



Supporting SMEs' internationalisation through a deeper understanding of Human and Technology Barriers: Applying Effective HRM processes from a developing-country

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Introduction

Researchers' attention is being increasingly attracted to the contributions made by small and medium sized enterprises (SMEs) to both national and international economies (Saridakis, Yanqing and Cooper, 2017; Vrontis, Bresciani and Giacosa, 2016). However, SMEs encounter numerous challenges, which include lack of capital (Naldi, Nordqvist, Sjoberg and Wiklund, 2007), operating in struggling economies (Bhana and Bachoo, 2011) and stiff competition in the internationalisation sphere (Conz, Denicolai and Zuchella, 2017; Hansen and Winther, 2014). Despite their numerous challenges, studies on SME's internationalisation are limited (Mustafa and Yaakub, 2018; Gunasekaran, Rai and Griffin, 2011). More worryingly, research on SMEs' desire to internationalise while making effective use of Human Resource Management (HRM) processes despite the technical challenges is lacking. . Although Mamoghli, Cassivi and Truddel, (2018) looked at the inter-dependence of IT and people and developed an iterative model based on a business's maturity/growth levels, their work is predominantly theoretically focused. Likewise, Ardito, Besson, Petruzzelli and Gregori, (2018) examined the usefulness and favourability of IT on business performance but failed to recognise internationalisation from a developing country perspective. Although they used a number of hypotheses and conducted empirical work, they are yet to produce a model that is data and conceptually driven (Mendy and Rahman, 2019). In spite of the efforts made by El Makrini (2015) in this direction, Booltink and Saka-Helmhout (2018) and Kim-Soon et al. (2017) focused on the role of innovation and technology in boosting SMEs' performance (Edmondson. and Harvey, 2018), whilst generally neglecting internationalisation.

Internationalisation is defined in the literature as involving business activities and trade between geographic boundaries. Within these are processes through which companies try to increase their enterprise's activities beyond their borders (Welch and Luostarinen, 1988) or when adaptations are made to their firm's operations externally (Prashantham, 2005). Those who adopt a historical view highlight the importance of market relationships across national borders (Ruzzier Antončič and Konečnik, 2006). However, others who adopt a traditional definition consider a business's export strategy as pivotal (Kamakura, Ramón-Jerónimo and

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3 Gravel, 2012). Yet, strategy alone is not enough as it failed to look into the actual process of
4 internationalisation (Grandinetti and Mason, 2012) and other aspects/items. Recently, other
5 researchers perceive internationalisation as a sum-total of economic-type activities geared
6 towards the expansion of a business's operations externally (Ruzzier *et al.*, 2006). Despite
7 attempts made on definitions, there is no consensus on the real meaning of SMEs'
8 internationalisation (Vissak and Zhang, 2012) not just the role of 'human capital' on
9 performance as perceived by Dar and Mishra, (2019) and Mamoghli *et al.*, (2018), among
10 others. Sometimes, theoretical postulations are offered without much regard to practical
11 elements (see Ardito *et al.*, 2018). In this current paper, we take the perspective that
12 internationalisation comprises economic-related activities that firms use in their business
13 attempts to mobilise inward products and services for external destinations.
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23 Some of the economic variables perceived to be crucial for internationalisation include
24 entrepreneurial and employee commitment (von Bonsdorff, Janhonen, Zhou and Vanhalad,
25 2015), leadership and trust (Top, Akdere and Turcan, 2015) and cross-border teams
26 (Edmondson and Harvey, 2018). Part of the problem here is that these issues have been treated
27 in isolation and mainly in large firms. This calls for a more balanced treatment of the issues
28 raised particularly in small and medium sized enterprises that also wish to internationalise their
29 firms' operations. Other researchers have pointed out the role that strategy (Ulrich and
30 Dulebohn, 2015) and talent and skills management can play in internationalisation and
31 development of not only SMEs (Ren *et al.*, 2015; Krishnan and Scullion, 2017) but MNEs as
32 well (Morley *et al.* 2015) from . Recent attempts to remedy some of the missing aspects
33 highlighted initiatives to address herding behaviour (Shah *et al.* 2017) or other barriers
34 (Rahman, Uddin and Lodorfos, 2017), risks (Kola and Kodongo, 2017) and problems (Quaicoe
35 *et al.*, 2017). Other recent attempts within small business research include the identification of
36 differences in practices and processes within the informal sector (Williams and Horodonic,
37 2016) and the effects that leadership can have on their entrepreneurial development (Zhou *et*
38 *al.*, 2017) and the performance of family-type SMEs (Lwango, Coeurderoy and Giménez
39 Roche, 2017). Despite the measures and perceptions there is room for further development in
40 relation to the human processes of SMEs' internationalisation within a developing and
41 emerging market context (Mendy and Rahman, 2019).
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56 Other efforts have looked at various approaches to talent management and development from
57 an SME perspective (Krishnan and Scullion, 2017) or even an MNE angle (Morley *et al.*, 2015;
58 Festing *et al.*, 2013) to rectify what is missing. Recently, Ramirez-Portilla, Cagno and Brown,
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(2017) have proposed the use of open innovation, SmartPLS software approaches find out about the performance of SMEs within the automotive industry. However, a plethora of studies still looks at MNEs more than the attention received by SMEs in attempts to internationalise business operations. When they do so, researchers have adopted a developed country perspective (see Giacosa *et al.*, 2018). Other studies in the HRM area indicate the need to combine a set of practices in the form of ‘bundles’ as it is believed that the configuration of human resources with an organisation’s externalities can enhance processes of organisational business performance (Mustafa and Yaakub, 2018; Lepak and Snell, 1999). Since Pfeffer’s (1998) identification of the effects of HRM practices on workplace outcomes (e.g. performance, productivity, productivity and so on) via ‘high performance work systems’ (Huselid, Jackson and Schuler, 1997) or high performance work processes (Rogers and Wright, 1998) looking at SMEs from a developing country angle is still neglected. It is high time to remedy such neglect to see what they can contribute to our understanding and knowledge.

Therefore, there is need to combine people/HRM systems and practices and technology to study SMEs’ internationalisation.

Literature Review

Configuration Model of HRM

The configuration model is extracted from HRM. It seeks to highlight a fit between HRM, strategy and the organisation’s external (i.e. international) environment. It is assumed by proponents of the model that such a relationship shapes organisational business outcomes, their successes (e.g. their performance) and failures (e.g. their barriers to performance – Mendy and Hack Polay, 2018). This model has been chosen because it highlights not only business context but also additional aspects that have not been looked into by previous studies on SMEs’ internationalisation. These are HR/people-related strategy to find out the extent to which it ‘fits’ with or enhances success (Delery and Doty, 1996). The latter is generally taken in the literature on SMEs to refer to business performance (Adomaku *et al.*, 2018) and social value creation (Mendy, 2019; Porter and Kramer, 2011). It is thought that such configuration will impact positively and ensure performance (Huselid, 1995; Delaney and Huselid, 1996; Boxall and Purcell, 2003; Gerhart and Fang, 2005). Whether this performance aspiration can be validated through some design (Ardito *et al.*, 2018; Ramirez-Portilla, *et al.*, 2017) or model is yet to be shown. However, scholars have attempted to demonstrate the role of model use in lowering turnover (Guthrie, 2001), enhancing organisational effectiveness (Delery, 1998)

