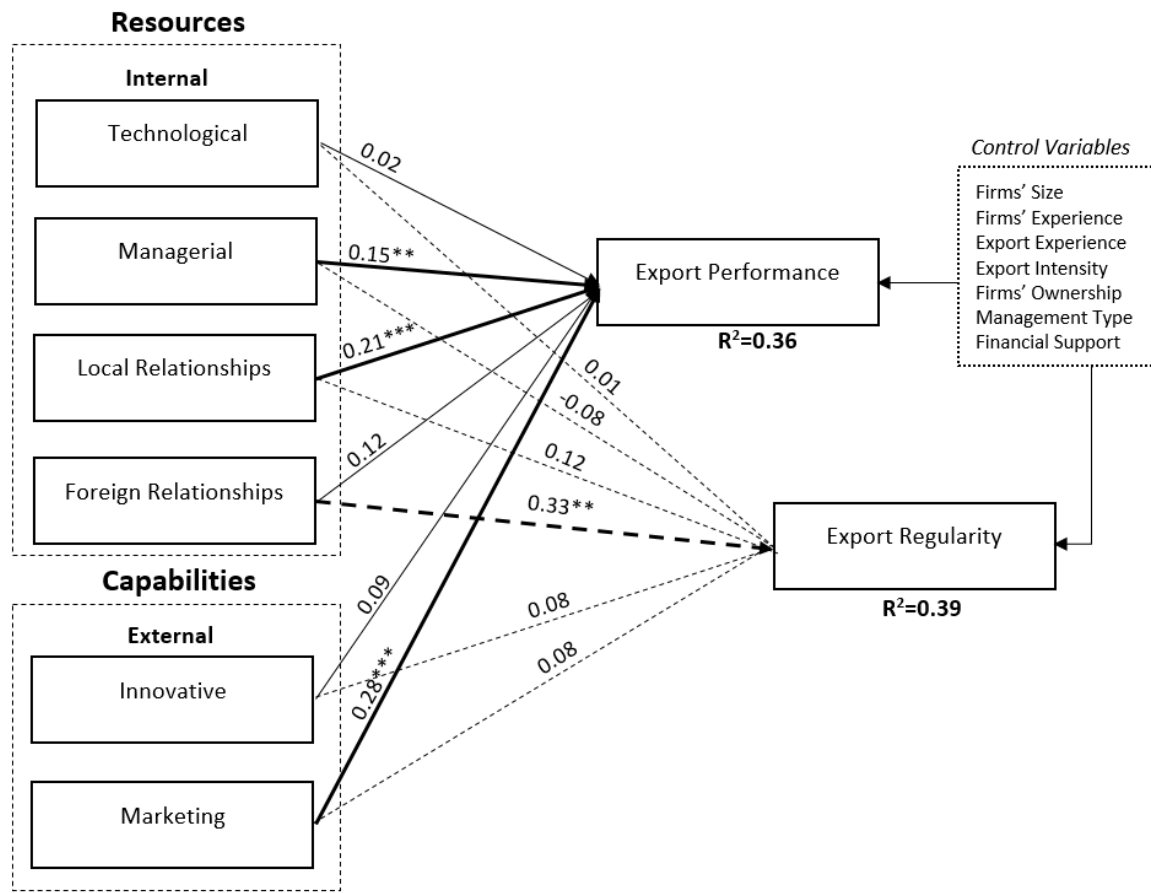
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Discriminant validity was assessed through square roots of AVE. The square root of each construct's AVE was higher than the correlations with the other constructs, suggesting good discriminant validity (Fornell and Larcker, 1981). Finally, multicollinearity issues were examined through the Variance Inflation Factor (VIF). VIF values for each construct were less than the threshold 5, suggesting no major collinearity issues (see Table 3). The next step involves the examination of the second order formative variables. These were validated through the assessment of the indicators' weights and the VIFs (Hair et al., 2011). For both models, all indicators were significant at 5%, while all VIFs were less than five, implying that the second order formative measures have good validity with no major issue of collinearity.

