

External resource provision and the international performance of SMEs – A contextual analysis

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1. Introduction

Due to their limited size and resources, small and medium-sized enterprises [SMEs] are likely to depend more than large multinational enterprises on links to external organizations and their assistance in coping with environmental complexities in new foreign markets (Jones et al., 2011; Park et al., 2014; Autio, 2017; Torkkeli et al., 2019).¹ Not having such links may become a liability of ‘outsidership’ for SMEs (Johanson & Vahlne, 2009; Vahlne & Johanson, 2020), while accessing key resources and information through external links helps to reduce their liability of foreignness (Coviello & Munro, 1995; 1997; Blomstermo et al., 2004; Tolstoy & Agndal, 2010; Kontinen & Ojala, 2011).² There is a considerable literature on how networking with external parties, including clients and government agencies, can benefit internationalization through providing relevant information and other resources, as well as informing decision-making (e.g., Zain & Ng, 2006; Musteen et al., 2010; Jeong, 2016; Stoian et al, 2017).

Despite the widely-held assumption that networking with external parties can assist SMEs’ international performance, studies have produced contrasting results (Srivastava et al., 2018). There may be several reasons for this lack of consistent findings, including insufficient attention to the specifics of how networking can be functional for international performance in different contexts (Morais & Ferreira, 2020; Srivastava & Tyll, 2021). While networking holds out the promise of providing valuable information on foreign markets as well as other resources, the realization of that promise depends on engaging with appropriate external partners. So far, more attention has been given to forms of networking (such as formal or informal, personal or impersonal) than to the category of external link involved. Hence there have been calls for research into which types of external link provide particular benefits for SME internationalization (Ryan et al., 2015; Nyuur et al., 2018). Moreover, the question of how networking patterns may need to be adjusted to suit different contexts has been largely neglected.

Although some studies have considered the range of external links activated by SMEs to assist their pursuit of internationalization (e.g. Chetty & Stangl, 2010; Senik et al., 2011; Oparaocha, 2015; Andersson & Sundermeier, 2019), these suffer from several limitations. First, they generally do not distinguish between different external links in terms of their importance for assisting SME internationalization. Second, most existing studies are too small-scale to allow for a comparative context-sensitive analysis (e.g., Harris & Wheeler, 2005; Shaw, 2006; Sammarra & Biggiero, 2008; Masango & Marinova, 2014). These limitations are significant in view of the

call for research on SMEs' inter-organizational relations and internationalization to move beyond one-size-fits-all approaches by studying purpose-specific links and taking 'context' into account (Paul et al., 2017; Agostini & Nosella, 2019). Third, studies have often aggregated different types of external link in order to predict the impact of overall 'networking' on SME internationalization (e.g. Felzensztein et al., 2015). Aggregation neglects the possibility that different categories of external link may provide different forms of resource assistance for internationalization, and that their importance may vary according to the context. Fourth, while there have been some attempts to distinguish between specific categories of external link and the purposes they fulfil, these are generally based on small samples (e.g. Chetty & Stangl, 2010; Partanen et al., 2014; Stoian et al., 2018). An exception to these small sample studies is the detailed comparison of external links among 46 Portuguese biotech and software firms (mostly SMEs) undertaken by Salavisa et al. (2012), but this focused on the resources required for innovation rather than for internationalization. This is also one among few studies to take account of the industry contexts of the firms studied.

The need to locate and develop our theories of business and organization in context is now widely recognized (e.g., Whetton 2009; Elbanna et al., 2020). There have been calls for a greater sensitivity to 'context' both in the entrepreneurship literature (e.g. Autio et al., 2014), and in the international business [IB] literature (e.g. Meyer, 2015; Reuber et al., 2017; Teagarden et al., 2018; Kahiya, 2020). However, the majority of previous studies referring to context have just considered macro contextual contrasts rather than examining how their consequences work out at the firm level (Su et al., 2017). And when the potential relevance of their context for the external relations of internationalizing SMEs has been considered, the focus has generally been on a single aspect (most often culture or institutions). This is despite the presence of 'polycontextuality' – the fact that contexts are complex multifaceted phenomena (Shapiro et al., 2007) and that international business is often embedded in more than a single context (Michailova, 2011).

We focus on two aspects of SME context that we argue are theoretically relevant, namely industry and level of home economy development. The research reported in this paper addresses the following questions: (1) Which categories of external link contribute to the international performance of SMEs and does their relationship to international performance vary according to industry and home economy contexts of the SMEs? (2) Does the perceived importance of different external links for the provision of *specific* forms of assistance toward internationalization vary according to industry and home economy contexts of the SMEs?

International performance is defined in terms of the extent to which the firm has achieved benefits from doing business with or in foreign markets. We analyse findings from an investigation of 180 internationally-active SMEs (the great majority being exporters) located in three industries that contrast in their knowledge bases (clothing, software and biotech) and in two sets of home economies that contrast in their level of economic development.

The study contributes in several novel ways to the stream of literature on egocentric networking by internationalizing SMEs. One is to develop a distinction between core (market transactional) links to external parties and discretionary (institutional and commercial) external links. A second contribution is to indicate that discretionary links have a stronger association with superior international performance. A third contribution is to show that behind these broad categories of external link, there is a more intricate picture of how specific links and the market-related, financial, and technical assistance they offer for SME internationalization varies according to the firms' industry and home economy level of development. A fourth contribution derives from the study's incorporation of these two aspects of context into its research design. This degree of polycontextuality responds to calls (e.g., Teagarden et al., 2018; Sedzinauskiene et al., 2019) for more empirical work that moves beyond consideration of a single country and a single industry context. It enables our findings to highlight the relevance of the resource dependence, environmental munificence and institutional perspectives that theoretically inform the study. Overall, these contributions provide the basis and tools for developing a new contextually-informed model of SME egocentric networking.

The following section develops the conceptual and theoretical underpinnings of the research which inform its hypotheses. There is then a description of the scope and methodology of the empirical study, followed by its findings. The closing Discussion presents the theoretical and practical contributions of these findings.

2. Key concepts, theoretical perspectives, and hypotheses

2.1. Concepts: egocentric networking; core and discretionary links

The links that SMEs may form with potential external resource providers fall into a number of broad categories (Chetty & Stangl, 2010; Senik et al., 2011). These include *market transactional links* with customers, distributors or local agents (hereafter called 'market agents') and suppliers; *institutional links* to bodies such as government trade promotion agencies, universities, and industry/trade associations that are formally constituted to offer advice and knowledge; and *links to commercial providers of assistance* such as banks, venture capitalists, consultants and other

nearby firms. These categories of external link potentially perform different functions in terms of the assistance they offer for SME internationalization, such as supplying referrals to potential foreign customers, technical knowledge for innovation that can position SMEs better for international success, financial support, or information on foreign markets. Taken together, these external links constitute an ‘egocentric network’ of ties connecting the focal actor (the SME) to other actors, in this case external resource providers (Wasserman & Faust, 1994). We shall therefore refer to an SME’s use of such links as ‘egocentric networking’.

Within the field of egocentric networking, we distinguish between core (market transactional) links and discretionary (institutional and commercial) external links. Little attention has been paid to the relevance of making such distinction, or of exploring the factors that predict variations in SME decision-makers’ assessments of such links as resource providers for internationalization. Market transactional links arise in the normal course of doing business, and in this respect may be regarded as ‘core’ relationships, whereas other categories are ‘discretionary’ in the sense that SME decision-makers may or may not choose to connect with them to assist the process of internationalization. This distinction is especially relevant for resource-constrained SMEs, which have to manage their external links in a productive and affordable manner. It is likely that the use of discretionary external links to assist internationalization is particularly sensitive to context. Thus in some less developed economies, institutional or commercial resource providers may not be available or effective (Narooz & Child, 2017). One could question how discretionary such links really are if they are important for SMEs to achieve successful internationalization. Nevertheless, they do reflect a degree of decision-maker discretion because they normally have to be initiated proactively over and above regular operational business transactions (Gerschewski et al., 2020).

2.2. Theoretical perspectives

As indicated in the Introduction, there is broad acceptance of the general proposition that networking with external parties can assist SME internationalization through providing relevant information and other resources, as well as advising decision-making. Using these channels of assistance should increase the likelihood that SMEs will achieve superior international performance. However, while egocentric networking is expected to benefit internationalization outcomes, exactly how this happens is less well understood. Despite the abundance of network studies in understanding SME internationalisation, little is known about the role of different network links in predicting the international performance of SMEs (Reuber et al., 2017).

This gap in knowledge leads to the question how different categories of external link (core and discretionary) are each associated with SME international performance. Because the use of discretionary links is more selective and implies a degree of strategic proactivity, the international performance of SMEs is expected to benefit the more that SMEs identify them as important. At a more detailed level of analysis, the question arises as to whether there are variations in the perceived importance of specific external links with respect to the forms of assistance they provide for SME internationalization. We argue that each of these questions has to be framed with reference to the potential relevance of industry and home economy level of development. We shall therefore set out hypotheses formalizing the questions raised after elaborating on the relevance of these two aspects of context.

Two considerations are likely to inform the engagement of SMEs with external resource providers. The first concerns the specific resources that SMEs require to assist their internationalization. The second concerns the availability and effectiveness of external links as channels for obtaining such resources. Three theoretical perspectives – referring to resource dependence, environmental munificence and institutions – indicate that these considerations are likely to vary according to the industry and home economy context.