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3 through the intermediating role of leadership (Subramony, Segers and Chadwick, 2018) and
4 marketing, product development and dissemination (Hu, Shen and Sun, 2018). However,
5 technology issues are not mentioned.
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10 However, there is an ongoing debate and discussion on the characteristics and benefits of the
11 configuration model in SMEs, prompting us to ask the question ‘what combination of HRM as
12 well as business bundles could best deliver alignment?’ Put differently, ‘is a combination of
13 HRM policies and technology use the best configuration model to deliver an organisation’s
14 intended outcomes?’ Despite positive claims to ensuring performance (Huselid, 1995), the
15 extent to which human and technological issues are examined and aligned during SMEs’
16 internationalisation is yet to receive adequate research attention.
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24 In their attempts to bring some clarity to the notion of ‘fit’ in internationalisation, Lepak and
25 Snell (1999) maintain that the configuration model should focus simultaneously in combining
26 four areas if firms are to benefit from it. These areas are namely 1) commitment-based
27 (knowledge intensive, extensive training and development schemes, core set of knowledge
28 workers who enjoy loose job descriptions, job-designs and performance-related pay); 2)
29 productivity-based (internally selected, skills are not competitively advantageous to the
30 organisation, staffing and task-focused rather than developmentally focused); 3) compliance-
31 based (human capital is not of high value, fixed- term-tasks may be contracted out for greater
32 flexibility) and 4) collaboration-based (alliances and partnerships create added value, R & D
33 and information sharing are encouraged to cut costs). In line with Lepak and Snell’s (1999)
34 earlier attempt at configuration, most researchers tend to look solely into performance while
35 ignoring other aspects such as internationalisation. For example, Kim-Soon et al. (2017)
36 highlighted the positive impact of innovation and technology whereas Mustafa and Yaakub
37 (2018) identified some dynamic capabilities needed in volatile market conditions. Although
38 similar to Lepak and Snell (1999), Blonigen and Taylor, (2000) highlighted such dynamism in
39 terms of product development. Central to the propositions on SMEs’ growth and development
40 it is ascertained that technology and innovation constitute capabilities central to SMEs’
41 innovation and performance (Maes and Sels, 2014). However, acknowledging the potential
42 barriers especially within the internationalisation space is missed. Although Mustafa and
43 Yaakub (2018) signalled that the human resource component could pose a difficulty they did
44 not specify how this might be – that is, in the form of a model or some theory for SMEs’
45 internationalisation. Dar and Mishra (2019) identified ‘human capital’ but clarity is lost when
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3 the term is used to cover aspects ranging from educational capacity to skills development as
4 enablers (Ren *et al.*, 2015) of performance (Booltink and Saka-Helmhout (2018). Something
5 more special is needed in SMEs' hostile operating environment (Hansen and Winther, 2014).
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10 After due consideration of relevant literature, we have subsumed each of the aspects of Lepak
11 and Snell's configuration model into four main variables or hypotheses (to test the relationships
12 between people and technology during SMEs' internationalisation), something not attempted
13 in previous studies. These are namely language (H1a), social perspective (H1b) as part of
14 commitment, skill (H1c) and training as part of productivity (H1d) and finally infrastructure
15 (H2a), ICT (H2b) as part of compliance, warehouse facility (H2c) and R & D (H2d) as part of
16 collaboration. Each of these is examined independently within the SME literature and limited
17 studies have highlighted the human-technology aspects in SMEs' internationalisation from an
18 emerging economy's perspective. Each of these constructs/factors is examined in greater detail
19 to establish what has been missing in the configuration debate situated within the human -
20 technology distinctions of SMEs' internationalisation as follows.
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30 Skill generally includes the capability or the development of the capacity to do something. In
31 this paper, the latter is taken to apply to the context of a small or large firm's business activity
32 (Jasra, Khan, Hunjra, Rehman and Azam, 2011). Although it might be perceived that skill is
33 available worldwide, the availability of educational and training-type facilities is not generally
34 the same worldwide. Small and large businesses stand the possibility of benefiting
35 differentially not only in its acquisition but also in its dissemination and maintenance (Roza,
36 Van den Bosch and Volberda, 2011). SMEs are generally understood to struggle in acquiring
37 the requisite skilled labour, in retaining and developing its skilled staff (Dutta and Sobel, 2016).
38 When this happens barriers to internationalisation are rendered more problematic
39 (Hadjimanolis, 1999) thereby adding to socio-cultural constraints (Dreher and Gassebner,
40 2013).
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50 Language serves as a medium of communication between people and firms. Within the
51 business context, communication is used to build and maintain relationships thereby rendering
52 businesses that fail to do so efficiently unhealthy. This tool becomes ever so important in an
53 international trade context, where more countries are involved in the process (Mendy and
54 Rahman, 2019). In addition to the language barrier (Morgan and Katsikease, 1997), there is an
55 additional socio-cultural barrier commonly encountered by SMEs during internationalisation
56 and this includes the use of different social approaches (Erramilli and Rao, 1990; Weaver and
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3 Pak, 1990). Again, the approaches and processes used vary from one country's border to the
4 next. Likewise, different social customs and attitudes have differential impacts (positively or
5 negatively) on the nature of a firm's business. Perspectives are divided or lack clarity. For
6 example, while Buono and Bowditch, 2003; Chatterjee, Lubatkin, Schweiger and Weber, 1992;
7 Datta, 1991; Olie, 1994; Weber *et al.*, 1996 view this aspect negatively, Krishnan *et al.*, 1997;
8 Larsson and Risberg, 1998; Morosini *et al.*, 1998 and others have asserted that the socio
9 cultural diversity enables the creation of value if the necessary processes are adopted (Mendy,
10 2019). However, other researchers have paid muted attention to the social aspects of SMEs'
11 internationalisation (Booltink and Saka-Helmhout, 2018; Gunaratne, 2009; Okpara and
12 Koumbiadis, 2010). Based on the differing perspectives, we recognise the vital linkage between
13 language and socio-cultural issues and conceptualise them as barriers of internationalisation
14 given their problematic nature in the context of developing countries' SMEs.
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26 Warehouses play a vital component in a country's or business's value-creation process. This is
27 reflected in the way their availability renders a firm's products/goods readily available at the
28 appropriate timing and situational setting (Lambert and Stock, 1993). It therefore behoves that
29 the lack of such a useful facility can render the internal production and external procurement
30 alignment process a problem (Lepak and Snell, 1999). Firms tend to surmount such a difficulty
31 generally by investing in custom and tailor-specific Research and Development ventures
32 (Pisano, 1990) so as to render them more dynamic in the face of competition (Mustafa and
33 Yaakub, 2018). Therefore vital as the infrastructure and ICT of a country may be to the physical
34 fabric for businesses and society (Kim-Soon *et al.*, 2017) it is not the panacea to
35 internationalisation barriers. However, developing countries generally tend to have inadequate
36 infrastructure or ICT (Okpara and Kabongo, 2010) capabilities and facilities (Apulu and Ige,
37 2011) and these could cause additional barriers to business (Fleenor and Raven, 2011)
38 especially as international competitors might have an edge in this area. Based on the available
39 literature, inadequate infrastructure and lack of good ICT facilities are considered as key
40 barriers faced by SMEs' internationalisation.
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53 Despite their claims, this study explores the two sets of barriers in relation to the configuration
54 model of HRM to see what these can add to our understanding of the internationalisation of
55 SMEs as they encounter people and technology-oriented barriers. The extent to which HRM
56 practices and processes are configured and whether these are adapted to small firms' business
57 situation/context is an unresolved issue. Therefore, a key question to be answered is 'what
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3 combination of HRM as well as business bundles could best deliver alignment' or 'is a
4 combination of HRM policies, business strategy and organisational context always the best
5 configurational model to deliver an organisation's intended outcomes?'

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10 Such attempts to understand what the configuration model could contribute start with the
11 human resources that constitute the resource-based competencies of people (Wernerfelt, 1984;
12 Barney, 2001) as Mustafa and Yaakub also concurred (2018). It is opined that their acquisition
13 and proper organisation will lead to talent management and staff retention as well as their
14 professional and competency development (Boxall, 1996; Horgan and Muhlau, 2005;
15 Marchington and Grugulis, 2000; Dolan, Mach, and Olivera, 2005). These are thought to
16 resolve some of the constraints as an innovative process (Ramirez-Portilla *et al.*, 2017). Those
17 who propound this view assume that an organisation has to align its HRM systems in the way
18 staff are selected, trained, appraised and rewarded (Snell, 1992) to enhance dynamic 'human
19 capital' (Dar and Mishra, 2019). This is based on an assumption that all firms observe such
20 people practices. The reality is that smaller firms do not have such a luxury mainly due to
21 resource constraints. Others highlight the role of the external environment and what it could
22 contribute (Lepak and Snell, 2002; Guest, 2001). One of the un-intended consequences of the
23 polarised nature of the debates is that organisations tend to be either process or outcome-driven
24 in terms of which configurational HRM policies they emphasise on and therefore adopt. Those
25 that adopt the former tailor and align their HRM procedures in line with job descriptions, job
26 (re)design, performance appraisals and reward systems (Dyer and Reeves, 1995). Companies
27 that are driven by outcomes (e.g. performance) focus on staff commitment and involvement,
28 and engaging in a process of rewarding them to gain such involvement in their people
29 management strategies (Kamakura *et al.*, 2012). Whether these processes are adequate in
30 achieving the intended outcomes especially within an SME context as ascertained by Dar and
31 Mishra (2019) is another issue.

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51 Configuration theorists posit that HRM policies, procedures and processes should be
52 formalised and adopted as part of a coherent set of practices. One essential way via which these
53 practice-orientated bundles are formalised in a process is through language or social practices,
54 which over time might become an accepted norm. However, they may be resisted by an
55 organisation's members. When acceptance is the case, language and social norms and beliefs
56 become part of the culture over time (Okpara and Kabongo, 2010) or, if one wills, part of an

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3 organisation's tradition and the way its people have made sense of their environmental situation
4 (Berger and Luckman, 1967). If they do not, then further research is needed to find out why
5 although this seems missing (Hansen and Winther, 2014). Part of the latter case is observable
6 when resistance abounds. Sub and sometimes counter-cultures might highlight additional
7 process-related issues for businesses and society (Hofstede, 2001), not least family firms
8 (Santoro, Ferraris, Giacosa and Giovando, 2018). Though Hofstede (2001) and some of his
9 followers did not consider the HRM element as crucial, this research notes this aspect as one
10 of the fundamental barriers of internationalisation especially from an emerging economy
11 perspective. The extent to which HRM practices are adapted to a business's situation/context
12 is an ongoing discussion.
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20 21 ***Conceptual Model Development*** 22

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24 It is the general norm that when one wants to develop a model that might work in practice the
25 first key stage is to identify the limitations of previous attempts in selecting the components.
26 Other researchers have questioned the effectiveness of some business and work practices that
27 should be included (Phillips, 1996; Foot and Hook, 1999). Secondly, once the right types of
28 employees that need to be included are available, they should be motivated using the 'best
29 practices' that are perceived to yield an increase in performance (Paul and Anantharaman,
30 2003). If this does not work, Patterson *et al.*, (1997) and others advised a (re-) organisation of
31 not only the people activities but also work and information sharing processes involved so as
32 to benefit from outputs (Perkins and White, 2011; Armstrong, 2015), something sorely missed
33 by Dar and Mishra (2019), Booltink and Saka-Helmhout (2018) and Mamoghli *et al.*, (2018).
34 This might include a firm's financial profitability and people's preferences (Campbell and van
35 Wanrooy, 2013 Perkins and White, 2011) as well as the extent to which people and non-people
36 aspects interact (Marsden and Dickinson, 2013; Gerhart and Fang, 2005). Therefore, studies
37 on the barriers to increasing performance levels (Ardito *et al.*, 2018; Koch and McGrath, 1996;
38 Pfeffer, 1995) also need to (re)focus on the 'outward' activities of firms' internationalisation
39 (Perkins and White, 2011; Heywood, Siebert and Wei, 2010). See Figure 1 below for an initial
40 identification of the various aspects of the two major barriers (technology and people) and how
41 they have been used to develop the study's model.
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3 Although configuration theory highlights the importance of HRM practices, policies and
4 processes, there is lack of consensus as to how such practices may be formalised and via what
5 mechanisms. The use of language or social practices might over a period of time become
6 accepted or sometimes resisted by an organisation's or business's members. When accepted
7 the language, social norms and beliefs become part of the firm's culture (Okpara and Kabongo,
8 2010) or what has been categorised as a business's tradition (Berger and Luckman, 1967;
9 Meyer and Rowan, 1977). When such traditions are not accepted they may constrain
10 developmental aspects (Dar and Mishra, 2019). However, whether HRM practices become
11 accepted as a firm's set of beliefs and norms in the face of hostile external competition is still
12 under debate and discussion (Hansen and Winther, 2014).

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21 On the basis of relevant aspects of Lepak and Snell's (1999) configuration model and SMEs'
22 internationalisation literature, the study's following hypotheses are associated with human and
23 technological barriers as developing countries' SMEs' are trying to internationalise their
24 businesses. The people-orientated barriers are sub-categorised into four areas namely language
25 (H1a), social perspective (H1b), shortage of skilled labour (H1c) and shortage of
26 education/training facility (H1d) whereas the technological barriers include four components
27 namely adequate infrastructure (H2a), developed ICT (H2b), warehouse facilities (H2c) and R
28 & D (H2d) respectively.

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37 *H1a. As a human-oriented barrier, language differences impact on the internationalisation*
38 *efforts of SMEs.*

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41 *H1b. As a human-oriented barrier, social perspective impacts on the internationalisation of*
42 *SMEs.*

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46 Skill is the ability or the capacity to be able to do something and this might be in the context
47 of businesses activity (Jasra *et al.*, 2011). However, despite its ubiquitous availability,
48 educational facilities are not the same globally and large and small firms may profit
49 differentially in its acquisition and maintenance (Roza *et al.*, 2011). SMEs might struggle in
50 such skilled labour acquisition or its development (Dutta and Sobel, 2016) further cementing
51 barriers to internationalisation (Hadjimanolis, 1999) and creating socio-cultural rifts (Dreher
52 and Gassebner, 2013). The inadequacy of resources and shortage of training and educational
53 facilities do not bode well for SMEs' innovative capacity (Maes and Sels, 2014; Edmondson
54 and Harvey, 2018). Although Okpara and Kabongo (2010) and Kim-Soon *et al.* (2017) did not

consider such a barrier as crucial, this study proposes that the shortage of skilled labour and the necessary educational facilities need to be noted as barriers of internationalisation in the context of developing countries' SMEs. In the light of the above, the following hypotheses are proposed:

H1c. As a human-oriented barrier shortage of skilled labour impacts on the internationalisation of SMEs.