## 5.2. The Structural Model

Figure 1 presents the path coefficients ( $\beta$ ), the  $p$  values and the  $R^2$  values of the relationships hypothesized in this study.

Figure 1: Structural Model



\*\*\* $p \leq 0.01$ , \*\* $p \leq 0.05$

This study has tested six hypotheses predicting the influence of firms' resources and capabilities on export performance and regularity. In this regard, the results revealed that SMEs' export performance was primarily predicted by firms' marketing capabilities, local relational resources and managerial resources, hence accepting H1a, H2a, H3a, H4a and H5a, and rejecting H6a. These resources and capabilities were found to predict 36% of the variations in SMEs' export performance. Furthermore, foreign relationships were the sole factor found to be a significant precursor of export regularity, thus accepting H6b only. This factor predicted 39% of the regularity variances. Lastly, it was also deemed appropriate to explore the predictive validity of the proposed model. To do this, the  $Q^2$  Stone-Geisser value was computed. This yielded values for both endogenous constructs above zero (Export



Performance = 0.532, Export Regularity = 0.466), providing evidence for a large predictive relevance (Hair et al., 2016).

## **6. Discussion**

For Algerian exporters, marketing capabilities, managerial resources and relational resources gained through domestic peer firms were found to be amongst the most critical resource factors affecting export performance. Regarding the relational resources, local collaboration was a key factor for Algerian SMEs' internationalisation. This confirms several findings from developing countries where firms are characterised by a high sense of solidarity and cohesion amongst each other (Zhou et al., 2007; Ibeh and Kassem, 2011). As a result, local collaboration is often used by those firms to overcome various obstacles linked to export markets (Ghauri et al., 2003). Particularly in African countries, evidence from Benin (Hounhouigan et al., 2014) and Niger (Arnould, 2001) revealed that successful firms rely on close relationships with trusted peers to sustain their business activities. Hence, the findings show that Boehe's (2013: 167) statement of "collaborate at home to win abroad" is also applicable to the Algerian context. Peer firms in developing countries often share efforts and information to succeed in international markets, a phenomenon known as "collective efficiency" (Boehe, 2013). In Arab countries, managers put much emphasis on personal contacts and hence spend more time on developing relationships for business purposes (Kabasakal and Bodur, 2002). Similar to "Guanxi" in the Chinese culture, the "Wasta" equivalent phenomenon in Arab societies like Algeria plays an important role in shaping business activities. "Wasta" is defined as the set of social networks of interpersonal connections and information sharing through social and politico-business networks (Hutchings and Weir, 2006). In Algeria, collaborative behaviour is often encountered amongst exporters who frequently engage in local collaboration (Ramdani et al., 2014; Reguia, 2014). Recent empirical evidence demonstrated that local collaboration enhanced

Algerian SMEs' rate of innovation (Benhabib et al., 2016). The present study shows that this practise may also help in explaining SMEs' export performance.

As for the role of managerial resources, the current findings confirm most previous studies. Knowledgeable managers are more effective in dealing with often demanding foreign business practices (Stoian et al., 2011) and meeting foreign clients' requirements (Koh, 1991). Knowing the export-related procedures assists managers in improving their decision making process (Spence and Crick, 2001) and developing their business strategies more effectively (Ling-Yee, 2004). Turning to the marketing capabilities, the results are also in line with several previous studies (Zou et al., 2003; Kaleka, 2012; Obadia and Stottinger, 2014). Effectively gathering information regarding foreign markets allows exporters to successfully predict and react to changes in the complex and competitive international environment (Sousa et al., 2008). Similarly, through effective planning, exporters are able to benefit from opportunities of cost reduction and reduced uncertainty (Julian, 2003), whereas using a market-based pricing approach would allow them to ensure prompt responsiveness to often changing international markets (Leonidou et al., 2002).