The resource dependence perspective lends itself to identifying the resources that are critical for an SME to operate in its particular industry (Pfeffer & Salancik, 1978; Westhead et al, 2001; Hessels & Terjesen, 2010). This perspective is complementary to the knowledge search perspective (Nebus, 2006) which suggests that external links/contacts are instrumental in knowledge search and that an ego's choice of whom to contact is often related to the expertise required for the task at hand. An ego may establish several external links to obtain expertise required for different aspects of the task. The implication of the resource dependence perspective is that SMEs often lack certain critical resources to pursue internationalization and therefore depend on external organizations to provide them (Hessels & Terjesen, 2010). The importance an SME attaches to assistance from particular external links is expected to reflect the resource and information needs associated with its line of business, as denoted by the industry to which it belongs. At the same time, the availability and effectiveness of external supports, especially those in the discretionary category, are also likely to reflect the level of economic and institutional development of an SME's home country. The environmental munificence perspective draws attention to the availability of such resources in economies at different levels of development, while the institutional perspective draws attention to the institutional competitive advantages of developed economies vis-à-vis emerging economies and the presence

of public and commercial agencies in a given country that can potentially provide resource support (Landau et al., 2016).

2.3. Hypotheses

2.3.1. Broad categories of external links ('core' and 'discretionary') and international performance

Resource dependence theory stresses the importance of external links as channels for the provision of resources necessary for successful internationalization and growth including foreign market information, introductions to potential foreign customers, finance, technical information in support of innovation-led foreign market entry, and so forth (Hessels & Parker, 2013; Oparaocha, 2015). Extant literature (see Hughes et al., 2019) on SME internationalization indicates that the greater the size of external links that a SME has with others, the better the international performance their firms achieve. As explained earlier, core links are primarily the relationships that SMEs have with parties involved in business transactions, such as clients/customers and suppliers. Previous research (e.g. Jeong, 2016; Gerschewski et al., 2020) suggests that networking with these core business parties is conducive to high international performance because SMEs can leverage the resources provided through such links to adapt to unfamiliar foreign markets. As to discretionary links, it is important for new ventures which have international growth aspirations to make active efforts in establishing linkages with venture capitalists to leverage their financial, knowledge and reputation resources (Fernhaber & McDougall-Covin, 2009; Jones et al., 2011). Support obtaining through links with institutional actors, such as trade promotion agencies and research institutes, can also drive SME international performance (Sinkovics et al., 2018). Hence:

H1a. *Core external links positively influence the international performance of SMEs.*

H1b. *Discretionary external links positively influence the international performance of SMEs.*

2.3.2. Industry

In contrast to many multinational enterprises, SMEs tend to confine their activities to a single industry, which increases its likely salience for them (Monaghan & Tippmann, 2018). Yet the role of industry has not been prominent in discussions of SME internationalization (Reuber et al., 2017). Industry has often been treated in previous studies as a control, using dummy variables (manufacturing versus service or traditional versus innovative/high-tech) or Standard Industrial Classifications [SICs] (e.g. Lu & Beamish, 2001; Fernandez-Ortiz & Lombardo, 2009). Such broad categorizations of industry do not offer a deep appreciation of how different industries are

relevant for the operations of firms and for the nature of their external networking (Ebers & Jarillo, 1997). Industries are themselves polycontextual in having their own distinct institutions, technologies and social systems (Child et al., 2017), which implies that different industries will have distinct patterns of external resource provision to assist SME internationalization.

Empirical research contrasting the use of different external links to assist internationalization in different industry contexts continues to be limited (see review by Sedzinauskiene et al., 2019). The principal exceptions have been empirical studies comparing internationalization patterns between traditional and innovative/high-tech firms (e.g. Boter & Holmquist, 1996; Shrader et al., 2000; Bell et al., 2004). The international new venture literature concludes that early internationalization supported by external links is a phenomenon typical of high-tech knowledge-based industries rather than of traditional industries (Knight & Cavusgil, 2004; Onetti et al., 2012; Zander et al., 2015). Nevertheless, these industry contrasts remain quite broad, and they have tended to give less consideration to traditional industries.

A resource dependence perspective draws attention to the tangible and intangible resources that SMEs require to enter foreign markets (Westhead et al., 2001). Due to the typically thin resource bundles of SMEs, they often have to orchestrate and leverage links with external resource providers in order to augment and complement their resource base to facilitate international business expansion (Tolstoy & Agndal, 2010). Industries and the technologies they employ differ in their knowledge bases (Malerba, 2002). Requisite competencies and bodies of applied knowledge are industry-specific resources (Fai & von Tunzelmann, 2001). Consistent with a resource-based view of the firm, they provide a competitive advantage and are key to the firm's business model (Child, et al., 2017). The industry in which a firm is operating has a direct bearing on the tangible and intangible resources it regards as critical to doing business, including in a new foreign environment (Sui & Baum, 2014). Industry is therefore a potential influence on the kind of external assistance that SMEs will seek to obtain for their internationalization.

SMEs in different industries are embedded in idiosyncratic social systems that are interdependent with their technologies. In industries where firms assemble or finish consumer products, their networks are trading rather than scientific ones. Up-to-date market knowledge is of particular importance to them. Consistent with their relatively low-technology and need to respond quickly to changing market demands, they are likely to highly value close relations with suppliers and major retail customers, as well as with outsourcing partners when these are used – in other words with core external links (Dicken, 2015). By contrast, for high-tech SMEs, access to advanced knowledge is particularly important. They rely heavily on highly trained staff and

on external links that reflect the high technical level of their work (Salavisa et al., 2012). In research-based industries such as biotechnology, staff are typically highly qualified and maintain close links with their scientific communities (Perkmann & Walsh, 2007). Their career paths may move between biotech SMEs, research institutes, scientific consultancies and pharmaceutical companies, and so lay the foundations for a wide range of external links (Lam 2010; Allen & O’Shea 2014). In addition, accessing venture capital plays an important role in supporting new product development by both software and biotech SMEs (Lerner and Nanda, 2020). We therefore expect that high-tech knowledge-based SMEs – in software and particularly biotech – will tend to utilize a wider range of discretionary links in support of their internationalization compared to those in the clothing industry.

In short, the resource dependence perspective draws attention to the industry-specific resource needs of internationalizing SMEs, while industry is also a social point of reference for external sources of support. These considerations suggest that the external links regarded as strategic for SME internationalization will vary according to the industry in which an SME is located, particularly when contrasting industries that differ in their knowledge base according to Bell et al.’s (2003; 2004) typology of traditional, knowledge-intensive and knowledge-based SMEs. The foregoing considerations give rise to the following hypotheses:

H2a. *The relationship between core links and the international performance of SMEs will vary by the industry groups (clothing, software and biotech) to which SMEs belong.*

H2b. *The relationship between discretionary links and the international performance of SMEs will vary by the industry groups (clothing, software and biotech) to which SMEs belong.*

H3. *The perceived importance of different external links for the provision of specific forms of assistance toward internationalization will vary among the three industry groups (clothing, software and biotech) to which SMEs belong*

2.3.3. Home economy level of development

The context of resource munificence and institutional maturity in developed economies vis-à-vis emerging economies is expected to account for some variance in the availability of external resource providers to aid SME internationalization (Narooz & Child, 2017). Castrogiovanni (1991: 542) defined the degree of environmental munificence as ‘the scarcity or abundance of critical resources needed by (one or more) firms operating within an environment.’ It is reflected in the availability of economic, infrastructural, market, political and social resources (Specht,

1993). Environmental munificence is consequential for SMEs insofar as they seek resources external to the firm to pursue strategic objectives such as internationalization. In warning against the over-abstraction of munificence, Castrogiovanni (1991) urges that we should take account of its different aspects at various levels in the system. This is consistent with identifying the specific channels through which SMEs may acquire resources for internationalization.

Emerging economies are generally defined as middle-income economies (World Bank, 2020) that are undergoing economic and institutional transformation (Meyer & Grosse, 2019). In these respects they are less advanced than so-called developed economies. They tend to be less munificent than developed economies in their availability of financial and knowledge-based resources to support SME internationalization. The lower munificence of emerging economies is normally accompanied by less mature institutional systems compared to developed economies (Chang, 2007; Xu & Meyer, 2013). Munificence allows for the establishment and funding of formal agencies to support SMEs, but their capabilities for doing so may also depend on factors such as their experience and the absence of corruption. SMEs in an emerging economy are less likely to have the benefit of domestic bodies with experience in international business such as government agencies abroad, market intermediaries and educational institutions, while international support networks such as overseas chambers of commerce are less prevalent than in developed economies (Estrin et al., 2018). Such bodies are repositories of relevant knowledge; they may also provide channels of funding and personal introductions to assist SME internationalization. Developed economies tend to have a wider and more experienced range of institutions and intermediary support organizations able to direct assistance to SMEs (Szyliowicz & Galvin, 2010). This is significant because a more diverse array of support organizations and schemes should be more capable of offering SMEs the specific assistance they require for internationalization (Andersson & Sundermeier, 2019).

The institutional perspective provides a frequently referenced theoretical basis for research on firms in emerging economies (Jain & Sharma, 2013; Meyer & Peng, 2016). The concept of institutional voids is central to this perspective. It refers to the absence or underdevelopment of institutions that enable and support business activity (Doh et al., 2017), and constitutes a lack of maturity in a country's institutional development. Applying the institutional voids concept to SME internationalization directs attention to whether there are potentially supportive external agencies embedded in an SME's domestic national context (Oparaocha, 2015; Coudounaris, 2018). A broad definition of support institutions would include not only public bodies such as government trade-promotion agencies, universities and industry associations, but also

established commercial service providers such as the banking and venture capital sectors, and professional consultants.