H1d. As a human-oriented barrier the shortage of educational/training facility impacts on the internationalisation of SMEs.

Infrastructure and ICT of a country is the supporting physical structure for the society or business. Lepak and Snell (1999) identified this aspect in terms of 'collaboration', alliance building, information sharing through R & D and cost-cutting schemes. The 'commitment' aspect of Lepak and Snell's (1999) model also takes due account of training and development. Due to the economic constraints, developing countries may not have adequate infrastructural or ICT facilities and these could cause serious barriers for the business development (Fleenor and Raven, 2011). Although inadequate infrastructure and lack of developed ICT is an important barrier both for national and international business, internationalisation may face further challenges coming from the international competitors having better technological and communication facilities, an aspect least focused on in the literature on people and technology (Mustafa and Yaakub, 2018). Therefore, inadequate infrastructure (Okpara and Kabongo, 2010) and lack of improved ICT (Apulu and Ige, 2011) are considered as the key barriers for the internationalisation of SMEs. Despite this importance, some studies ignored inadequate infrastructure and lack of ICT development (such as Rahman et al. 2017). Considering the important link between these two factors as technological barriers, the following hypotheses are proposed:

H2a. As a technological barrier, the shortage of adequate infrastructure impacts on the internationalisation of SMEs.

H2b. As a technological barrier, the shortage of developed ICT impacts on the internationalisation of SMEs.

As warehouses play an important role in creating values for the firms by making the product available at the right time and right place (Lambert and Stock, 1993), lack of such a facility

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3 can create additional challenges in terms of the productivity and compliance aspects raised by
4 Lepak and Snell (1999) and the performance process (Apulu and Ige, 2011). To tackle
5 additional challenges firms invest in customised R & D initiatives (Pisano, 1990) which could
6 be insurmountable for resource-constrained SMEs particularly in developing countries such as
7 Bangladesh. Such resource constraint is highlighted by Lepak and Snell (1999) in terms of
8 'compliance' as a way of flexing the human capital of a firm, given the constraints faced by
9 SMEs. In the light of above discussions, the following hypotheses are proposed:
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19 *H2c. As a technological barrier, the lack of warehouse facility impacts on the*
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23 *H2d. As a technological barrier, the lack of R & D impacts on the internationalisation of SMEs.*
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28 **Methodology**

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31 This study has derived aspects of barriers to SMEs' internationalisation from the literature and
32 combined these with the empirical findings to develop a model to study Bangladeshi SMEs'
33 barriers to entering foreign markets. A model is formulated and is empirically testable. To be
34 able to do so, we attempted to measure whether there is a causal network relationship within
35 the context of Bangladeshi SMEs' internationalisation. To carry on the empirical investigation,
36 a cross-sectional survey technique was applied to extract views from the 212 respondents
37 (Malhotra, 2008). To achieve the maximum response rate a postal survey was applied rather
38 than other methods (Malhotra, 2008) so as to help our appreciation of situational and causal
39 explanations, otherwise not offered by the SEM or other studies (Hofstede, 2001; Okpara and
40 Kabongo, 2010).
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50 Based on the suggestions from the participants during the piloting stage, this study collected
51 data from international SMEs only. This could be viewed as a limitation as it raises issues of
52 potential sample selection bias. However, it could be better to have data from firms that are
53 thinking to expand in international markets as this was our principal research objective rather
54 than focus on data from firms that have no intention whatsoever of internationalisation. The
55 researchers recognised that combining internationalisation and non-internationalisation firms
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would have added confusion and led to a multi group analysis (MGA) thereby going against the variance based analysis used here. The latter is suitable for smaller sample size as ours in order to facilitate the analysis of complex relationships. This allows two or three or more variables to be analysed as factors depend on each other while at the same time measuring some constructs by some other indicators (e.g. the 8 individual items/factors). The latter aspect is commonly used in SME research (Dar and Mishra, 2019; Bootink and Saka-Helmhout, 2018), the former is not.

Questionnaire Survey

This study collected survey data from four major divisions of Bangladesh – Dhaka, Khulna, Chittagong and Rajshahi from July/2011 until September/2011. A total of 1000 questionnaires were equally distributed among four major divisions in the tradition of a cluster sampling technique. From each division, districts were selected and from each district, villages or wards of the four major city corporations were selected, and, finally, international SMEs were selected from each village and each ward. For the sake of equal opportunity for selection, we applied systematic random sampling technique. The survey population consisted of SMEs in Bangladesh from who are engaged in international business. Out of 1,000 219 questionnaire responses were returned. Out of these, seven were considered unsuitable for this study as they contained too much missing data. We reported and analysed the 212 questionnaires and Table 1 shows that the data are representative of a cross-section of the Bangladeshi population and business types.

Please insert Table 1 here...

We measured all the items included in the questionnaire in a five-point Likert-scale. Before we collected the final data set, we conducted a pre-test among 20 samples and five academics were invited in the process to ensure a number of research elements, namely the appropriateness of the wording, its contents, its scales, its sequence and format. Very minor amendments were highlighted and made on the basis of the pre-test and its outcomes. The latter identified the technological and people barriers faced by SMEs in entering the foreign markets and processes involved. This is used as the current paper's model. Hierarchical construct (also known as the multidimensional construct) is defined in this current paper as a construct with a range of

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3 dimensions at various hierarchies so as to capture an overall latent variable (Jarvis *et al.*, 2003).
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5 In our case, we are referring to the human and technological aspects of internationalisation.
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9 This study used 8 items/factors from a questionnaire to examine human and technology related
10 barriers of internationalisation for SMEs from a developing country context. All items of the
11 questionnaire were based on existing literature (see pp. 3 – 11). Prior to the data collection, the
12 content validity of the internationalisation-related questionnaire was confirmed through review
13 request among experts including independent researchers, academics, various owners and
14 managers of SMEs. Minor amendments were made on the basis of the outcome of the pilot
15 study. Before the final data collection, pre-testing was conducted on 10 willing and potential
16 respondents to ensure the questionnaire is free from confusion, awkwardness and offence.
17 Based on their suggestions, smaller groups were created rather than too many questions under
18 one heading.
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27 *Insert Table 2 here...*
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31 Table 2 above shows a representation of the equations for estimating the hierarchical
32 representations on these two barriers. The equation for the first-order representation specifies
33 first-order MVs (y_i), latent variable (η_j), loadings (Δy) and an error term (ϵ_i). The equation of
34 the first order factors (e.g. people and technology) are repeated in the second-order factors (e.g.
35 see items summary in Table 3 and Figure 2) which consist of the second-order latent variables
36 (ξ_k). Error (ζ_j) in the first-order factor and second-order latent variable loadings (Γ) is included
37 in the repeated calculations. The selected 8 items are significant both as categorical and overall
38 barrier-factors (e.g. human and technology) as first and second order item loadings. All the
39 item loadings were calculated and found to be significant which is higher than 0.70.
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48 **Findings**

49 The study's findings were presented using the following three steps 1. How to develop a
50 measurement model to see the extent to which people and technological factors pose barriers
51 to SMEs' internationalisation; 2. How to develop a hierarchical construct model to ascertain
52 which of the people and technological aspects could be classified as first and second order in
53 terms of SMEs' internationalisation and 3. How to assess the reliability and validity of the
54 model. In the first stage, an evaluation/analysis of the model measurements is conducted, in
55 the second an evaluation/assessment of the model is carried out and finally the testing of the
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3 relationships in the model enhanced the study's model contribution. The validity and reliability
4 of these findings were ensured by following this step-procedure prior to drawing any
5 conclusions on the hypothesised relationships on each of the 8 tested items/factors of SMEs'
6 internationalisation (Akter *et al.*, 2016).
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12 This study used several modification approaches (dropping items and application of variance-
13 based analysis) to develop an appropriate structural model to examine people and technology
14 related barriers of internationalisation. These approaches are consistent with several PLS SEM
15 based studies. For example, the final model was modified by dropping two items (religious
16 differences and gender differences) because of lower item loadings and R square values
17 following Dinger *et al.* (2015) and Chandra *et al.* (2012). Other studies have used a similar
18 modification approach by dropping constructs (such as, Tan *et al.*, 2013) or adding a new
19 construct (such as, Sykes, 2015). Because of these modification approaches, the results of this
20 study are very strong as they indicate item loadings that are above the expected threshold which
21 is 0.70 (see Figure 3).
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30 The three steps identified above included evaluation/analysis of measurements, assessment of
31 representation and testing representational relationships for the purposes of data and results
32 validity and reliability. This was conducted before drawing any conclusions on the nature of
33 the hypothesised relationships (Akter *et al.*, 2016). The hypothesised relationships of this study
34 are complex with a number of variables and dimensions. Therefore, this study used a structural
35 model as an alternative to the first generation regression techniques, which emphasises the
36 importance of comparing variables (be they independent or dependent) and then analysing the
37 linkages between them as a predictor of barriers of internationalisation. By using the second
38 generation analytical technique, we found how two apparently different types of variables (e.g.
39 human and technology) can both be dependent on each other to help measure as appropriately
40 as possible what the actual barriers to internationalisation are. However, with the advent of
41 second generation technique, SEM provides the opportunity to model multiple aspects of
42 relationship constructs at the same time.
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54 Although there are different SEM approaches, this study used repeated indicator approach to
55 estimate the various aspects of the human and technology constructs simultaneously rather than
56 the distinct estimation for higher-order and lower order dimension with reflective mode of
57 measurement (Mendy and Rahman, 2019).
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3 Considering the nature of the data, this study used component based structural model because
4 “PLS can successfully avert the constraints on distributional properties (multivariate
5 normality), measurement level, sample size, model complexity, model identification and factor
6 indeterminacy” (Akter *et al.*, 2016; p. 121). To investigate the human and technological barriers
7 of internationalisation this study has used PLS graph 3.0 (Wetzels *et al.*, 2009) in order to
8 capture and represent the complex relationships between all the factors in the 8 variables. By
9 using the hierarchical model with PLS path modelling with a path weighting scheme for the
10 inside approximation. Further, non-parametric bootstrapping (Wetzels *et al.*, 2009) was used
11 where the standard error of the estimates are obtained by using 500 replications. Following the
12 tradition of Akter et al. (2010), this study has used repeated indicators to estimate the higher
13 order latent variables. Therefore, the second-order factors, which combine people and
14 technological barriers, are directly measured by the indicators (MVs) of the first-order factors.
15 Following Wetzels *et al.*'s. (2009) suggestion, a confirmatory factor analysis was conducted to
16 test the model and analyse reliability and validity issues. 0.70 was required for the validity of
17 8 individual items and this was superseded (see Table 2 for details). The reliability of this
18 model was also validated through the composite reliability (CR), Cronbach's α (CA) and
19 average variance extracted (AVE) (see Akter *et al.*, (2010)).
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34 ***Analysis of measurement model***