As for the non-significant influence of technological resources and innovative capabilities on SMEs' export performance, the latter accords with the limited studies conducted in developing countries where technological and innovative factors were not found to be significant determinants of export performance (Alvarez, 2004; Man, 2010), yet is still in contrast with findings from developed nations. Such a trivial role is explained as follows.

First, this could be due to the nature of the exported products coming from Algeria. In general, SMEs from developing countries tend to target niche markets which do not necessarily require advanced technology and innovative capabilities (Alvarez, 2004). In Algeria, agricultural and food-related products (such as fruits and vegetables) are the typical SMEs'

exported goods (ALGEX, 2014). Such types of products do not require advanced technologies and thus acquiring technological assets may not be necessary to achieve a competitive advantage. Second, as SMEs in developing countries are typically resource-constrained, spending on technology and R&D activities may restrict the financial capitals assigned to export activities, which would affect export performance (Rodriguez and Rodriguez, 2005). Technological resources engender high costs, which could eventually hamper firms' performance in international markets (Deng et al., 2014). Similar findings were reported from Zimbabwe where innovativeness had a negative influence on exporting SMEs' performance (Matanda et al., 2016). Therefore, it is clear that the contrasting trivial role of technological and innovative factors could be due to the nature of the Algerian context where SMEs are operating.

Regarding the impact of firms' resources on export regularity, the current study suggests foreign relationships as the unique factor driving regularity. This evidence concurs with Fafchamp et al's (2008) Moroccan study suggesting that exporting is mainly driven by international networks. While previous evidence indicates that relationships with foreign buyers may inhibit export performance, due to power asymmetry (Matanda et al., 2016), this study reveals that it is more likely to improve regularity rather than performance per se.

The positive influence of foreign relationships on export regularity can be interpreted from the perspective of the knowledge needs disparities between sporadic and regular exporters. While early exporters require general and objective foreign knowledge, the more advanced exporters need specific and experiential foreign market knowledge (Crick 1995), which can often be obtained through foreign buyers. In addition, according the revisited stages model (Uppsala), firms would increase their international commitment in markets where they possess valid partners (Johanson and Vahlne, 2009). The current results confirm such claims and highlight that enhanced foreign networks will encourage the firm to move from sporadic

to regular exporting. At the beginning of the internationalization process, firms start exporting sporadically. Such sporadic operations enable the accumulation of experiential knowledge, which eventually results in increased commitment and a shift towards regular international activities (Figueira-de-Lemo et al., 2011). Commitment to foreign partners leads to trust-building and learning which thereafter results in identification of new opportunities. Successful foreign collaboration and referrals can also support SMEs to acquire new customers and become regular exporters (Hitt et al., 2006; Deng et al., 2014).

Alternatively, a further reason why foreign ties may contribute to export regularity and not performance could be explained through the lenses of the sunk costs approach. Here, SMEs consider the development and maintenance of foreign ties as sunk costs (Mattoussi and Ayadi, 2017), as these require significant investments (Brooks and Van Biesebroeck, 2017). Hence, firms would sustain their activities in foreign markets (even if short-term performance was unsatisfactory), in order to avoid re-establishment costs when more favourable market conditions are established (Roberts and Tybout, 1997; Das et al., 2007)<sup>3</sup>.

## **7. Conclusion and Implications**

Drawing on a dual resource-based and network-based view, a comprehensive model outlining the critical internal and external resource-factors driving SMEs' export performance and regularity is proposed. The model was empirically tested with data from 103 exporters operating in the largest African country, namely Algeria. This sample is considered as highly representative of the existing limited population of Algerian exporters. As this is the first study considering this country, we contribute to the special issue by offering novel and comprehensive evidence from Algeria.

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<sup>3</sup> The authors of this article would like to acknowledge the anonymous reviewers for raising this perspective.