Khanna and Palepu's pioneering article (1997) associated the presence of institutional voids with emerging markets. In emerging economies there are often institutional voids including limitations among external organizations that can potentially assist internationalizing SMEs (Adomako et al., 2019; Child, 2019). Moreover, the regulative and governmental institutional environment in such economies is also often unfriendly to small business due to formal restrictions, inefficiencies, the favoring of large state-owned firms, and corruption (Estrin et al., 2013; Puffer et al., 2013; World Bank, 2019). The difficulties that SMEs in emerging economies face in securing support for internationalization from formal institutions, and the limited development of intermediary sectors providing support such as venture capital, may oblige them to focus on leveraging links with suppliers, customers and nearby firms rather than with a wider range of institutional and other links (Nee and Opper, 2012; Ciravegna et al., 2014). This is consistent with the expectation of the knowledge search perspective that a resource provider will be used repeatedly only when it is readily available and reliable. Those SMEs from emerging economies which plan and network strategically to obtain influential resources are also expected to have better firm performance (Kiss et al., 2021). For example, trade associations can be said to be part of SMEs' environment and firms have the choice to join them or not. It has been reported that SMEs engaging strongly with trade associations tend to have better international performance (Brache and Felzensztein, 2019; Gerschewski, et al. 2020).

By contrast, developed economies tend to have a range of accessible and efficient sources of support. Entrepreneurial finance from venture capitalist and other sources is generally more plentiful and easier to access in developed economies (Hussain and Scott, 2015). Developed economies also tend to have more advanced knowledge-generating institutions such as universities and research institutes, and SMEs situated in this context are said to have greater access to information and knowledge resources needed for innovation and internationalization (Andersson et al., 2013; Abubakar et al., 2019). The context of institutional evolution and munificence in developed economies is a source of competitive advantage for firms (Landau et al., 2016). SMEs from such economies can exploit competitive advantages for internationalization by using discretionary links to a wide range of institutional and commercial support bodies in addition to traditional core market ties (Khanna & Palepu, 2010; Ciravegna et al., 2014).

The environmental munificence and institutional maturity perspectives therefore draw attention to the availability of support in SMEs' domestic economies for their internationalization. Specifically, they suggest that the external discretionary links regarded as important for assisting SME internationalization, and the help they provide, vary according to the level of development of the home country. This gives rise to the following hypotheses:

H4a. *The relationship between core links and the international performance will be stronger for SMEs in emerging economies as compared to developed economies.*

H4b. *The relationship between discretionary links and international performance will be stronger for SMEs in emerging economies as compared to developed economies.*

H5. *The perceived importance of different external links for the provision of specific forms of assistance toward internationalization will vary according to the home country contexts in which SMEs are located (emerging versus developed economies).*

3. Scope and method

3.1. Research design and sample

The two aspects of context incorporated into the study's research design are the SME's industry and home country level of development. The choice of three industries – clothing, software and biotechnology – was informed by Bell et al.'s (2003; 2004) typology distinguishing between traditional, knowledge-intensive and knowledge-based SMEs.³ The firms were located in two contrasting categories of economy – developed and emerging. In addition, the 180 SMEs sampled were selected according to two further pre-determined criteria in order to maintain consistency among them. The first was that sampled firms should employ fewer than 250 employees in order to ensure that they fall in the category of SME as defined by the EU. The second was that the selected firms must be active in outward international business and be generating sales revenues from abroad.

Sixty of the selected SMEs operated in each industry, and they were also evenly distributed between the three emerging economies (Arab Middle East, China, India) and three developed economies (Denmark, Poland, UK).⁴ All three emerging economies are reported to suffer from institutional voids that can create difficulties in raising funds and securing effective support for their internationalization from institutions and commercial agencies (Amankwah-Amoah et al.,

2019; Anand, 2015; Deng & Zhang, 2018; Elbanna et al., 2020; Narooz & Child, 2017; Puthusserry et al., 2014). The study also includes SMEs from three developed economies: Denmark, Poland and the UK.⁵ The European Commission Small Business Act [SBA] Fact Sheets for 2016 relating to each developed country were consulted to provide contextual information on institutional support relating to the period of the study reported below. In all three countries, there were active government programmes supporting SME internationalization through providing advice, finance and foreign market information. They were most developed in Denmark and least in Poland, a contrast which also applied to the availability of venture capital.

The size of the SMEs ranged from 3 to 249 employees, with 18 percent being micro firms (1-9 employees), 32 percent small (10-49 employees) and 50 percent medium-sized (50-249 employees). All the SMEs were engaged in foreign business, the great majority (94 percent) through exporting and 20 percent through licensing.⁶ On average, 55 percent of their sales revenues came from abroad, and there were no statistically significant differences in their foreign sales percentage associated with either the development level of the SMEs' domestic economy or their industry membership. Nor were there any statistically significant differences in the following key parameters as between the developed and emerging economy SMEs: their age, number of years internationalized, ownership dispersion, and owners' participation in management. However, the SMEs located in emerging economies tended on average to have more than double the number of employees compared to those from developed economies ($p < .001$). There were more statistically significant contrasts between SMEs when grouped by industry – in their age, number of years internationalized, total employment, and dispersion of ownership. Nevertheless, the only one of these parameters to correlate with the range of the SMEs' external links was the dispersion of their ownership – i.e., whether ownership included groups such as non-family shareholders, venture capitalists, and universities in addition to the entrepreneur or family owners. This is not surprising in that dispersed owners are also in effect external partners.

The sample employed a stratified research design. It did not aim to represent a given population, but rather to provide a set of firms that met the criteria described above. This is a form of purposive sampling, which is not aimed at statistical generalization but rather at examining whether there are variations in relation to their contexts among our features of interest (external resource providers and how they assist SME internationalization) that are unlikely to have occurred by chance. The choice of countries within the developed and emerging categories reflected the availability of local researchers known to have the necessary language and subject-

area competences and the understanding of the research context. The person(s) responsible for data collection in each country invited firms to participate in the research and, in total, 334 candidate firms were approached. Those firms that met the predetermined criteria and agreed to participate were added to the sample until the target sample of 180 SMEs was met (giving a response rate of 54 %).

3.2. Data collection

The data were derived from on-site interviews conducted during 2014 and 2015 in each economy with a principal decision-maker in each of the SMEs studied.⁷ The interviews focused on the subject of internationalization and were semi-structured, incorporating a mixture of closed-ended and open questions. On many occasions, conversations with other managers were also possible, and the on-site visits provided a good understanding of the sampled firms' activities.

The interview schedule was standardized in order to ensure consistency of measures and reliability within the multi-case and multi-country research process. It served as a replication guide for the researchers that ensured stability in data collection (Miles et al., 2014; Silverman, 2009). Various steps were taken to develop and maintain a common understanding of all questions and of the meanings to be attached to the responses, including three face-to-face meetings of all project members each lasting three days; further personal meetings between sub-groups within the project; and the first author's participation in a selection of interviews conducted in four countries other than his own. An essential role was performed by 32 regular Skype conference calls among project members, each lasting at least one hour, all of which were minuted. Regular emails were also exchanged several times each week.

3.3. Measurement and data analysis

Interviewees were first asked to select from a set of categories of external link those they perceived to be important sources of assistance for their firm's internationalization. To calculate the average number of selected categories, each category was scored 1 when selected and 0 when not selected. The interviewees were then asked to indicate, along 7-point scales ranging from 1 (low) to 7 (high), the *degree of importance* of each of the selected external links for the provision of *six specific forms of assistance* towards internationalization. These forms of assistance are (1) market information, (2) introduction to potential customers, (3) access to foreign networks and contacts, (4) coping with foreign country laws and regulations, (5) financial assistance, and (6) technical know-how.⁸ To calculate mean importance scores for each category of external link in respect of each form of assistance, external links that had not been selected by respondents as

important sources of assistance were scored 1 (the bottom of the scale) as ‘not relevant/not at all important’ for each of these forms of assistance. At the same time, we endeavoured to lend the interviews a conversational tone, inviting respondents to offer explanatory comments which were digitally recorded. The primary data collected were therefore quantitative, but with illustrative qualitative material. As an indicator of international performance, respondents were also asked to assess along 7-point scales (1 strongly disagree to 7 strongly agree) the extent to which their firm’s involvement in foreign markets had led to a number of outcomes: 1. Increase in productivity; 2. Increase on the firm’s overall competitiveness; 3. Increase in the firm’s profitability of sales; 4. Improvement in the firm’s overall performance; 5. Better access to new markets; 6. Contribution to innovation/learning; 7. Contribution to business development. The Alpha Coefficient for the composite scale formed of these items was 0.87.

Hypotheses 1a, 1b, 2a, 2b, 4a and 4b postulate the potential association of the broad categories of external links (‘core’ and ‘discretionary’) with internationalization performance. By contrast, hypotheses 3 and 5 refer respectively to the potential variation by industry and home country of *specific* external links that SME decision-makers regard as important for providing different forms of assistance towards their firms’ internationalization. For testing these latter hypotheses, we shall report data in sufficiently disaggregated form. Disaggregation contrasts with the consolidation of data and employment of composite measures that is typical of multivariate analyses. We concur with Museus and Truong’s (2009:23-24) warning that: ‘researchers and evaluators should use caution when analyzing and presenting aggregated data. Although the aggregation of data is common practice in qualitative and quantitative research and assessment, it is clear that the failure to critically analyze and consider the nuances within those data can lead to the formation and perpetuation of overgeneralizations, such as in the case of frequently cited oversimplified data that help perpetuate common misconceptions’. This warning is particularly apposite to the present investigation one of whose aims is to explore previously unidentified patterns of variation and association.