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36 To investigate the human and technological barriers to internationalisation this study has used
37 PLS graph 3.0 (Wetzels, Schroder and Oppen, 2009). By using the hierarchical model with
38 PLS path modelling with a path weighting scheme for the inside approximation. Further, non-
39 parametric bootstrapping (Wetzels *et al.*, 2009) was used where the standard error of the
40 estimates are obtained by using 500 replications. Following the tradition of Akter et al. (2010),
41 this study has used repeated indicators to estimate the higher order latent variables to determine
42 the extent to which our selected 8 variables act as and can be validated as barriers to SMEs'
43 internationalisation. Therefore, the second-order factors are directly measured by using the
44 indicators (MVs) of the first-order factors. Following Wetzels *et al.*'s. (2009) suggestion, a
45 confirmatory factor analysis was conducted to test the model and analyse reliability and validity
46 issues. 0.70 was required for the validity of 8 individual items and this was superseded (see
47 Table 2 for details). The reliability of this model was also validated through the composite
48 reliability (CR), Cronbach's α (CA) and average variance extracted (AVE) (see Akter *et al.*,
49 (2010)).
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The result (Table 3) finds that the values for CR and CA on the human and technological barriers are well above the threshold point of 0.70 (Hulland, 1999), which indicates the scale consistency for each item. For example, the values obtained for the human and technology loadings (for each of the individual items in the 8 variables) highlighted the reliability of the data, consistency and robustness (see Table 3). This means that our results can also predict the potential SME barrier of internationalisation in the areas of people and technology. The AVE (Table 5) is also higher than the modest threshold 0.50 (Fornell and Bookstein, 1982). Therefore the selected items have captured adequate variance from each of the constructs and the convergent validity of all the scales is achieved. Table 4 below shows discriminant validity as the square root value of AVE is higher than the corresponding correlation coefficients in the correlation matrix (Fornell and Bookstein, 1982). We can therefore conclude that all the empirical results related to the analysis of the measurement model are satisfactorily obtained through adequate reliability, convergent validity and discriminant validity.

Please insert Table 4 here...

Assessment of higher order model

Based on the results, a hierarchical construct model is developed to show the human and technology barriers to entering foreign markets for Bangladeshi SMEs in Figure 2. The second-order constructs (overall barriers) are reflected in the first-order constructs and the degree of explained variances both for human and technology is 83 per cent. This means that both human and technology factors need to complement each other when SMEs internationalise their businesses. The result in Table 5 shows that the path coefficients from overall barriers of internationalisation to second order (People and Technological) are significant. Further, the validity of higher order reflective model is confirmed from the CR, CA and AVE value that have been found to be higher than threshold values of 0.70 (see Figure 3 below for the model's critical loadings).

Insert Figure 3 here...

Analysis of structural model and results of hypotheses testing

This study has estimated the relationship between the overall human and technological barriers and sub-dimensions with an objective to measuring the structural validity of the model (see Figure 3). The respective coefficient value for human and technological barriers are 0.913 and

0.912 each; thereby indicating a strong association between those variables. This result also shows that there is a strong, associative relationship between human and technological factors of internationalisation. Equal investment is needed in both for internationalisation to work. Further, all these path coefficients are significant at 0.01 (see Table 6). Therefore, the overall findings support the hypotheses as shown in Table 6.

Please insert Table 5 here...

Please insert Figure 3 here...

Summary of findings

One of the key objectives of this study is to identify the human and technological barriers of internationalisation for SMEs in a developing country, something not attempted previously. To fulfil this objective, this study has initially looked at the configuration model of HRM practices and processes involved by exploring Lepak and Snell's (1999) seminal model and some of the innovative practices identified in SMEs' internationalisation activities (Dar and Mishra, 2019; Krishnan and Scullion, 2017). Following the findings from the extant literature, we developed a structural barriers-model that is able to explain the major human and technological barriers faced by the Bangladeshi SMEs in foreign markets, something that eluded Mustafa and Yaakub (2008), Conz et al., (2017) and Dar and Mishra (2019). This study also contributes to extend our knowledge on the barriers of SMEs from a Bangladesh perspective by categorising the barriers into two dimensions (human and technology) with eight indicators. It has effectively enclosed barriers to enter in foreign markets for SMEs in a second-order model where both dimensions reflect overall the human and technological barriers as they have been constructed, something that has not been attempted by Ardito *et al.*, (2018) or even Ramirez-Portilla *et al.*'s (2017) innovative use of SmartPLS software. Hence it contributes to the theoretical support for the application of the configuration model in the tradition of Delery and Doty (1996), Huselid and Becker (1996) and their followers (Brewster, 1999; Campbell and Van Wanrooy, 2013; Perkins and White, 2011; Adomaku, 2018) onto international small business research. Our model also highlights each of the different components within the human and technology categories that SMEs need to pay due attention if they wish to enhance the effectiveness of the people practices in contributing value of their internationalisation (xxx, 2019). In fact, this study extends all these conceptualisations as the model developed here has been shown to be competent to compare different types of barriers, aspects that have not been previously studied (see Mamoghli *et al.*, 2018). In general, both people and technological

oriented barriers seem to be likewise significant at 83% overall variance for SMEs in a developing country context such as Bangladesh. Therefore, it can be recommended that both of these constructs should be given equal attention.

Insert Table 6 here...

This model should be able to better explain the complex relationship as suggested by Fornell and Bookstein (1982) as well as the cultural processes (Okpara and Kabongo, 2010; Hofstede, 2001). Following the suggestion made by Wold (1985), this study has used repeated indicators from first to second-order model. All results confirmed the validity of measurement model and structural model (see Figure 2 below).

Insert Figure 2 here...

Therefore, it has successfully shifted individual barriers of internationalisation to overall barriers of internationalisation as stated by Wold (1985, p. 589): “PLS comes to the fore in larger models, when the importance shifts from individual variables and parameters to packages of variables and aggregate parameters”.

Implications for Practice and Further research

The study's results have a number of practical, methodological and theoretical implications as follows. Firstly, on a practical level, they can help policy makers to initially identify what types of people behaviours they should identify and focus on when SMEs operate internationally. The study's results have therefore helped in the extension of what we knew previously about some of the practical barriers that SMEs, business people and policy designers can encounter. SMEs' internationalisation barriers focused on in previous studies included non-availability of capital (Naldi *et al.*, 2007), lack of information sharing capacity leading to innovation and performance glut (Booltink and Helmhout, 2018) and lack of R & D and skills capability (Krishnan and Scullion, 2017). By identifying the importance of other factors related to the human loadings of our model (see Figure 3), this study is signalling that a shift in focus is now needed in SMEs' internationalisation studies. Policy makers can now concentrate on both technological *as well as* human aspects of internationalisation (e.g. language and social aspects). This implies that SMEs need to develop appropriate and effective HRM processes in

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3 order to facilitate the performance of their firms in order to deal with SMEs' challenges. HRM
4 practitioners should identify R & D programmes, work with ICT and information sharing
5 experts so as to develop training and development sessions in internationalisation centres of
6 operation. This will help in practically addressing shortages in skilled labour and innovative
7 capacity as identified by Dutta and Sobel (2016) and Ren *et al.* (2015). HR professionals also
8 need to configure their new activities in line with language and socio-cultural professionals so
9 as to address the social aspects that our model has highlighted as barriers to internationalisation.
10 Doing so, will practically facilitate the alleviation of the socio-cultural constraints identified in
11 an earlier study by Dreher and Gassebner (2013) in international settings. The added benefit
12 here is the realisation of Lepak and Snell's (1999) configuration model between local and
13 international aspects of managing 'human capital' in a dynamic way as theoretically envisaged
14 by Dar and Mishra (2019) and Mustafa and Yaakub (2018) among others. The results also help
15 in adopting and implementing programmes of activities and people management processes that
16 could help enhance business expansion and SMEs' performance development. Given the fact
17 that it has been found that human and technology-related barriers are equally as significant, it
18 is crucial that people's cultural heritage, including their language, social perspectives and
19 traditional customs are attributed equal emphasis as the development of technological software
20 and hardware in the processes of SMEs' internationalisation. This view has previously been
21 partially supported by Okpara and Kabongo (2010) and earlier by Hofstede (2001) and Oliver
22 (1997). Our study has delved into the practical difficulties involved (e.g. human and
23 technological) and provided an outlet for where HRM processes could be involved in their
24 effective management and mitigation.
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43 Secondly, on the theoretical level we developed a model that highlights 8 variables that could
44 constrain the application of the configuration model of HRM. We examined its characteristics
45 by using the SME and HRM literatures where this has not been done before – i.e. barriers of
46 SMEs' internationalisation. The results show that although human and technology barriers are
47 equally weighted in significance, the evidence points to including both in a set of HRM
48 'bundles' to effectively address the constraints identified. This theoretical opportunity was
49 previously missed by scholars like Ardito *et al.*, (2018), Becker and Huselid (2006), Ramirez-
50 Portilla *et al.*, (2017), and even Steinerowska-Streb and Steiner (2014). There is an additional
51 implication here in the sense that making this theoretical addition helps to extend Lepak and
52 Snell's (1999) configuration model to include the positioning of people management practices
53 at the heart of SMEs' internationalisation. Doing so helps those developing business processes
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3 to understand the types of SME partners, investors and collaborative configurations that could
4 work, once the barriers and processes are dealt with. However, two levels of business
5 interactions and configuration ought to be recognised and their addressed, namely the employer
6 and employee levels. From the employer-level perspective/approach, the type of high
7 performance and innovative work systems initially proposed by Huselid and Becker (1995)
8 and later subscribed to by Booltink and Saka-Helmhout (2018), among others, should be
9 complemented by an equally high level commitment when collaborations and partnerships
10 between SME owners, SME workers and other agencies internationally. This will help in
11 alleviating the human and technical challenges as highlighted. Doing so will facilitate the
12 skilled labour and training issues (H1c and H1d) as well as address the language (H1a) and
13 social concerns (H1b).
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24 This is not enough. On the third (i.e. methodological level), the individual employee's needs
25 should also be addressed simultaneously. Although Huselid (1995) and Boxall and Purcell
26 (2003) identified the use of 'High Performance Work Practices' as part of HRM processes in
27 facilitating training and development (Marchington and Grugulis, 2000) a firm's financial
28 performance can be enhanced (Campbell and van Wanrooy, 2013) not only via technological
29 innovation (Booltink and Saka-Helmhout, 2018). Our study has shown that developing a model
30 that captures the complex range of interactions and relationships between different human and
31 technological elements is crucial for SME survival and viability if they wish to operate
32 internationally (see H2a, H2b, H2c and H2d). Therefore, an integrative approach is necessary
33 for the HRM process to yield some success in SMEs' internationalisation. The 'greasing (of)
34 the wheels' (Dreher and Gassebner 2013; Maharjan and Sekiguchi, 2016,) is no longer a
35 sufficient proposition to be include in internationalisation models given the growing
36 sophistication of legal frameworks that bind companies operating internationally. This research
37 has added both human and technology aspects as crucial 'wheels' that should be configured in
38 SME internationalisation studies.
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53 **Conclusions**