Overall, the results indicate that export behaviour is affected by the context where firms operate. Exporters in Algeria are driven by different factors in comparison with counterparts in the developed world. For example, while the export literature has emphasised the role of technological and innovative resource factors in improving SMEs' export performance (Moini, 1995; Díez-Vial and Fernández-Olmos, 2013), the present study highlighted that Algerian exporters' performance is instead driven by local relational resources, marketing capabilities and managerial resources. Often lacking capital and mainly exporting low-tech products, Algerian SMEs do not necessarily require high technology and innovation capabilities to be internationally competitive. These SMEs, by contrast, rely on locally available and inexpensive resources to exploit foreign market opportunities (Boehe, 2013). Furthermore, the study has investigated the predictors of SMEs' export regularity, a dimension often neglected by previous studies (Cadot et al., 2014; Deng et al., 2014; Fu and Wu, 2014). In this respect, relational resources through foreign buyers were considered crucial for SMEs' regularity in exporting.

The extant findings hold important implications for both theory and practice. Theoretically, the comprehensive model proposed here, in which various types of internal and external resources are tested simultaneously, allows researchers to establish the primacy of some resources over others. It was revealed that in the present context, *not all resources are equally important for export behaviour and not all lead to the same outcome*. Hence, our findings respond to Zou and Stan's (1998); Sousa et al.'s (2008) and Beleska-Spasova et al.'s (2012) calls for more comprehensive approaches to address the fragmented nature of the export performance literature.

Second, the study included export regularity as an additional dimension to reflect export success. This inclusion provides valuable indications regarding the key resources assisting existing exporters to sustain their international performance and survive in foreign markets.

Such a regularity aspect of export success has to date been overlooked within the export performance literature (Cadot et al., 2014; Deng et al., 2014; Fu and Wu, 2014).

Third, testing the data in a North African country has revealed that the key drivers of export performance in developing countries differs from those generally reported in developed nations. The non-significant contribution of technological resources and the proven importance of local relationships are contrary to prior findings gathered from UK exporters (Beleska-Spasova et al., 2012; Haddoud et al., 2017). The low-tech nature of the products exported from Algeria and the collectivist environment where firms operate did influence the determinants of export performance and regularity. Therefore, such findings urge future researchers to abstain from generalising their findings across different contexts.

As for practise, our findings would be particularly useful to export promotion organisations (EPOs) and SMEs operating in African countries sharing similar characteristics with Algeria, including Gabon, Libya, Nigeria, the Republic of Congo and Sudan. With a few exceptions, the extant empirical export literature has been overspecialised, which has consequently led to fragmented findings on the resource-factors affecting firms' export performance. In this respect, the comprehensive approach adopted in this study addresses this issue by highlighting the key groups of resources relevant to African exporters. Czinkota and Ronkainen (2011) acknowledged that undertaking a more comprehensive approach would provide enhanced implications for businesses and practitioners. This approach would be particularly relevant to the present context where both SMEs and EPOs are resource-constrained.

Precisely, the present findings suggest that EPOs in Algeria should use their means for strengthening the resource base of exporting SMEs selectively and in a different manner than EPOs in more advanced economies. Specifically, Algerian EPOs should take full advantage

of the “solidarity” and collaborative capital available in these societies to help increasing SMEs’ export performance. This study has demonstrated that home collaboration was indeed a significant determinant of international performance. Contrastingly, the current Algerian development scheme does not dedicate sufficient efforts to support developing such collaborative strategies. Moreover, the key “missions” advocated by the Algerian EPOs appear to focus mainly on export financing, market intelligence and export training (Algerie Conseil Export, 2016). For example, ALGEX, which is the main export promotion body in Algeria, states that their key activities focus on the provision of information and guidance regarding exporting and foreign opportunities, the sponsoring of trade missions and fairs abroad and the identification of the export potential (ALGEX, website). Therefore, we propose that Algerian EPOs should adopt a more proactive stance in encouraging, facilitating and maintaining a collaborative environment where peer firms could cooperate and access the so-called relational resources. Specifically, those EPOs should organise and facilitate clustering schemes in which exporters could collaborate and exchange crucial information and experiences about exporting as well as tangible resources and infrastructures. Associations should be created to establish a formal framework for such collaborative activities. Similarly, internet-based collaborative tools should also be put in place to increase visibility and reachability of Algeria firms. Online networking platforms should be used as a base where those firms can collaborate. It is surprising that the only export association in Algeria (namely ANEXAL) does not use a website. Internet platforms are increasingly successful at helping SMEs in their export activities (Meltzer, 2015). EPOs in many countries have developed internet platforms for international trade. Matchsme.com in Denmark, Connectamericas.com in the USA and AZExport in Azerbaijan are salient examples. Similar platforms should be created in Algeria where existing exporters and potential exporters could effectively collaborate. Using similar platforms, Algerian EPOs can also help in facilitating