4. Findings

First, we report the distribution of external links that SME decision-makers identified as offering important assistance for their firm’s internationalization. Second, we examine which types of external link contribute to the international performance of SMEs and whether their relationship to international performance varies according to industry and home economy contexts. The third set of findings concern the perceived importance of different external links for the provision of specific forms of assistance toward internationalization and whether this varies according to

industry and home economy contexts. For this last analysis, the data are disaggregated and illustrated by respondents' qualitative comments, in order to reveal detailed variations in the perceived importance of specific external links with respect to the forms of assistance they provide, and whether these variations differ according to context.

4.1. Overall distributions of external links

Table 1 presents the percentage of SMEs selecting each kind of external link as providing important assistance for their internationalization, as well as the normal frequency of contact with them. The number of link categories selected by respondents ranges from 1 to 11, with a mean of 4.1. It is striking that approaching one-third of the total sample (28.9%) mentioned only two categories of external link as being of importance in assisting their internationalization.

Table 1 at back

SME decision-makers most often report that it is their market transactional partners who provide them with important assistance towards their internationalization. Customers, market agents, and suppliers were singled out more often than other categories (on average by 63.3% of respondents), with downstream partners in the lead. Ninety-five percent of those respondents mentioning only one type of contact of importance for internationalization singled out either customers or market agents. The reported frequency of firms' interactions with core partners was also greater than for those of a discretionary nature.⁹ Institutional links – to government support agencies at home and abroad, industry and trade associations, universities and research institutes – were on average singled out by 30.5% respondents. Links to the providers of commercial assistance such as consultants, banks venture capitalists and other nearby firms, were identified as important on average by 24.3% of respondents.

Table 2 presents the results for total, core and discretionary links when taking industry and level of home economy development into account. While there are no significant industry differences in the total number of links selected as important for internationalization, it is apparent that moving from clothing through software to biotech categories, SMEs tend to mention fewer core links as important sources of assistance, but more discretionary links. Although the effect sizes for industry differences range between small and medium (Field, 2013), they are in line with effect sizes reported in international business research (Ellis, 2010). Table 2 also reveals while there is an industry difference in the use of discretionary institutional links, the industry difference with respect to discretionary commercial links is only marginal.

SMEs located in developed economies tend to select a larger number of different link categories as being important for assisting internationalization. However, the difference between SMEs from developed and emerging economies in the range of core external links perceived to be important was not significant. By contrast, firms from developed economies tended to identify a wider range of important discretionary links, albeit institutional rather than commercial ones. The effect sizes for contrasts between developed and emerging economies were large in terms of the thresholds mentioned in the footnote to Table 2, thus indicating a substantial difference. In the next section, we will report if these differences matter by examining the relation of broad categories (core vs. discretionary) to international performance of SMEs in different contexts.

Table 2 at back

4.3. The relation of external links to international performance in different contexts

Hypotheses 1a, 1b, 2a, 2b, 4a and 4b raise the question of whether broad categories of external resource providing links ('core' or 'discretionary') perceived by SMEs are associated with international performance given the industry and home economy contexts in which the firms are located. These hypotheses are tested by means of the multiple regressions reported in Table 3. Total core and discretionary links mentioned as important for internationalization are entered as predictors and international performance is the dependent variable. We controlled for firm size (total employment), international experience (the number of years during which a firm had been engaged in sales to foreign markets), and the number of market regions SMEs exported to. Previous studies have found these variables relating to SME international performance (e.g. Brouthers et al. 2009; Karami & Tang, 2019; Nakos et al. 2019; Zahra et al. 2000).

In Table 3, Model 2 shows that international performance of SMEs was positively related to discretionary links ($\beta = .192, p = .012$) but not core links ($\beta = -.081, p = .282$). This supports H1b but not H1a. This suggests those firms identifying more discretionary links tended to report more strongly that they had gained benefits from internationalization, whereas this relationship was absent for core links. Additionally, as shown in Models 3-5, no significant relationship between core links and international performance was observed in any of the industry subsamples; thus, H2a does not receive support. Regarding the relationship between discretionary links and international performance, a significant relationship was observed in two of the industry subsamples. For software SMEs, discretionary links do not have a significant influence on international performance ($\beta = -.053, p = .659$), while this relationship is positively significant for clothing ($\beta = .333, p = .019$) and biotech SMEs ($\beta = .332, p = .027$); these industry differences

support H2b. Regarding the subsamples of developed versus emerging economy SMEs, Model 6 shows no significant relationship between core links and international performance ($\beta = .071$, $p = .503$) for the developed economy subsample. Model 7 shows a significant but negative relationship ($\beta = -.225$, $p = .041$) for the emerging economy subsample. Thus, H4a is not supported. Discretionary links have a positive significant influence on international performance only for emerging economy SMEs ($\beta = .269$, $p = .014$). In the case of developed economy SMEs, this relationship is not significant ($\beta = .108$, $p = .313$); thus, H4b receives support.

Table 3 at back

4.3 Industry, external links and specific forms of assistance provided

This section and the one following address Hypotheses 3 and 5 respectively. They examine in detail the perceived importance of different external links for providing specific forms of assistance for internationalization, and contrast them respectively according to industry and home economy contexts.

H3 postulates that the perceived importance of different external links for the provision of specific forms of assistance toward internationalization will vary among the three industry groups in which SMEs are located. Kruskal-Wallis tests were conducted to examine industry differences. For the sake of economy, only differences for which the probability of a chance occurrence is less than 10 percent are shown. The greater level of detail of the disaggregated data presented in Table 4 indicates that H3 as a general hypothesis is not supported. There are only statistically significant differences between the three industries for the 20 results shown, but not in the other 46 results not included in the table. This suggests that the rationale behind H3 only applies to some forms of assistance provided by some external resource providers but not to others. The quotations provided below illustrate the subtle variations between the three industries to which the SMEs belong (and sometime within a single industry) that emerge when examining the specific forms of assistance that important external resource providers were reported as providing.

Table 4 at back

The forms of assistance provided by customers illustrate these fine-drawn variations. Thus, existing customers tend to be important for software SMEs as vehicles for introducing them to potential new customers in foreign markets, and this is illustrated by interviewee comments:

*We have focused more on the customers than the markets. And then we have let the customers take our products wherever they wanted to. [Denmark 2 software]*¹⁰

Our principal link for assistance in market expansion and finding new customers is the client [Poland 18 software].

We are not doing any marketing...Whenever our customers moved to different countries they had taken us with them, which is fantastic. [AME 17 software]

By contrast, among clothing SMEs, foreign retail customers often offer assistance by specifying the merchandise that they should make for foreign markets, even collaborating in its design:

When some new products and trends emerge in the markets, our clients come to us and give us the information. Then we can put those ideas into production. [China 3 clothing]

Customers help us develop new designs - a customer comes and says "Could you develop a new line of garment for me? I have this hospital chain here in the southern part of Germany". So we have these demands. [Denmark 1 clothing]

Whereas biotech SMEs frequently emphasized the assistance given by customers and market agents in the registration of new formulations, which is a precondition for foreign market entry:

As soon as we go outside Europe, we have to investigate and we do that through a contact, such as a distributor that helps us to find the necessary contacts. It is the distributor that informs us about that a registration must be done before we can sell there and there. [Denmark 21 biotech]

Our main connections in the foreign markets are our customers and distributors. They give us all market related information like which products are banned in which markets. Whether we need to get licenses or what are the alternative ways to sell the products etc. [India 27 biotech]

Table 4 also indicates that clothing SMEs tend to attach greater importance than do software and biotech ones to the role of suppliers in assisting their internationalization. Explanations offered by interviewees indicate that fabric suppliers are particularly critical to a clothing firm's international performance in terms of fabric qualities, design and reliable delivery. They can also deliver important information on consumer preferences in foreign markets, offer technical assistance and provide financial assistance through their payment terms. For example:

We get very good support from suppliers for changing new things, finding new products, they invest money on that...they provide support related to manufacturing and developing new designs. [India 3 clothing]
[Suppliers] will tell you about what their other customers are doing, not necessarily just socks but other things as well. You can learn an awful lot; it doesn't have to be yarn people, it can be technical people about how to manufacture socks, the machine manufacturers and things. [UK 5 clothing]

It has been observed that suppliers are generally an important source of support in industries such as clothing where there is little internal R&D and innovation is primarily in production and materials (Möller & Törrönen, 2003; Aspers, 2010; Zucchella & Siano, 2014). It is therefore understandable that, compared to SMEs located in the other two industries, suppliers are

regarded by clothing SME leaders as important external supports for their internationalization (Bruce & Daly, 2011).