54 The main objective of this study was to compare the human and technological barriers to
55 entering foreign markets for the SMEs in a developing country. To address this objective, a
56 model has been developed and validated through empirical data.
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3 The results of the study will assist policy makers and owners of SMEs to know which
4 behaviours they need to prioritise when they internationalise their businesses and what HRM
5 processes are critical in guaranteeing success. The results have extended our knowledge as they
6 highlight that policy makers need to consider both human and technological and innovative
7 practices equally when they design and implement growth and economic development
8 initiatives targeting SMEs in emerging economies.
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15 Theoretically, this study extended the application of the configuration model of HRM to study
16 the barriers of SME internationalisation. The study also demonstrated that both human and
17 technologically-related issues should be factored into Lepak and Snell's (1999) four categories
18 and Portilla *et al.*'s (2017) SmartPLS software and Ardito *et al.*'s (2018) IT and performance
19 mix especially as SMEs seek to develop collaboration-based initiatives as part of their drive to
20 internationalise businesses.
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27 A specific bundle based on technology *or* humans and their contribution to performance will
28 be less effective (see Bootink and Saka-Helmhout, 2018; Mustafa and Yaakub, 2018) than a
29 combined effort of bundles based on both. The application of the characteristics of the
30 configuration model could also be used for international entrepreneurship as the contribution
31 of its human dimension as proposed by Dar and Mishra (2019) is extended through this study.
32 Having identified the barriers for SME internationalisation at employer and employee levels of
33 theoretical analysis data from 212 Bangladeshi companies were validated through PLS-SEM,
34 something that El-Makrini (2015) earlier and the cited successors missed. It was found that
35 each of the barriers was equally as significant not just for their economic contributions (see
36 Vrontis, Bresciani and Giacosa, 2016) but specifically for entrepreneurial and human
37 development. Therefore, support services given by government and non-government
38 organisations in developing countries that assist the growth of SMEs should prioritise both
39 human and technological issues likewise.
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51 Future research should consider the environmental factors from other perspectives such as
52 political, legal, economic, financial and socio-cultural. Findings from developed countries
53 could also be compared to those from an emerging/developing market.
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58 **References**

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1
2
3 Adomakou, S., Opoku, R.A. and Frimpoong, K. (2018), "Entrepreneurs' improvisational
4 behaviour and new venture performance: firm-level and institutional contingencies", *Journal*
5 *of Business Research*, Vol. 83, pp. 10-18.

6
7
8
9 Akter, S., Wamba, S.F., Gunasekaran, A., Dubey, R. and Childe, S.J. (2016), "How to improve
10 firm performance using big data analytics capability and business strategy
11 alignment?" *International Journal of Production Economics*, Vol. 182, pp. 113-131.

12
13
14
15 Akter, M.S., Rajasekera, J. and Rahman, M.M. (2010), "Serving the poor by marketing
16 information: developing a sustainable village phone model in Bangladesh", *International*
17 *Journal of Economics and Business Research*, Vol. 2 No. 3, pp. 288-309.

18
19
20
21 Apulu, I., and Ige, E.O. (2011), "Are Nigeria SMEs Effectively Utilizing ICT?" *International*
22 *Journal of Business and Management*, Vol. 6 No. 6, pp. 207-214.

23
24
25
26 Ardito, L., Besson, E., Petruzzelli, A.M. and Gregori, G.L. (2018), "The influence of
27 production, IT, and logistics process innovations on ambidexterity performance", *Business*
28 *Process Management Journal*, Vol. 24 No. 5, pp. 1271-1284. .

29
30
31
32 Armstrong, M. (2015), *Armstrong's Handbook of Performance Management: An evidence-*
33 *based guided to delivering high performance*, Kogan Page, London.

34
35
36
37 Barney, J.B. (2001), "Resource-based theories of competitive advantage: A ten year
38 retrospective on the resource-based view", *Journal of Management*, Vol. 27 No. 6, pp. 643 –
39 650.

40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
Becker, B.E. and Huselid, M.A. (2006), "Strategic human resources management: where do
we go from here?" *Journal of Management*, Vol. 32 No. 6, pp. 898-925.

Berger, P.L. and Luckmann, T. (1967), *The Social Construction of Reality: A Treatise in the*
Sociology of Knowledge, Anchor, New York.

Bhana, A. and Bachoo, S. (2011), "The determinants of family resilience among families in
low-and middle-income contexts: a systematic literature review." *South African Journal of*
Psychology, Vol. 41 No. 2, pp. 131-139.

Blonigen, B.A. and Taylor, C.T. (2000), "R&D intensity and acquisitions in high-technology
industries: Evidence from the US electronic and electrical equipment industries", *Journal of*
Industrial Economics, Vol. 48 No. 1, pp. 47–70.

1
2
3 Booltink, L.W. and Saka-Helmhout, A. (2018), “The effects of R&D intensity and
4 internationalization on the performance of non-high-tech SMEs.” *International Small Business*
5 *Journal*, Vol. 36. No. 1. pp. 81-103.
6
7

8
9 Boxall, P. (1996), “The strategic HRM debate and the resource-based view of the firm”, *Human*
10 *Resource Management Journal*, Vol. 6, pp. 59–75.
11
12

13 Boxall, P. and Purcell, J. (2003), *Strategy and human resource management*, Palgrave-
14 Macmillan, Hampshire.
15
16

17 Brewster, C. (1999), “Different paradigms in strategic HRM: Questions raised by comparative
18 research”. In P. Wright, L. Dyer, L. Boudreau and G. Milkovich (Eds.), *Research in personnel*
19 *and human resource management: Strategic HRM in the 21st century* (Supplement 4, pp. 213–
20 238): JAI Press, Greenwich, CT.
21
22
23

24
25 Buono, A.F. and Bowditch, J.L. (2003), *The human side of mergers and acquisitions: Managing collisions between people, cultures, and organizations*, Beard Books. Washington
26 DC.
27
28
29

30
31 Campbell, I. and van Wanrooy, B. (2013),” Long working hours and working-time preferences:
32 Between desirability and feasibility”, *Human Relations*, Vol. 66 No. 8, pp. 1131-1155.
33
34

35 Chandra, S., Srivastava, S.C. and Theng, Y.L. (2012), Cognitive absorption and trust for
36 workplace collaboration in virtual worlds: An information processing decision making
37 perspective”, *Journal of the Association for Information Systems*, Vol. 13 No. 10, pp. 797-835.
38
39
40

41 Chatterjee, S., Lubatkin, M.H., Schweiger, D.M. and Weber, Y. (1992), “Cultural differences
42 and shareholder value in related mergers: Linking equity and human capital”, *Strategic*
43 *Management Journal*, Vol. 13 No. 5, pp. 319-334
44
45
46

47 Conz, E., Denicolai, S. and Zucchella, A. (2017), “The resilience strategies of SMEs in mature
48 clusters”, *Journal of Enterprising Communities: People and Places in the Global*
49 *Economy*, Vol. 11 No. 1, pp. 186-210.
50
51
52

53 Dar, I.A. and Mishra, M. (2019), “Human Capital and SMEs Internationalization:
54 Development and Validation of a Measurement Scale.” *Global Business Review*, DOI:
55 10.1177/0972150918817390.
56
57
58
59
60

1
2
3 Datta, D.K. (1991), "Organizational fit and acquisition performance: Effects of
4 post-acquisition integration." *Strategic Management Journal*, Vol. 12 No. 4, pp. 281-297.

5
6
7 Delaney, J.T. and Huselid, M.A. (1996), "The impact of human resource management practices
8 on perceptions of organizational performance", *Academy of Management Journal*, Vol. 39, pp.
9 949-969.

10
11
12
13 Delery, J.E. and Doty, H.D. (1996), "Modes of theorizing in Strategic Human Resource
14 Management: Tests of Universalistic, Contingency and Configurational Performance
15 Predictions", *Academy of Management*, Vol. 39, No. 4, pp. 802-835.

16
17
18
19 Delery, J.E. (1998), "Issues of fit in strategic human resource management: Implications for
20 research", *Human Resource Management Review*, Vol. 8, pp. 289-309.

21
22
23
24 Dinger, M., Thatcher, J.B., Treadway, D., Stepina, L. and Breland, J. (2015), "Does
25 professionalism matter in the IT workforce?" An empirical examination of IT professionals.
26 *Journal of the Association for Information Systems*, Vol. 16 No. 4, 281-313.

27
28
29
30 Dolan, S.L., Mach, M. and Olivera, V.S. (2005), "HR contribution to a firm's success examined
31 from a configurational perspective: An exploratory study based on the Spanish CRANET data",
32 *Management Revue*, Vol. 16, pp. 272-290.

33
34
35
36 Dreher, A. and Gassebner, M. (2013), "Greasing the wheels? The impact of regulations and
37 corruption on firm entry", *Public Choice*, pp. 1-20.

38
39
40
41 Dutta, N. and Sobel, R. (2016), "Does corruption ever help entrepreneurship?" *Small Business
42 Economics*, Vol. 47, No. 1, pp. 179-199.

43
44
45
46 Edmondson, A.C. and Harvey, J.F. (2018), "Cross-boundary teaming for innovation:
47 Integrating research on teams and knowledge in organizations." *Human Resource Management
48 Review*, Vol. 28 No. 4, pp. 347-360.

49
50
51
52 El Makrini, H. (2015), "How does management perceive export success? An empirical study
53 of Moroccan SMEs", *Business Process Management Journal*, Vol. 21 No. 1, pp. 126-151.

54
55
56
57 Erramilli, M.K. and Rao, C.P. (1990), "Choice of foreign market entry modes by service
58 firms: role of market knowledge." *MIR: Management International Review*, pp. 135-150.

1
2
3 Festing, M., Schafer, L. and Scullion, H. (2013), "Talent management in medium-sized
4 German companies – An explorative study and agenda for future research", *International*
5 *Journal of Human Resource Management*, Vol. 24, No. 9, pp. 1872-1893.

6
7
8
9 Fleenor, C.P. and Raven, P. (2011), "Barriers to effective e-business in developing countries",
10 *International Business & Economics Research Journal (IBER)*, Vol. 1, No. 4, pp. 39 -48.

11
12
13 Foot, M. and Hook, C. (1999), *Introducing human resource management*, Longman, London.

14
15
16 Fornell, C. and Bookstein, F.L. (1982), "Two Structural Equations Models: LISREL and PLS
17 applied to consumer exit-voice theory", *Journal of Marketing Research*, Vol. 19, pp. 440–452.

18
19
20 Gerhart, B. (2005), "Human resources and business performance: Findings, unanswered
21 questions and an alternative approach", *Management Revue*, Vol. 16, pp. 174–185.

22
23
24 Gerhart, B. and Fang, M. (2014), "Pay for (individual) performance: Issues, claims, evidence
25 and the role of sorting effects." *Human Resource Management Review*, Vol. 24 No. 1, pp. 41-
26 52.

27
28
29 Gerhart, B. and Fang, M. (2005), "National culture and human resource management:
30 assumptions and evidence", *International Journal of Human Resource Management*, Vol. 16,
31 No. 1, pp. 41-52.

32
33
34 Giacosa, E., Mazzoleni, A. and Usai, A. (2018), "Business Process Management (BPM) How
35 complementary BPM capabilities can build an ambidextrous state in business process activities
36 of family firms", *Business Process Management Journal*.