and maintaining relationships between experienced exporters and their foreign clients. This will allow them to be more regular in their export activities. Such a role can be taken by Algerian trade offices based abroad (including embassies' commercial departments), which would act as facilitators for these collaborations. Recent reports indicate that such offices are not fulfilling their full potential (Nancy et al., 2009).

Furthermore, Algerian EPOs should dedicate particular attention to the provision of training designed to assist firms develop both their marketing capabilities and market knowledge. The current training programmes offered by these EPOs focus mainly on export procedures and administration procedures (Nancy et al., 2009). While these are important, training programmes targeting marketing aspects such as informational, advertising and pricing abilities will boost export performance. Similarly, a more active role in providing up-to-date and accurate foreign market intelligence should be developed. Mosbah and Debili (2014) showed that one of the key challenges Algerian SMEs face consists of a lack of market knowledge. Particularly for experienced exporters, evidence suggests that they would require more specific market knowledge (Leonidou and Katsikeas, 1997). Once more, such a specific foreign market knowledge can be obtained through overseas Algerian trade offices.

Finally, this study acknowledges its limitations. First, to ensure generalisability, the study included SMEs operating in various sectors. However, we recognise that firms from different sectors may behave differently when operating in export markets. Therefore, future research could focus on one particular sector to control for such influence. Second, the integrative approach adopted in this study was comprehensive yet by no means exhaustive. The researchers included the factors commonly cited in the literature as determinants of export performance. Additional factors could have been neglected and hence omitted in this study. Third, the cross-sectional nature of the data implies that the causal relationships argued here does not exclude alternative links. Lastly, beside the resource factors included in the



proposed model, environmental and institutional factors are also likely to have a direct influence on SMEs' exporting activities. Since the focus of this paper is on the influence of firms' assets, further research could extend our model and include additional external factors.

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## Appendix A: Confirmatory Factor Analysis (PLS Approach)