Among institutional links, assistance offered by government agencies and industry associations was mentioned with fairly similar frequency by SMEs in each industry and are not shown in Table 4. However, biotech SMEs tended to cite universities and research institutes more often than by those in the other two industries. These institutions are often the source of scientific knowledge for distinctive new biotech products as well as sometimes providing funding for their development through partnership in research programmes. In some cases, biotech firms are established by university researchers as spin offs of research findings/projects (Al-Laham & Souitaris, 2008). Research institutes can also be customers as well as offering overseas market assistance to biotech firms due to their close links with foreign research institutes, foreign networks and customers. For example:

Universities are very important to us because they're customers. And there's science emerging from the universities as well. [UK 29, biotech].

Regarding links with commercial service providers, the significance of consultants and venture capitalists for SME internationalization also varies between the three industries, though that of banks did not. Venture capitalists and consultants tend to be valued least by clothing SMEs and most by biotech ones. Biotech SMEs mentioned that consultants could offer overseas market assistance, especially for coping with foreign regulations, while venture capitalists could be critical for financing.¹¹ Almost by definition, venture capitalists were not normally involved with SMEs in a traditional industry like clothing. Software SMEs are often located in technology parks or in clusters close to other firms in the same field. They mentioned specific benefits that clustering provides for their internationalization. Some nearby firms are larger software producers that sub-contract the development of specialized software programs to the SMEs. Location in a technology park can also facilitate introductions to potential foreign customers and the securing of finance.

4.4. Home economy level of development, external links and specific forms of assistance provided

H5 states that the perceived importance for SME internationalization of different external links for the provision of specific forms of assistance will vary according to the home country contexts in which SMEs are located. Mann-Whitney U tests were conducted to examine the difference in the two categories of home country. Table 5 presents a disaggregated analysis which suggests that the rationale behind the hypothesis applies to some forms of assistance provided by some external resource providers but not to others. H5 as a general hypothesis is not supported because

there are only the 24 significant external links shown out of a potential total of 66 links. Again for the sake of economy, Table 5 only shows differences for which the probability of a chance occurrence is less than 10 percent.

Table 5 at back

Table 5 indicates that universities and research institutes, government support agencies abroad, and venture capitalists tend to play more of a role in supporting SME internationalization in the developed compared to emerging economies. Moreover, developed economy SMEs consistently tended to attach greater importance to the assistance afforded by external resource providers with respect to information on foreign markets, introductions to new foreign customers, access to foreign networks, and coping with foreign laws. The only category of external support for which emerging economy SMEs tend to attach more importance than SMEs from developed economies is financial assistance provided by core links: customers and market agents. For example:

Clients provide financial assistance through part payment or advance payment. [India 18, software]

Venture capitalists were sources of financial assistance almost exclusively for developed economy SMEs – only 7 percent of emerging economy SMEs had received any significant assistance from them. This reflects the limited availability in some emerging economies of financial and indeed other assistance for SMEs from institutional or commercial sources (Child, 2019). Where institutional sources were present, they could be ineffective:

The program of 'export support' [launched by the Egyptian government to enhance the exporting capabilities of Egyptian firms] was disastrous because of the corruption. [AME 4, clothing]

Although specific findings such as these are consistent with H5, comments made by interviewees indicate that there is scope to refine the hypothesis by taking account of more nuanced differences in the nature and quality of external resource provision highlighted by our disaggregated analysis. For example, while the overall importance of assistance provided by government support agencies tended to be rated higher by developed economy SMEs, specific components of that support could be evaluated differently. Their introductions to foreign networks and help in coping with foreign regulations were sometimes rated higher than the utility of their market information, which nowadays can increasingly be obtained from the internet.

5. Discussion

5.1. Contributions

We have addressed two research questions: (1) Which categories of external link contribute to the international performance of SMEs and does their relationship to international performance vary according to industry and home economy contexts? (2) Does the perceived importance of different external links for the provision of *specific* forms of assistance toward internationalization vary according to industry and home economy contexts?

Most of the SMEs studied report that their core market-based links assist their internationalization, while the percentage stating that they also receive such assistance from discretionary links is considerably smaller. This is consistent with some previous studies of SME internationalization (e.g. Jansson & Sandberg, 2008). Nevertheless, particular groups of SMEs considered specific discretionary links to be important providers of assistance, such as those to academic institutes and consultants in the case of biotech firms. The likelihood of selecting discretionary links as important for internationalization varied according to both industry and level of home economy development, while there was also industry variation only in the selection of one core link – suppliers.

Discretionary links were characterized by a more limited frequency of interaction and duration and often they may be dormant and only activated when needed. There are several possible reasons why SME decision-makers may disregard such links. They may not be aware of such assistance, may not value it, or not be sufficiently proactive in their networking. In some emerging economies, agencies such as government commercial offices in foreign markets and venture capitalists do not exist or are undeveloped, so that looking to them to support internationalization would not be a viable or attractive option.

Table 3 shows that for the sample as a whole, the international performance of SMEs is positively related to discretionary links but not to core links. These findings largely support extant studies (e.g. Chang & Webster, 2019) that indicate SMEs are more likely to generate international sales when they access a range of discretionary links to government, industry associations, and research institutes, as well as commercial professionals such as consultants and bankers. Insofar as internationalization involves the exploration of new technologies and markets, it may require SMEs to go beyond their normal core external links and initiate discretionary ones, such as through participating in government foreign trade missions and attending trade shows (Gerschewski, et al., 2020), in order to acquire specific forms of assistance to develop the new knowledge required for capturing new international opportunities. Although

core external links were those most frequently mentioned as important for internationalization, they do not invariably serve as significant sources of assistance for that process (Belso-Martinez, 2006). For example, existing customers may not be knowledgeable about new markets that an SME seeks to enter, or it may not enjoy a close and trust-based relationship with its customers, market agents or suppliers.

The identification of a larger number of important discretionary links is positively associated with international performance among clothing and biotech SMEs but not software firms. This result for software SMEs was unexpected and deserves further investigation. While many software SMEs stressed the importance of customer introductions to new clients for securing international sales, there was no evidence that this assistance impacted on their international performance. One possible explanation for this finding emerged from the interviews which is that once software firms engage foreign customers, their performance no longer benefits from assistance provided by existing customers or market agents. Rather, they can enhance their performance by using IT both to supply their products directly to clients and to control their adherence to contractual terms. This use of IT makes foreign market diversification relatively inexpensive and low risk, which might help to explain why one of our control variables, the number of market regions served, was a strong predictor of international performance among the software SMEs.

There was a positive relation between discretionary links and international performance among the SMEs from emerging economies, but not developed ones. Although SMEs from emerging economies less frequently identify discretionary links and their contributions as important for internationalization, when they did so it appears to impact positively on their international performance. Other studies already mentioned have indicated that institutional support and other discrete links are more limited in emerging economies, but our findings suggest that because they make a contribution to international performance, it is worthwhile for SMEs to find ways of accessing such support even on an informal or ad hoc basis.

The second research question concerns whether the perceived importance of external links for the provision of specific forms of assistance towards internationalization also varies according to industry and home economy contexts. We found through a disaggregated analysis that SME decision-makers do perceive specific links to differ in their importance as external resource providers with respect to the forms of assistance they provide. In other words, egocentric networking in support of internationalization is not a homogeneous activity. Measuring egocentric networking in composite terms overlooks the variety of contrasting attachments and

relationships with which a given SME can engage and the specific forms of assistance that particular relationships can offer to the firm. We have demonstrated this variation through numerical assessments and illustrated it with statements made directly by respondents. A disaggregated analysis therefore brings the researcher closer to the specific contextual circumstances that decision-makers have to take into account.

Disaggregation of our data indicated that the importance of specific external links and the assistance they provided for internationalization varies in some instances according to the SMEs' industry and home country development. Even in the case of customers which are consistently singled out as an important resource provider for internationalization, some important forms of assistance they provide are industry specific, which is congruent with the presence of distinct industry strategic recipes (Spender, 1989; Monaghan & Tippmann, 2018). However, the effect sizes reported in Table 2 suggest that the influence of home country context is the more robust finding likely to be replicated in further studies.

The design of this study has enabled it to advance beyond previous research by examining how more than one contextual feature influences external resource provision for SME internationalization. It embraces polycontextuality to the extent of taking two contextual factors into account – industry and home economy level of development. The findings show that both contextual factors play a role in predicting variations in the importance attributed by SME decision-makers to identifiable forms of assistance from specific core and discretionary external links. In so doing, they confirm the relevance of the theoretical perspectives that informed those hypotheses. Moreover, our attention to detail should assist further theoretical refinement.

The resource dependence perspective draws attention to the externally-sought resources that are essential to the business models and activities of SMEs located in different industries (Child et al., 2017). However, industry context was found to affect the importance attached to core external links only in the case of suppliers. On the other hand, there is greater inter-industry variation in the resource-providing importance of discretionary external links for SME internationalization. SMEs operating in knowledge-intensive industries tend to rely on more discretionary links providing diverse forms of assistance, if these are available. It also requires proactive and purposeful action on part of the SME decision-maker to form these links through adopting network broadening strategies (i.e. forming links with new and diverse network categories).¹² By contrast SMEs operating in a traditional industry may adopt network deepening strategies (i.e. retaining and nurturing relationships with existing network links) with core network links to access the sources of support they need (Vissa, 2012).