37
38
39 Grandinetti, R. and Mason, M.C. (2012), "Internationalization modes other than exporting: The
40 missing determinant of export performance." *European Business Review*, Vol. 24 No. 3, pp.
41 236-254.

42
43
44 Guest, D.E. (2001), "Human resource management: When research confronts theory",
45 *International Journal of Human Resource Management*, Vol. 12, pp. 1092–1106.

46
47
48
49 Gunasekaran, A., Rai, B.K. and Griffin, M. (2011), "Resilience and competitiveness of small
50 and medium size enterprises: an empirical research", *International Journal of Production*
51 *Research*, Vol. 49 No. 18, pp. 5489-5509.

1
2
3 Guthrie, J.P. (2001), "High-involvement work practices, turnover, and productivity: Evidence
4 from New Zealand." *Academy of Management Journal*, Vol. 44 No. 1, pp. 180-190.

5
6
7 Gunaratne, S.A. (2009), "Globalization: A non-Western perspective: The bias of social
8 science/communication oligopoly." *Communication, Culture and Critique*, Vol. 2 No.1, pp.
9 60-82.

10
11
12
13 Hadjimanolis, A. (1999), "Barriers to innovation for SMEs in a small less developed country
14 (Cyprus)", *Technovation*, Vol. 19, No. 9, pp. 561-570.

15
16
17
18 Hansen T and Winther L (2014), "Competitive low-tech manufacturing and challenges for
19 regional policy in the European context - lessons from the Danish experience", *Cambridge*
20 *Journal of Regions, Economy and Society*, Vol. 7, pp. 449-470.

21
22
23 Heywood, S., Siebert, W. and Wei, X. (2010), "Work-life balance: promises made and
24 promises kept", *International Journal of Human Resource Management*, Vol. 21, No. 11, pp.
25 1976-1995.

26
27
28
29 Hofstede, G. (2001), *Cultures Consequences: comparing values, behaviours, institutions and*
30 *organizations across nations*, Thousand Oaks, California.

31
32
33 Horgan, J. and Muhlau, P. (2005), "Human resource management and performance: A
34 comparative study of Ireland and the Netherlands", *Management Review*, Vol. 16, pp. 242-
35 258.

36
37
38
39 Hu, J., Shen, L. and Sun, G. (2018), "Squeeze-and-excitation networks". In *Proceedings of the*
40 *IEEE conference on computer vision and pattern recognition*, pp. 7132-7141).

41
42
43
44 Hulland, J. (1999), "Use of partial least squares (PLS) in strategic management research: a
45 review of four recent studies", *Strategic Management Journal*, Vol. 20, No. 2, pp. 195-204.

46
47
48 Huselid, M.A. (1995), "The impact of human resource management practices on turnover,
49 productivity and corporate financial performance", *Academy of Management Journal*, Vol. 38,
50 pp. 635-670.

51
52
53
54 Huselid, M.A., Jackson, S.E. and Schuler, R.S. (1997), "Technical and strategic human
55 resource management effectiveness as determinants of firm performance", *Academy of*
56 *Management Journal*, Vol. 40, pp. 171-188.

1
2
3 Jarvis, C.B., MacKenzie, S.B. and Podsakoff, P.M. (2003), "A critical review of construct
4 indicators and measurement model misspecification in marketing and consumer
5 research." *Journal of Consumer Research*, Vol. 30 No. 2, pp. 199-218.
6
7

8
9 Jasra, M.J., Khan, M.A., Hunjra, A.I., Rehman, R.A.U. and Azam, R.I. (2011), "Determinants
10 of Business Success of Small and Medium Enterprises", *International Journal of Business and
11 Social Science*, Vol. 2, No. 20, pp. 274-280.
12
13

14
15 Kamakura, W.A., Ramón-Jerónimo, M.A. and Gravel, J.D.V. (2012), "A dynamic perspective
16 to the internationalization of small-medium enterprises", *Journal of the Academy of Marketing
17 Science*, Vol. 40 No. 2, pp. 236-251.
18
19

20
21 Kim-Soon, N., Ahmad, A.R., Kiat, C.W. and Sapry, H.R.M., (2017), "SMEs Are Embracing
22 Innovation for Business Performance", *Journal of Innovation Management in Small and
23 Medium Enterprises*, Vol. 1.
24
25

26
27 Kola, K. and Kadongo, O. (2017), "Macroeconomic risks and REITs returns: A comparative
28 analysis", *Research in International Business and Finance*, Vol. 42, pp. 1228-1243.
29
30

31
32 Koch, M.J. and McGrath, G.R. (1996), "Improving labour productivity: Human resource
33 management policies do matter", *Strategic Management Journal*, Vol. 17, pp. 335-354.
34
35

36
37 Krishnan, T.N. and Scullion, H. (2017), "Talent management and dynamic view of talent in
38 small and medium enterprises", *Human Resource Management Review*, Vol. 27, No. 3, pp.
39 431-441.
40

41
42 Krishnan, H.A., Miller, A. and Judge, W.Q. (1997), "Diversification and top management team
43 complementarity: Is performance improved by merging similar or dissimilar teams?" *Strategic
44 Management Journal*, Vol. 18 No. 5, pp. 361-374.
45
46

47
48 Lambert, D.M. and Stock, J.R. (1993), *Strategic logistics management* (Vol. 69), Irwin,
49 Homewood, IL.
50

51
52 Larsson, R. and Risberg, A. (1998), "Cultural awareness and national versus corporate barriers
53 to acculturation." *Cultural dimensions of international mergers and acquisitions*, pp. 39-56.
54
55

56
57 Lepak, D.P. and Snell, S.A. (1999), "The Human Resource Architecture: Toward A Theory of
58 Human Capital Allocation and Development" *Academy of Management Review*, Vol. 24, No.
59 1, pp. 31 – 48.
60

1
2
3 Lwango, A., Coeurderoy, R., Giménez Roche, G.A. (2017), “Family influence and SME
4 performance under conditions of firm size and age”, *Journal of Small Business and*
5
6 *Enterprise Development*, Vol. 24, No. 3, pp. 629-648.
7
8

9
10
11 Maes, J. and Sels, L. (2014), “SMEs' radical product innovation: The role of internally and
12 externally oriented knowledge capabilities”, *Journal of Small Business Management*, Vol. 52
13
14 No. 1, pp. 141-163.
15
16

17
18
19 Maharjan, M.P. and Sekiguchi, T. (2016), “Human resource management practices at
20 foreign-affiliated companies in least-developed regions: US and Japanese Companies in
21
22 Nepal”, *Asian Business and Management*, Vol. 15, No. 2, pp. 137-164.
23
24

25
26
27 Malhotra, N.K. (2008). *Marketing research: An applied orientation, 5/e*. Pearson Education
28
29 India.

30
31 Mamoghli, S., Cassivi, L. and Trudel, S. (2018), “Supporting business processes through
32 human and IT factors: a maturity model”, *Business Process Management Journal*, Vol. 24 No.
33
34 4, pp. 985-1006.
35

36
37 Marchington, M. and Grugulis, I. (2000), “Best practice’ human resource management: Perfect
38 opportunity or dangerous illusion?” *International Journal of Human Resource Management*,
39
40 Vol. 11, pp. 1104–1124.
41

42
43 Marsden, J. and Dickinson, P. (2013), *International Evidence Review on Co-funding for*
44
45 *Training*. Research Paper 116, BIS, London.

46
47 Mendy, J. (2019), “Supporting Creating Shared Value: Including Local and Global Clusters of
48 Staff Resistance to Strategic SME Restructuring”, *Strategic Change*, Vol 28 No 2, pp. 157 –
49
50 161.
51

52
53 Mendy, J. and Rahman, M. (2019), “Application of HRM’s Universal Model: an examination
54 of People vs Institutions as Barriers of Internationalization for SMEs in a Small Developing
55
56 Country”, *Thunderbird International Business Review*, Vol. 61 No. 2, pp. 363-374.
57
58
59
60

1
2
3 Mendy, J. and Hack-Polay, D. (2018), "Learning from failure: A study of failed enterprises of
4 self-employed African migrants in the UK", *Journal of Small Business and Enterprise*
5 *Development*, Vol. 25 No. 2, pp. 330-343.
6
7

8
9 Meyer, J.W. and Rowan, B. (1977), "Institutionalized organizations: Formal structure as myth
10 and ceremony." *American journal of sociology*, Vol. 83 No. 2, pp. 340-363.
11
12

13 Morgan, R.E. and Katsikeas, C.S. (1997), "Theories of international trade, foreign direct
14 investment and firm internationalization: a critique." *Management Decision*, Vol. 35 No. 1, pp.
15 68-78.
16
17

18
19 Morley, M.J., Scullion, H., Collings, D.G. and Schuler, R.S. (2015), "Talent management: A
20 capital question", *European Journal of International Management*, Vol. 9, No. 1, pp. 1-8.
21
22

23 Morosini, P., Shane, S. and Singh, H. (1998), "National cultural distance and cross-border
24 acquisition performance." *Journal of International Business Studies*, Vol. 29 No. 1, pp. 137-
25 158.
26
27

28
29 Mustafa, H. K. and Yaakub, S. (2018), "Innovation and Technology Adoption Challenges:
30 Impact on SMEs' Company Performance." *International Journal of Accounting, Finance and*
31 *Business*, Vol. 3 No. 15, pp. 57-65.
32
33

34
35 Naldi, L., Nordqvist, M., Sjöberg, K. and Wiklund, J. (2007), "Entrepreneurial orientation, risk
36 taking, and performance in family firms", *Family Business Review*, Vol. 20 No. 1, pp. 33-47.
37
38

39
40 Okpara, J. and Kabongo, J. (2010), "Export barriers and internationalization: Evidence from
41 SMEs in emergent African economy", *International Journal of Business and Globalization*,
42 Vol. 5, No. 2, pp. 169-187.
43
44

45
46 Olie, R. (1994), "Shades of culture and institutions-in international mergers." *Organization*
47 *studies*, Vol. 15 No. 3, pp. 381-405.
48
49

50
51 Oliver, C. (1997), "Sustainable competitive advantage: combining institutional and
52 resource-based views." *Strategic Management Journal*, Vol. 18 No. 9, pp. 697-713.
53
54

55
56 Patterson, M., West, M., Lawthorn, R. and Nickell, S. (1997), "Impact of people management
57 practices on business performance", *Issues in People Management*, No 22, IPD, London.
58
59
60

1
2
3 Paul, A.K. and Anantharaman, R.N. (2003), "Impact of people management practices on
4 organizational performance", *International Journal of Human Resource Management*, Vol. 14,
5 pp. 1246–1266.
6
7

8
9 Perkins, S. and White, G. (2011), *Reward Management*, CIPD, London
10

11 Pfeffer, J. (1995), "Producing sustainable competitive advantage through the effective
12 management people", *Academy of Management Executive*, Vol. 9, pp. 55–69.
13
14

15
16 Pfeffer, J. (1998), *The human equation*, Harvard Business School Press, Boston, MA.
17

18
19 Phillips, J.J (1996), *Accountability in human resource management*, Gulf Publishing Company,
20
21 Houston, TX.
22