| Items  | Loadings |
|--|----------|
| <b><i>Innovative Capabilities</i></b>  |          |
| measured on five-point scale: 1= strongly disagree, 5=strongly agree<br>source: Leonidou et al (2011)  |          |
| Our firm is constantly adopting new methods in the production process  | 0.777    |
| Our firm is constantly developing new products for foreign markets   | 0.822    |
| Our firm is constantly adopting innovative export marketing techniques   | 0.789    |
| Our firm is constantly sensing trends and competitors' movements in overseas markets   | 0.891    |
| <b><i>Technological Resources</i></b>  |          |
| measured on five-point scale: 1= strongly disagree, 5=strongly agree<br>source: Leonidou et al (2011)  |          |
| Our firm possesses modern production technology and equipment for exporting  | 0.722    |
| Our firm possesses unique products for foreign markets   | 0.647    |
| Our firm possesses proprietary technical knowledge for exports   | 0.684    |
| Our firm spends considerable amounts of money on R&D for exports   | 0.811    |
| Our firm possesses the production capacity for exports <sup>a</sup>  |          |
| <b><i>Marketing capabilities</i></b>   |          |
| <b><i>Firm's informational capabilities</i></b>  |          |
| measured on five-point scale: 1= much worse than competitors, 5=much better than competitors.<br>source: Kaleka (2002); Morgan et al (2006); Leonidou et al (2011)         |          |
| Capturing important market information   | 0.737    |
| Identifying prospective customers  | 0.884    |
| Acquiring export market related information  | 0.905    |
| Making contacts in the export market   | 0.895    |
| Monitoring competitive products in the export markets  | 0.848    |
| <b><i>Firm's pricing capabilities</i></b>  |          |
| measured on five-point scale: 1= much worse than competitors, 5=much better than competitors).<br>source: Zou et al (2003); Vorhies and Morgan (2005); Morgan et al (2012) |          |
| Doing an effective job of pricing the export venture products  | 0.859    |
| Communicating pricing structure and levels to customers  | 0.902    |
| Using our pricing skills to respond quickly to changes in customer needs   | 0.829    |
| Being creative in "bundling" pricing deals   | 0.772    |
| <b><i>Firm's advertising capabilities</i></b>  |          |
| measured on five-point scale: 1= much worse than competitors, 5=much better than competitors.<br>source: Zou et al (2003); Morgan et al (2012)                             |          |
| Developing effective export advertising and promotion programmes   | 0.923    |
| Advertising and promotion creativity   | 0.949    |
| Skilfully using marketing communications   | 0.959    |
| Effectively managing marketing communication programmes overseas   | 0.949    |
| <b><i>Firm's business planning</i></b>   |          |
| measured on five-point scale: 1= strongly disagree, 5=strongly agree.<br>source: Lukas et al (2007)  |          |
| Our export plan is widely disseminated throughout the organisation   | 0.801    |
| We constantly refer to our export plan to direct our export activities   | 0.880    |
| Our firm uses a formalised method of export planning   | 0.887    |
| Our firm uses a structured export planning process   | 0.893    |
| <b><i>Managerial Resources</i></b>   |          |
| <b><i>Objective Export knowledge</i></b>   |          |
| measured on five-point scale: 1= strongly disagree, 5=strongly agree<br>source: Leonidou et al (2011)  |          |
| We have extensive knowledge of foreign market demand   | 0.785    |
| We have extensive knowledge of export regulations and paperwork  | 0.896    |
| We have extensive knowledge of foreign business practices  | 0.846    |
| We have extensive knowledge of overseas shipping and transportation practices  | 0.848    |
| <b><i>Language Abilities</i></b>   |          |
| We have proficiency in foreign languages   | NA       |