Our findings also confirmed the relevance of the munificence and institutional perspectives. The general association between a country's economic and institutional development can account for our finding that compared to their counterparts in emerging economies, the leaders of developed economy SMEs generally identify a greater range of institutional and quasi-institutional agencies that have assisted their firms' internationalization. Moreover, they tend more than their emerging economy counterparts to report that institutions such as universities, government support agencies abroad and the venture capital market provide valued assistance for their internationalization. This reflects a combination of superior resource munificence at the disposal of such agencies with their greater capability as deliverers. In other words, the benefits of environmental munificence are leveraged by the presence of capable institutions.¹³

Home economy institutions are a source of country-specific advantages for developed-economy SMEs which can be leveraged to provide firm-specific benefits when engaging in international venturing. In emerging economies such institutional support is more limited and/or may not be highly valued even when it is available (Narooz & Child, 2017). The relevance of the institutional perspective is also apparent in the finding that emerging economy SMEs tended to secure funding for international expansion from transactional partners such as customers and market agents rather than from the venture capital market, which is generally less developed in emerging economies.¹⁴ Our results are consistent with the conclusion that home-country economic development and institutional environment shapes the support infrastructure to which SMEs have access.

Industry environments vary in their munificence and this may also affect the availability of discretionary links to SMEs. There tend to be more opportunities to obtain external resourcing (such as venture capital) in high-tech industries such as biotech and software compared to traditional industries like clothing (Devigne et al., 2013). The availability of industry munificence is enhanced by the presence of industry-specific public policy strategies and institutions for its distribution. For instance, the UK government has a sector-specific strategy to support biotech firms (Hopkins et al., 2019). The state creates the necessary infrastructure and allocates needed resources to support entrepreneurial activities in the sector. Consequently, biotech SMEs tend to have a greater choice of discretionary links for seeking specific types of assistance. In other words, the utilization of discretionary links results not only from the resource requirements of industry-specific business models but also from institutionally related differences in industry munificence. Resource dependence and institutional perspectives offer a joint explanation in this instance.

Overall, our findings support the expectation that an SME's context can influence both the range of external links perceived to be of value for internationalization and the use that is made of them. The extent to which SMEs' evaluation of external links is associated with their international performance depends on their business needs, which are also context dependent. By advancing a contextually-informed perspective on SME egocentric networking and its relevance for international performance, they suggest the process depicted in Figure 1. This begins with the assumption that SME decision-makers can potentially access a range of core and discretionary external resource providers for their firms' internationalization. Core providers are available insofar as they are involved in ongoing market transactions with the firm. Their importance in providing assistance for internationalization, however, depends on whether they can meet an SME's resource needs, some of which are industry-specific. Discretionary external resource providers are not necessarily available or accessible. Their importance as sources of assistance for internationalization will depend on the SME's home country level of development as well as their capacity to meet industry-specific resource requirements. In these ways, the contexts in which SMEs are located shape their decision-makers' evaluations of the importance of external resource providers for internationalization. Their international performance is likely to benefit when these evaluations are consistent with business needs in international markets. This perspective, and its implications for the type of networking strategies SME decision-makers may adopt, warrants greater attention than it has so far received, and offers a potentially rich path for future research to take. Future research can draw on and integrate resource dependence, institutional and munificence perspectives to study networking in context.

Figure 1 about here

The present study's combination of a relatively fine-grained investigation of external links and their support for SME internationalization with an exploration of contextual influences, addresses several of the key limitations of previous research noted in the Introduction. It offers insights into polycontextuality and its effects. It extends the SME internationalization (Knight & Liesch, 2016; Lu & Beamish, 2001) and international entrepreneurship (Reuber et al., 2018) literatures by developing a context-specific egocentric networking model. It contributes to resource dependence (Pfeffer & Salancik, 1978; Hessels & Terjesen, 2010), environmental munificence (Castrogiovanni, 1991) and institutional theories (Doh et al., 2017) by examining the principal forms of assistance offered by SMEs' core (market-transactional links) and discretionary (institutional and commercial links) external links in different industry and home country contexts. While our findings largely confirm the relevance of existing theoretical

perspectives for contextual effects on external resource provision, preceding research had not demonstrated the nature of this relevance. Our contextually-informed perspective on SME egocentric networking is therefore a step forward which offers a platform for further research.

5.2. Limitations and avenues for further research

The present study has a number of limitations that further research could aim to overcome. First, it only progresses some way into an exploration of egocentric networking to assist SME internationalization. So, while it addresses the importance of external links in the provision of different kinds of assistance, it does not distinguish between resource providers located in home and foreign markets. Nor does it consider the intensity with which that assistance is sought and given, or whether this changes over time. For instance, are certain kinds of assistance, and their sources, sought more intensively at particular stages in an SME's internationalization? Is assistance relating to new market information or introduction to new foreign customers a more consistent requirement than, say, financial help which might primarily be critical at the time that foreign market entry is first undertaken? A natural extension of our study would be to investigate whether certain patterns of external resource provision predict internationalization performance in different contextual situations and at different stages of internationalization. A further issue deserving future investigation is the possibility that internationalization decisions aimed at extending an SME's current business are not isolated from its previous strategic decision making. This may mean that the networks which an SME utilizes to assist its investment overseas markets are actually the networks that enabled these SMEs to survive in the domestic market in the first place.

Second, our study represents only an initial advance into the study of polycontextuality and it leaves open several questions. One is whether polycontextuality should be understood in additive terms whereby the effects of individual contextual features are incremental to those of others, or whether these effects are potentially multiplicative. With one minor exception, our data do not indicate any interactive effects as between industry membership and home country level of development.¹⁵ However, this could be a consequence of the contextual features we selected for study. For example, one might expect to find interactive effects between other contextual features that share greater affinity, such as culture and institutional logics. An additional avenue for further contextual research arises from indications that institutional contexts were themselves multifaceted, as noted in the distinction between the formal presence of institutions and their actual capabilities to assist SMEs.

Another open question is how deterministic contextual conditions are for SME decisions on the use of external links. Industry and home country are two ‘spatial’ aspects of context which it is normally not feasible for an SME to vacate. The ability of a small firm to influence the conditions of this context is likely to be very limited and these largely have to be taken as ‘givens’ (Child and Rodrigues, 2011). We have therefore assumed that context establishes significant parameters for the actions SMEs adopt, but in practice these may not be entirely deterministic even for smaller firms. SME decision-makers interpret the situation in which they find themselves (Baron and Ensley, 2006). One would expect them to have a view on whether the potential benefits of available external links for their firm’s internationalization are worth the time and cost of developing them (Puthusserry et al., 2019). Their motivation to develop external links may also reflect how proactive they are towards internationalization as a strategic option (Freeman & Cavusgil, 2007). The more that an SME engages in internationalization endeavors, the more likely it will engage in purposeful selection of external links it perceives as crucial for accessing resources it needs (Larson, 1991). It may arrive at more than one solution that is economically viable.

This draws attention to the cognitive processes whereby SME decision-makers come to decide on initiatives to use external links and on the relationship-building processes through which external links are initiated and developed. Scholars have recently called for the incorporation into SME studies of both the international entrepreneurship [IE] focus on the individual decision-maker and the IB focus on the firm and its context (e.g. Fernhaber & Prashantham, 2015). A contextual perspective is potentially complementary to the focus of much IE research on the personal drive that entrepreneurs have to pursue internationalization in the first place. This drive should offer an insight into the general disposition of entrepreneurs to network in order to assist internationalization which is likely to reflect a proactive approach towards internationalization involving a degree of intentionality and planning. It suggests that a fruitful way forward would be to analyze SME networking behaviors in the light both of contextual contingencies and aspects of entrepreneurial experience and orientation along the lines advocated by Child and Hsieh (2014). Moreover, the present study did not distinguish between the firm’s external links and those personal to its decision-maker. Future research could aim compare the role of personal and more formal external links in assisting SME internationalization. The incorporation of entrepreneur-related factors into future research could provide the basis for a perspective on SME internationalization that is context dependent at multiple levels of analysis.

Third, the ways in which information technology is changing specific patterns of SME egocentric networking can be a further avenue for future research which the present study does not specifically address (Jean & Kim, 2020). Many of our respondents mentioned that they were now able to rely on the internet rather than direct external contacts for information on foreign markets and potential foreign agents and customers. Software SMEs in particular can benefit from the use of IT both to supply their products directly to clients and to control their adherence to contractual terms. The internet may also increasingly be compensating for limitations in the assistance that emerging economy institutions can provide to internationalizing SMEs. These are all questions that the further application of a disaggregated approach within a process-oriented longitudinal research design should help to answer.

Fourth, all research designs are a compromise between conflicting criteria and ours is no exception. We chose to work with a medium-sized sample of 180 SMEs which was the largest feasible for an on-site interviewed-based study given our resource constraints. This sample size is sufficiently large and diverse to identify potential contextual influences on networking, but not ideal to examine the detailed consequences of different combinations of the two contextual features on which we chose to focus. Each of the contextual categories we employed contains sub-categories which a larger sample could investigate without exhausting degrees of freedom. Our developed versus emerging economy categories each contained several different countries with their own contextual idiosyncrasies. Country-specific characteristics are likely to be consequential for the networking possibilities open to SMEs. Further detailed and context-sensitive investigation into these nuances is therefore warranted. Moreover, the international reach of our sample had limits; it did not include some important regions such as Sub-Saharan Africa and the Americas. Also it covered only three industries among the large number that exist in practice. A wider range of regions and industries might introduce more variance in our results and hence serve to refine the concept of 'egocentric networking in context'.