23
24 Pisano, G.P. (1990), "The R&D boundaries of the firm: an empirical analysis", *Administrative
25 science quarterly*, pp. 153-176.
26

27
28 Porter, M.E. and Kramer, M.R. (2011), "The big idea: Creating value rethinking capitalism",
29 *Harvard Business Review*, January-February Issue.
30

31
32 Prashantham, S. (2005), "Toward a knowledge-based conceptualization of
33 internationalization." *Journal of International Entrepreneurship*, Vol. 3 No. 1, pp. 37-52.
34
35

36
37 Ramirez-Portilla, A., Cagno, E. and Brown, T.E. (2017), "Open innovation in specialized
38 SMEs: the case of supercars", *Business Process Management Journal*, Vol. 23, No. 6, pp.
39 1167-1195.
40

41
42 Ren, S., Eisingerich, A.B. and Tsai, H.T. (2015), "How do marketing, research and
43 development capabilities, and degree of internationalization synergistically affect the
44 innovation performance of small and medium-sized enterprises (SMEs)? A panel data study of
45 Chinese SMEs". *International Business Review*, Vol. 24, pp. 642-651.
46
47

48
49 Ruzzier, M., Antončič, B. and Konečnik, M. (2006), "The resource-based approach to the
50 internationalisation of SMEs: Differences in resource bundles between internationalised and
51 non-internationalised companies", *Zagreb International Review of Economics &
52 Business*, Vol. 9 No. 2, pp. 95-116.
53
54
55
56
57
58
59
60

1
2
3 Quaicoe, A., Aboadgy, A.Q.Q. and Bokpin, G.A. (2017), "Assessing the impact of export
4 processing zones on economic growth in Ghana", *Research in International Business and*
5 *Finance*, Vol. 42, pp. 1150-1163.

6
7
8
9 Rahman, M., Uddin, M. and Lodorfos, G. (2017), "Barriers to enter in foreign markets:
10 evidence from SMEs in emerging market", *International Marketing Review*, Vol. 34, No. 1,
11 pp. 68-86.

12
13
14
15 Ramirez-Portilla, A., Cagno, E. and Brown, T.E. (2017), "Open innovation in specialized
16 SMEs: the case of supercars", *Business Process Management Journal*, Vol. 23 No. 6, pp. 1167-
17 1195.

18
19
20
21 Rogers, E.W. and Wright, P.M. (1998), "Measuring organizational performance in strategic
22 human resource management: Problems, prospects, and performance information markets",
23 *Human Resource Management Review*, Vol. 8, pp. 311–331.

24
25
26
27 Roza, M., Van den Bosch, F.A. and Volberda, H.W. (2011), "Offshoring strategy: Motives,
28 functions, locations, and governance modes of small, medium-sized and large firms",
29 *International Business Review*, Vol. 20, No. 3, pp. 314-323.

30
31
32
33 Santoro, G., Ferraris, A., Giacosa, E. and Giovando, G. (2018), "How SMEs engage in open
34 innovation: a survey." *Journal of the Knowledge Economy*, Vol. 9 No. 2, pp. 561-574.

35
36
37 Saridakis, G., Yanqing, L. and Cooper, C.L. (2017), "Exploring the relationship between HRM
38 and firm performance: A meta-analysis of longitudinal studies", *Human Resource*
39 *Management Review*, Vol. 27, No. 1), pp. 87-96.

40
41
42
43 Shah, M.U.D., Shah, A. and Ullah-Khan, S. (2017), "Herding behaviour in the Pakistan stock
44 exchange: Some new insights", *Research in International Business and Finance*, Vol. 42, pp.
45 865-873.

46
47
48
49 Steinerowska-Streb, I. and Steiner, A. (2014), "An analysis of external finance availability on
50 SMEs' decision making: A case study of the emerging market of Poland." *Thunderbird*
51 *International Business Review*, Vol. 56 No. 4, pp. 373-386.

52
53
54
55 Subramony, M., Segers, J., Chadwick, C. and Shyamsunder, A. (2018), "Leadership
56 development practice bundles and organizational performance: The mediating role of human
57 capital and social capital", *Journal of Business Research*, Vol. 83, pp. 120 – 129.

1
2
3 Sykes, T. A. (2015), Support structures and their impacts on employee outcomes: a longitudinal
4 field study of an enterprise system implementation. *MIS Quarterly*, Vol. 39 No. 2, pp. 473-495.

5
6
7 Tan, C.W., Benbasat, I. and Cenfetelli, R.T. (2013), "IT-mediated customer service content
8 and delivery in electronic governments: an empirical investigation of the antecedents of service
9 quality", *MIS Quarterly*, Vol. 37 No. 1, pp. 77-109.

10
11
12
13 Top, M., Akdere, M. and Turcan, M. (2015), "Examining transformational leadership, job
14 satisfaction, organizational commitment and organizational trust in Turkish hospitals: public
15 servants versus private sector employees", *International Journal of Human Resource
16 Management*, Vol. 26, No. 9, pp. 1259-1282.

17
18
19 Ulrich, D. and Dulebohn, J.H. (2015), "Are we there yet? What's next for HR?" *Human
20 Resource Management Review*, Vol. 25, pp. 188-204.

21
22
23
24
25 Vissak, T. and Zhang, X. (2012), "Which factors affect the internationalization of Chinese
26 firms?" In *Impacts of emerging economies and firms on international business* (pp. 48-75).
27 Palgrave Macmillan, London.

28
29
30
31
32 Von Bonsdorff, M.E., Janhonen, M., Zhou, Z.E. and Vanhalad, S. (2015), "Team autonomy,
33 organizational commitment and company performance – a study in the retail trade",
34 *International Journal of Human Resource Management*, Vol. 26, No. 8, pp. 1098-1109.

35
36
37
38 Vrontis, D., Bresciani, S. and Giacosa, E. (2016), "Tradition and innovation in Italian wine
39 family businesses", *British Food Journal*, Vol. 18, No. 8, pp. 1883-1897.

40
41
42
43
44
45
46 Weaver, K.M. and Pak, J.M. (1990), "Export behaviour and attitudes of small-and medium-
47 sized Korean manufacturing firms." *International Small Business Journal*, Vol. 8 No. 4, pp.
48 59-70.

49
50
51
52
53 Weber, Y., Shenkar, O and Raveh, A. (1996), National and corporate cultural fit in
54 mergers/acquisitions: An exploratory study. *Management Science*, Vol. 42 No. 8, pp. 1215-
55 1227.

56
57
58
59
60
Wernerfelt, B. (1984), "A resource-based view of the firm", *Strategic Management Journal*,
Vol. 5, No. 2, pp. 171 – 180.

1
2
3 Wetzels, M., Schroder, G.O. and Oppen, V.C. (2009), "Using PLS path modeling for assessing
4 hierarchical construct models: Guidelines and empirical illustration", *MIS Quarterly*, Vol. 33,
5 No. 1, pp. 177–195.
6
7

8
9 Welch, L.S. and Luostarinen, R. (1988), "Internationalization: evolution of a concept." *Journal*
10 *of General Management*, Vol. 14 No. 2, pp. 34-55.
11
12

13 Williams, C.C. and Horodonic, I.A. (2016), "Cross-country variations in the participation of
14 small businesses in the informal economy: An institutional asymmetry explanation", *Journal*
15 *of Small Business and Enterprise Development*, Vol. 23, No. 1, pp. 3-24.
16
17
18

19 Wold, H. (1985), "Partial least squares". In S. Kotz and N. L. Johnson (Eds.), *Encyclopaedia*
20 *of statistical sciences*, Vol. 6, pp. 581-591.
21
22
23

24 Zhou, W., Zhang, Y. and Shen, Y. (2017), "How shared leadership and team personality
25 composition interact to improve entrepreneurial team performance: Evidence from China",
26 *Journal of Small Business and Enterprise Development*, Vol. 24, No. 3, pp. 426-445.
27
28
29
30
31
32
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**Supporting SMEs' internationalisation through a deeper understanding of Human and Technology Barriers:
Applying Effective HRM processes from a developing country**

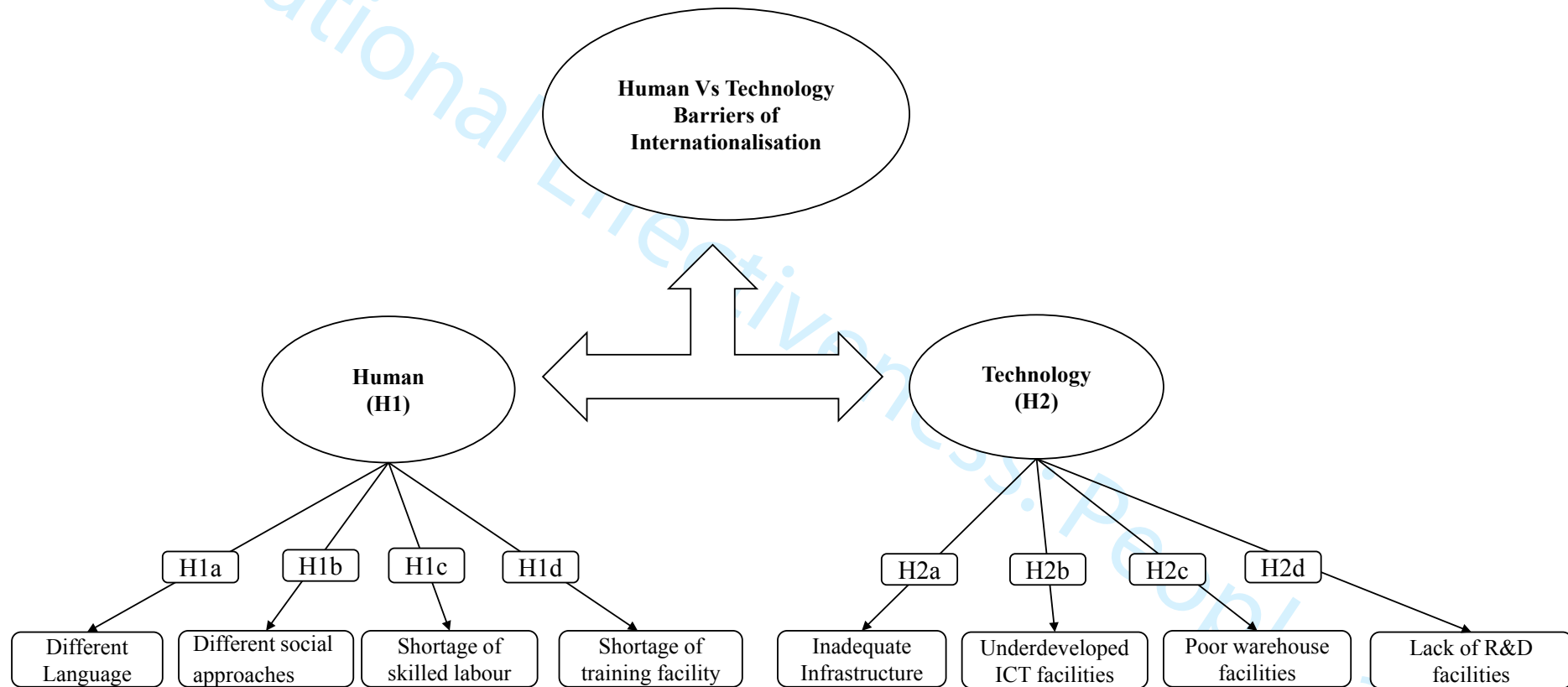


Figure 1: Hypothesis on the Human vs Technological barriers of internationalisation for SMEs in a developing country