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| <b><i>Experiential Export Knowledge</i></b>  |       |
| measured on five-point scale: 1= strongly disagree, 5=strongly agree                                     |       |
| source: Gencturk and Kotabe (2001);  |       |
| We have frequently travelled abroad for business purposes in the last 3 years                            | 0.827 |
| We have extensive professional exporting experience  | 0.645 |
| We have extensive overseas experience (lived or worked abroad)   | 0.790 |
| <b><i>Export perception</i></b>  |       |
| measured on five-point scale: 1= strongly disagree, 5=strongly agree                                     |       |
| source: Koh (1991)   |       |
| Exports are only profitable in the long run  | 0.595 |
| Exports can contribute to the profit objectives of the firm  | 0.876 |
| Exports can make a contribution to the attainment of growth objectives                                   | 0.860 |
| Exports are more profitable than domestic sales <sup>a</sup>   |       |
| <b><i>Local Relationships</i></b>  |       |
| measured on five-point scale: 1= strongly disagree, 5=strongly agree                                     |       |
| Source: Lages et al (2005)   |       |
| These firms frequently discuss strategic issues with us  | 0.861 |
| These firms openly share with us confidential information about export markets                           | 0.849 |
| Our firm has a continuous interaction with these firms during implementation of our export strategy      | 0.894 |
| The objectives of our firm's export strategy are communicated clearly to these firms                     | 0.832 |
| There is extensive formal and informal communication during implementation of our export strategy        | 0.849 |
| Maintaining a long-term relationship with these firms is important to us                                 | 0.860 |
| We focus on long-term goals in this relationship   | 0.858 |
| We are willing to make sacrifices to help these firms from time to time                                  | 0.898 |
| Our association with these firms has been highly successful  | 0.902 |
| We believe that over the long run, our relationship with these firms will be profitable                  | 0.905 |
| These firms rarely talk with us about their business strategy  | 0.784 |
| Team members from both sides openly communicated while implementing our export strategy                  | 0.803 |
| These firms leave a lot to be desired from an overall performance standpoint                             | 0.727 |
| Overall, the results of our relationship with these firms fell far short of expectations                 | 0.851 |
| <b><i>Foreign Relationships</i></b>  |       |
| measured on five-point scale: 1= strongly disagree, 5=strongly agree                                     |       |
| Source: Lages et al (2005)   |       |
| Our main importers frequently discussed strategic issues with us   | 0.872 |
| Our main importers openly share with us confidential information about foreign markets                   | 0.859 |
| Our firm has a constant interaction with our main importers during implementation of our export strategy | 0.865 |
| The objectives of our firm's export strategy are communicated clearly to our importers                   | 0.884 |
| Team members from both sides openly communicate while implementing our export strategy                   | 0.873 |
| There is extensive formal and informal communication during implementation of our export strategy        | 0.819 |
| We believe that, over the long run, our relationship with the main importers will be beneficial          | 0.909 |
| Maintaining a long-term relationship with the main importers is important                                | 0.872 |
| We focus on long-term goals in this relationship   | 0.899 |
| We are willing to make sacrifices to help our main importers from time to time                           | 0.941 |
| Our association with our main importers has been highly successful                                       | 0.794 |
| Our main importers rarely talk with us about their business strategy                                     | 0.736 |
| Our main importers leave a lot to be desired from an overall performance standpoint                      | 0.850 |
| Overall, the results of our relationship with the importers fell far short of expectations               | 0.782 |
| <b><i>Export performance</i></b>   |       |
| measured on five-point scale: 1= strongly disagree, 5=strongly agree                                     |       |
| Source: Zou et al. (1998)  |       |
| <b><i>Financial Export Performance (EXPERF_F)</i></b>  |       |
| Our export venture was profitable  | 0.755 |
| Our export venture achieved rapid growth   | 0.853 |
| Our export venture has generated a high volume of sales  | 0.862 |
| <b><i>Strategic Export Performance (EXPERF_R)</i></b>  |       |
| Our export venture has strengthened our strategic position in the export market                          | 0.918 |

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| Our export venture has significantly increased our market share                                   | 0.947              |
| Our export venture has been very successful   | 0.897              |
| <i>Satisfaction Export Performance (EXPERF_S)</i>   |                    |
| The performance of our export venture has been satisfactory                                       | 0.901              |
| Our export venture has met our expectations in all respects                                       | 0.895              |
| Our export venture has improved our export competitiveness  | 0.863              |
| <b>Export regularity</b>  |                    |
| Our firm exports regularly (measured on five-point scale: 1= strongly disagree, 5=strongly agree) | <i>Single item</i> |
| <b>Control Variables</b>  |                    |
| <i>Firms' Size</i>  |                    |
| Number of Employees   | <i>Single item</i> |
| <i>Firms' Age</i>   |                    |
| Number of years   | <i>Single item</i> |
| <i>Firms' Export Experience</i>   |                    |
| Number of years exporting   | <i>Single item</i> |
| <i>Firms' Export Intensity</i>  |                    |
| Proportion of export sales over total sales   | <i>Single item</i> |
| <i>Firms' Ownership</i>   |                    |
| Who owns the firm (family/partnership/sole proprietorship)  | <i>Single item</i> |
| <i>Management Type</i>  |                    |
| Who manages the firm (owner/appointed manager)  | <i>Single item</i> |
| <i>Access to Financial Assistance</i>   |                    |
| The use of export financing programmes  | 0.746              |
| The use of export credit insurance  | 0.841              |
| The use of tax incentives   | 0.874              |
| <sup>a</sup> <i>Dropped item</i>  |                    |