5.3. Implications for practice

Our study has implications for SME decision-makers as well as for the public policy support of SME internationalization. The relatively low average number of external links considered by the sampled SMEs to be important providers of assistance for their internationalization suggests that many are underutilizing their strategic opportunities to leverage networking with potential external resource providers. This echoes the observation of Stoain, Rialp, and Dimitratos (2017) that many SMEs might have access to networks but fail to capitalize on them. However, rather than assuming that it is optimal for an SME simply to maximize its number of external links, our

findings suggest that it is appropriate to adopt a more refined strategy for external resource provision which takes account of the SME's context. The detailed disaggregated findings provide practitioners with indications of how different types of external relationships can be utilized to suit the home country and industry contexts in which they are located.

Our results imply that when SMEs rely only on their core external links for assisting internationalization, this is not likely to enhance their international performance. Indeed, for SMEs located in emerging economies, emphasizing core links may lead to poorer international performance possibly because the information provided through such links, especially those with strong domestic market focus or limited international experience, will not be very helpful for the recognition of new international opportunities (Prashantham & Birkinshaw, 2015). By contrast, the use of discretionary links favours international performance in two of the three industries sampled (clothing and biotech) and in emerging economies. Overall, there is a good chance that an SME's internationalization can benefit from expanding its sources of external assistance beyond core links to discretionary, even though this may entail additional cost and effort.

Differentiating between the specific forms of assistance for internationalization provided by particular external links indicates that when SME decision-makers move beyond their core market-transacting relationships, they have to make a considered strategic choice. The main message of this paper is that the utility, and also the possibility, of non-core networking will depend on the firm's context. Regarding the utility of external networking, a clear example is the high significance of links with university and other research institutes for the internationalization business models of most biotech SMEs.

Emerging economies are of particular interest regarding their contextual influence on the possibilities of non-core discretionary networking. In emerging economies, discretionary networking tends to enhance the international performance of SMEs. However, accessing such support can be problematic. In addition to the generally less advanced development of institutional and commercial resource providers for smaller firms in emerging economies, the relatively uncertain environments of such economies may also limit the possibilities of SMEs making an informed choice between different external links. In such cases, it is important for SME decision-makers to maximize the utility of the network relationships they have at hand. Reliance on informal contacts may help compensate for the limited availability of formal institutional and commercial providers. Nevertheless, in conditions of uncertainty, a policy of responding to serendipitous networking opportunities rather than seeking them proactively, may be the more feasible option.

On the public policy side, the foregoing implications of our research for internationalizing SMEs are equally relevant for the advice that government trade promotion agencies can offer to SMEs. The key lesson here appears to be to avoid proffering ‘one-size-fits-all’ advice that disregards contextual variations among SMEs. In particular, trade promoters need to appreciate industry differences in the resources and external links that are crucial for SME internationalization. While cultural and institutional conditions in a foreign country may apply generally across industries, many market and technological factors, including customer requirements and availability of workforce skills, are likely to be industry-specific. This implies that trade promotion staff should be well versed not only in the general conditions of foreign economies, but also in the more specific characteristics of the industries in those economies.

SMEs reported that government support agencies in their home country were helpful in assisting SME internationalization more frequently than was the case for their overseas branches such as the commercial sections of embassies. This may primarily reflect the convenience and availability of the agencies’ home offices, but it could also point to a limitation in the capabilities of their overseas branches. In particular, few SMEs from the emerging economies reported that government agencies located abroad were important providers of assistance. The shortfall particularly concerned information on foreign markets, coping with foreign laws, introductions to potential customers, and access to foreign networks. This suggests a gap in emerging economies’ provision of governmental assistance, which is significant in view of the more limited availability in such economies of assistance from other institutions and from commercial providers. On-the-spot assistance for SMEs to connect with a range of overseas network links, including but not confined to potential customers, is likely to have longer-term benefit for the firms’ ability to expand in foreign markets. The quality and effectiveness of such assistance should be considerably enhanced by having officials in situ, located in embassies and overseas trade offices.

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Figure 1. A model of SME egocentric networking in context

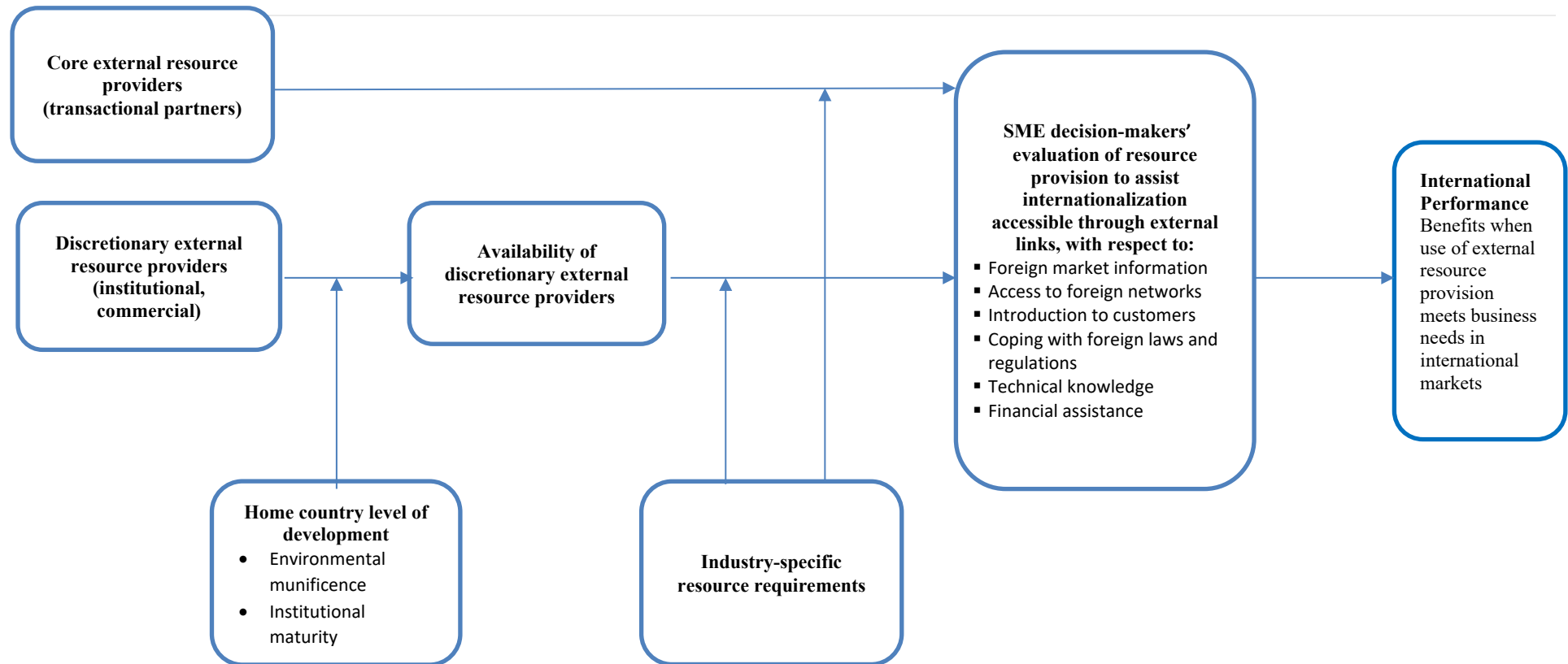


Table 1. External links mentioned as important in assisting SME internationalisation (N=180 SMEs)

Category of external link	Percentage of SMEs mentioning	Modal frequency of contact for links mentioned
Customers	83	Every 2 weeks
Market agents (distributors, local agents)	64	Monthly
Suppliers	43	Monthly
Government support agencies in home country	38	Quarterly
Industry and trade associations	34	Quarterly
Universities and research institutes	32	Monthly
Consultants	31	Monthly
Banks	28	Quarterly
Other nearby firms	23	Every 2 months
Government support agencies abroad	18	Between 2 and 4 times per year
Venture capitalists	15	Every 2 months
Miscellaneous (inc. family, friends)	7	Monthly

Mean number of external link categories mentioned: 4.1

Table 2. Average number of core and discretionary external links identified as providing important assistance for SME internationalization by industry and home country level of development

Context	Category of external links (mean score)				
Industry	Total	Core	Discretionary (total)	Discretionary (institutional)	Discretionary (commercial)
Clothing	3.85	2.17	1.68	0.93	0.75
Software	3.92	1.77	2.15	1.20	0.95
Biotech	4.53	1.78	2.75	1.57	1.18
Level of p for industry differences	0.20	0.01	0.01	0.02	0.06
Effect size (ω^2) * (One-way ANOVA)	0.01	0.04	0.04	0.03	0.02
Home economy					
Developed	4.53	2.01	2.52	1.46	1.07
Emerging	3.67	1.80	1.87	1.01	0.86
Level of p for home economy differences	0.01	0.08	0.02	0.02	0.16
Effect size (Cohen's d) * (T-Test)	2.26	0.80	1.91	1.25	1.01

* For Omega squared (ω^2) an effect size of 0.01 is usually considered to be small, 0.06 to be medium, and 0.14 to be large. For Cohen's d, an effect size of 0.2 is usually considered to be small, 0.5 to be medium, and 0.8 to be large (Lakens, 2013; University of Cambridge, 2021).

Table 3. Regression results: External links and international performance for different contexts

<i>Dependent variable:</i>		International Performance					
<i>Sample</i>	Total		Clothing	Software	Biotech	Developed Economy	Emerging Economy
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
<i>Control variables</i>							
Firm size (log)	.026 (.739)	.031 (.688)	-.033 (.826)	.030 (.809)	.023 (.863)	.194 (.101)	-.037 (.742)
Firm international experience	-.012 (.872)	.021 (.788)	-.068 (.625)	.276 (.028)	.113 (.396)	-.106 (.359)	.086 (.440)
Number of market regions	.269 (.001)	.266 (.001)	.159 (.277)	.421 (.001)	.200 (.131)	.281 (.009)	.218 (.036)
<i>External links</i>							
Core		-.081 (.282)	-.060 (.670)	-.121 (.316)	-.137 (.348)	.071 (.503)	-.225 (.041)
Discretionary		.192 (.012)	.333 (.019)	-.053 (.659)	.332 (.027)	.108 (.313)	.269 (.014)
R^2	.076	.110	.127	.283	.127	.159	.137
Adjusted R^2	.060	.084	.047	.215	.046	.109	.085
F	4.777	4.255	1.578	4.178	1.575	3.179	2.645
N	179	179	60	59	60	90	89

Standardized coefficients (β s) are reported with P values in parentheses

Table 4. Importance of external links for providing specific forms of assistance for internationalization, comparing SMEs in three industries

Variable	Mean importance scores			Level of p
	Clothing	Software	Biotech	
External links and assistance provided for SME internationalization				
Customers				
Introduction to potential customers	3.18	4.08	3.85	0.07
Access to foreign networks	2.73	3.55	3.65	0.05
Suppliers				
Market information	2.60	2.11	1.75	0.03
Financial assistance	2.05	1.47	1.37	0.00
Technical know-how	2.93	1.80	2.06	0.00
Universities/research institutes				
Market information	1.25	1.32	1.85	0.00
Introduction to potential customers	1.05	1.38	2.12	0.00
Access to foreign networks	1.10	1.40	2.42	0.00
Financial assistance	1.07	1.05	1.42	0.00
Technical know-how	1.53	1.60	3.23	0.00
Other nearby firms				
Introduction to potential customers	1.13	1.83	1.32	0.01
Access to foreign networks	1.27	1.73	1.47	0.05
Financial assistance	1.00	1.45	1.12	0.01
Consultants				
Introduction to potential customers	1.65	2.00	2.40	0.05
Coping with foreign laws	1.50	1.80	2.52	0.01
Access to foreign networks	1.55	1.93	2.37	0.02

Venture capitalists				
Market information	1.00	1.37	1.58	0.00
Introduction to potential customers	1.00	1.33	1.47	0.01
Financial assistance	1.10	1.72	2.07	0.01
Technical know-how	1.00	1.15	1.23	0.05

Levels of p are derived from the Kruskal-Wallis test. Only external links for which industry differences have a probability of $< .10$ are shown.

Table 5. Importance of external links for providing specific forms of assistance for internationalization, comparing SMEs in emerging and developed economies

Variable	Mean importance scores		Level of p
	Emerging economies	Developed economies	
External links and assistance provided for SME internationalization			
Customers			
Introduction to potential customers	3.10	4.31	0.00
Access to foreign networks	2.93	3.67	0.03
Financial assistance	2.61	1.69	0.00
Market agents			
Market information	3.54	4.20	0.03
Introduction to potential customers	3.21	4.37	0.00
Access to foreign networks	2.90	3.90	0.01
Financial assistance	2.23	1.46	0.00
Universities/research institutes			
Market information	1.36	1.59	0.02
Introduction to potential customers	1.23	1.80	0.00
Access to foreign networks	1.34	1.93	0.00
Government support agencies (home)			
Coping with foreign laws	1.40	1.88	0.06
Government support agencies (abroad)			
Market information	1.20	1.76	0.01
Introduction to potential customers	1.13	1.66	0.01

Access to foreign networks	1.21	1.94	0.00
Coping with foreign laws	1.29	1.89	0.02
Industry/trade associations			
Market information	1.77	2.24	0.05
Access to foreign networks	1.59	2.06	0.04
Coping with foreign laws	1.44	1.89	0.02
Consultants			
Technical know-how	1.57	2.20	0.01
Venture capitalists			
Market information	1.18	1.46	0.05
Introduction to potential customers	1.16	1.38	0.02
Access to foreign networks	1.16	1.46	0.02
Financial assistance	1.20	2.05	0.05
Banks			
Introduction to potential customers	1.13	1.02	0.06

Levels of p are derived from the Mann-Whitney U- statistic. Only external links for which country differences have a probability of < .10 are shown. There were no significant differences in scores for importance of assistance provided between the developed and emerging economies in the case of suppliers.

Endnotes

¹ The distinction between SMEs and MNEs is primarily one of size, insofar as many SMEs nowadays are multinational in the scope of their foreign business activities. The breadth of some SMEs' international operations, often underpinned by networks and overseas investment, has been captured by the concept of the 'micromultinational' (Dimitratos et al., 2003).

² Throughout this paper, 'resources' refers both to tangible forms such as finance and technical know-how, and to intangible forms such as information and relational capital. The terms 'resource provision' and 'assistance' are used interchangeably, as are 'external resource provider' and 'external link'.

³ Clothing is an example of a traditional industry in which advanced knowledge is not intrinsic to market offerings. Software and biotech firms, which respectively fall into Bell et al's knowledge-intensive and knowledge-based industry categories, rely more on advanced knowledge. Software firms tend to exploit existing advanced knowledge to develop new offerings. By contrast, for most biotech firms exploration of new knowledge is intrinsic to their market offerings of new drugs, and they are usually 'first-movers' in niche markets. However, when contrasting clothing as a traditional industry with the other two industries, we shall apply the shorthand term 'knowledge-based' to both software and biotech SMEs.

⁴ Firms were sampled from three Arab countries: Egypt, Jordan and The UAE in order to obtain the desired number of SMEs in each of the three selected industries. 9 out of the 10 clothing SMEs were located in Egypt, and 1 in the UAE. All the software firms were located in the UAE. 8 biotech SMEs were located in Jordan and 2 in the UAE.

⁵ Distinguishing between developed and emerging economies can be problematic as illustrated by the contrasting categorizations made by the United Nations and IMF. This is apparent in the case of Poland, and the extent to which it has completed its transition to a developed economy can be debated. However, it is arguable that in terms of its per capital income and level of institutional development, Poland is a developed economy. The World Bank classifies Poland as a high income country. Institutionally and politically, Poland is a member of the EU and a number of our respondents indicated that EU institutional regulations and supports were important for their business. While Poland, along with other Central and Eastern European economies, was considered to be emerging in the 1990s (Meyer & Peng, 2016), it is today classified as a developed economy by the United Nations – see http://www.un.org/en/development/desa/policy/wesp/wesp_current/2014wesp_country_classification.pdf.

⁶ In addition, 9% of the SMEs conducted foreign business through joint ventures, 8% through greenfield investments; 5% through R&D contracts, and 3% through franchising. Exporting is generally the most frequently used mode of foreign market entry by internationalizing SMEs (Paul et al., 2017).

⁷ 68 percent of interviewees were CEOs or chairpersons of their companies, 11 percent marketing directors, 9 percent other directors, while 12 percent held other positions. 71 percent of interviewees were owners.

⁸ The wording of the question was: "For relevant contacts (external links) only, please rate the importance of their contribution for each category of assistance along a scale of 1 to 7, where 1 = not at all important and 7 = very great importance. Please say why they are important or not, and how they have helped your firm's internationalization.

⁹ The fact that respondents were able to furnish information on the frequency of contact with the external links mentioned suggests that their selection of such links as providers of assistance was not spurious.

¹⁰ The numerical reference is to the specific company within its industry and country category.

¹¹ In addition, boards and advisory groups provide an important channel for external networking in support of internationalization among the biotech SMEs studied. These firms typically include in such bodies members from the scientific community, as well as those with connections to potential pharmaceutical customers and sources of venture finance. Through these and other vehicles such as scientific associations, biotech firms frequently have links with multiple external parties who offer a range of assistance toward their internationalization, in a manner consistent with the findings of previous studies of that sector (e.g. Powell 1998; Salavisa et al., 2012). The percentages of SMEs studied having boards were clothing 50%, software 60%, biotech 88% (for industry differences, $p = .000$). The percentages of SMEs having advisory groups/committees were clothing 10%, software 25%, biotech 58% ($p = .000$).

¹² In our sample, SME proactivity was associated with considering a greater number of external links to be important for internationalization ($r = 0.33$). It was more strongly associated with attaching importance to discretionary links ($r = 0.30$) than with core links ($r = 0.20$). Proactivity was indicated by whether the SME's initial internationalization came about through a proactive initiative rather than in reaction to a chance opportunity

¹³ This distinction between munificence and institutional capability was particularly relevant to the UAE at the time of the study. Among the selected emerging economies, the UAE had already become a financially munificent context but had not yet developed the agencies to translate this into effective support for SME internationalization.

¹⁴ One reviewer of this paper pointed out that the year 2018 marked the peak for China venture deals and that in fact China ranked as the world second largest venture capital market, including over 3,500 firms in that year. However, the data for the study reported in this paper were collected in 2014 and 2015 and at that time the access of SMEs to venture capital was limited (see Child, 2019; Malkin, 2021).

¹⁵ We carried out further analyses to examine a possible interaction effect between industry and the level of home economy development on the choice between core and discretionary external links. With the fairly marginal exception of commercial discretionary links ($p = 0.02$), there were no significant interaction effects between industry and home economy (for core links: $p = 0.99$; total discretionary links: $p = 0.29$; discretionary institutional links: $p = 0.90$).