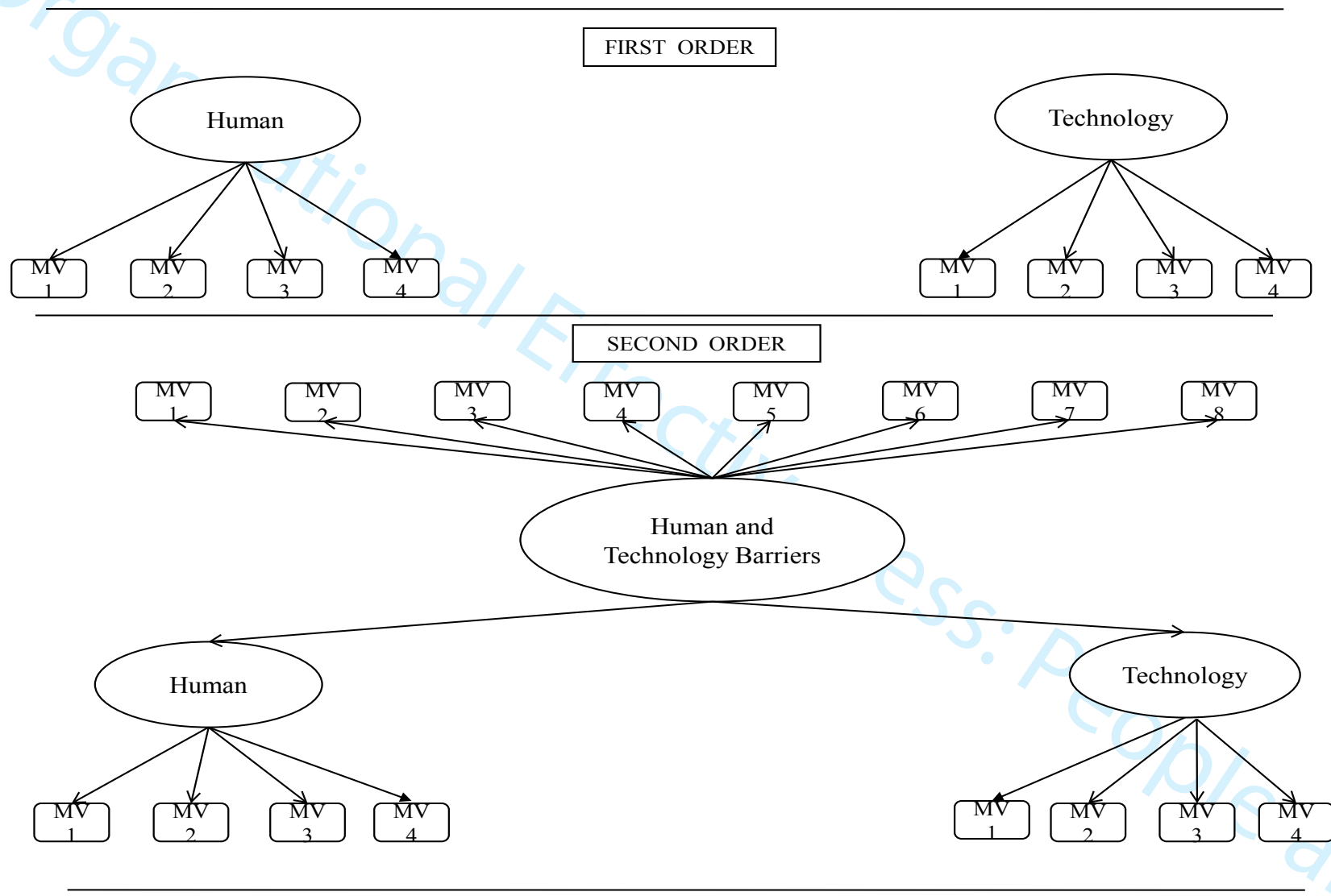


Figure 2: Human vs Technology-related Barriers of internationalisation as a Hierarchical Reflective Model

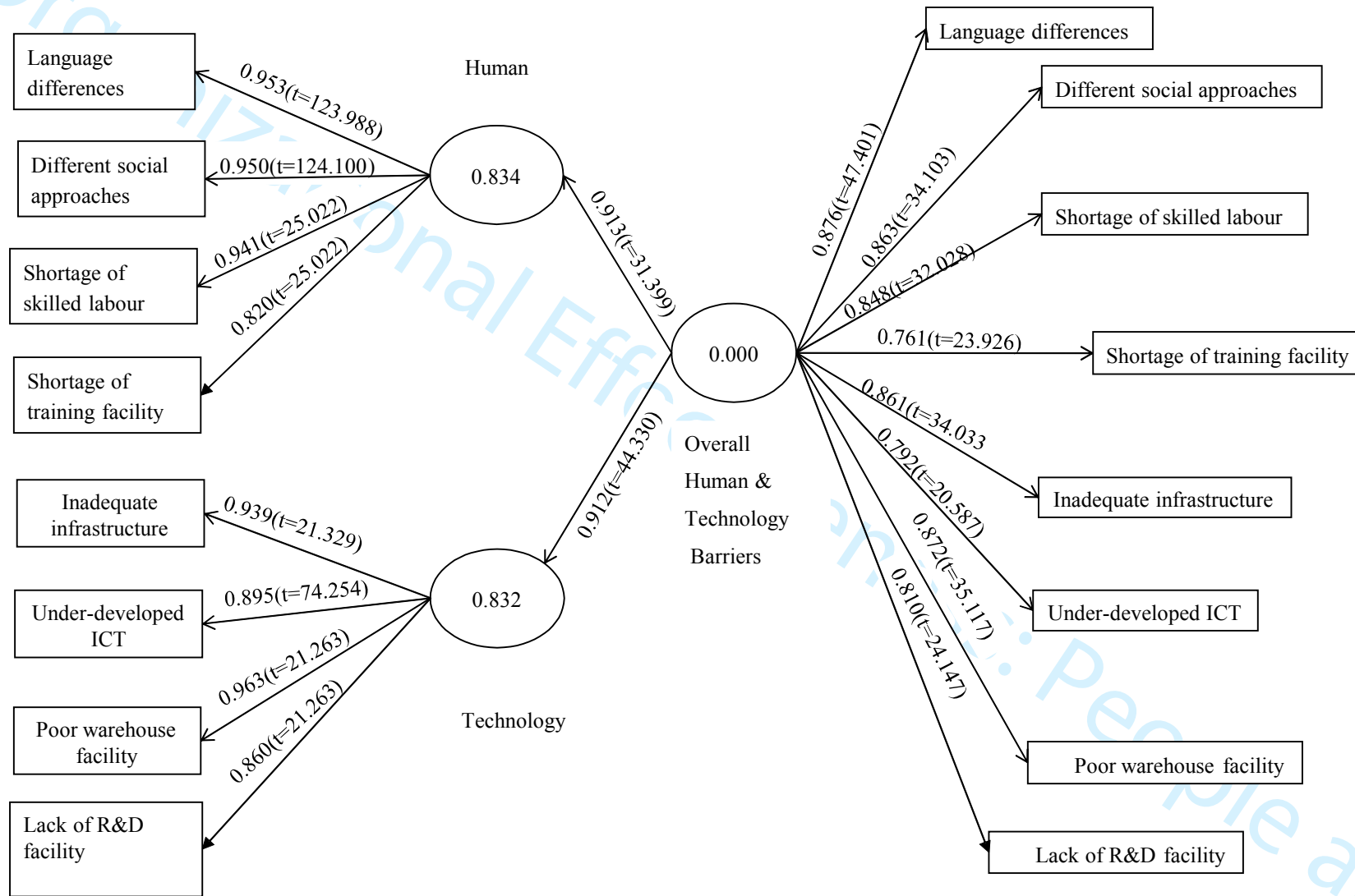


Figure 3: Main Loadings of the Model

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Journal of Organizational Effectiveness: People and Performance

Supporting SMEs' internationalisation through a deeper understanding of Human and Technology Barriers: Applying Effective HRM processes from a developing country

Particulars	Category	%	Particulars	Category	%
Gender	Male	68.10	Sector of business	Primary	13.90
	Female	32.90		Manufacturing	51.40
Area	Dhaka	28.50	Business Type	Service	34.70
				Sole trader	28.90
				Partnership	21.40
				Family	09.10
				Co-operative	06.90
	Khulna	23.60		Private Ltd	33.70

Table 1: Demographic Profiles of Respondents

First Order	Second Order
$y_i = \Delta_y \cdot \eta_j + \varepsilon_i$	$\eta_j = \Gamma \cdot \xi_k + \zeta_j$
y_i = manifest variables	η_j = first order factors (e.g. political)
Δ_y = loadings of first order latent variables	Γ = loadings of second order latent variables
η_j = first order latent variables (political, economic, technological and social)	ξ_k = second order latent variables (procedural barrier)
ε_i = measurement error of manifest variables	ζ_j = measurement error of first order factors

Table 2: Estimation of Human and Technology Barriers of Internationalisation

Constructs	Items summary	Loadings	CR	CA	rho_A	AVE
Human	Language differences	0.953	0.955	0.936	0.941	0.842
	Different social perspectives	0.950				
	Shortage of skilled labour	0.941				
	Shortage of training facilities	0.820				
Technology	Inadequate Infrastructure	0.939	0.954	0.935	0.937	0.837
	Underdeveloped ICT facilities	0.895				
	Poor warehouse facilities	0.963				
	Lack of R&D facilities	0.860				

Table 3: Psychometric properties for first order constructs

	Human	Technology
Human	0.918*	
Technology	0.667	0.915*

Table 4: Latent Variable Correlations

Note: square root of AVE on the diagonal*

	Original Sample coefficient	Sample Mean coefficient	Standard Deviation (STDEV)	P Values	T Statistics
Overall Barriers -> Human	0.912	0.910	0.017	0.000	52.954
Overall Barriers -> Technology	0.913	0.912	0.016	0.000	58.303

Table 5: Analysis of Structural Model Path Coefficients (Mean, STDEV, T-Values)

Hypothesis	Path coefficient	t-value	Conclusion
H1a. As a human-oriented barrier, language differences impact on the internationalisation efforts of SMEs.	0.953	123.028	Supported
H1b. As a human-oriented barrier, social perspective impacts on the internationalisation efforts of SMEs.	0.950	125.937	Supported
H1c: As a human-oriented factor, the shortage of skilled labour impacts on the internationalisation of SMEs.	0.941	93.972	Supported
H1d: As a human-oriented factor, the shortage of education/training facility impacts on the internationalisation of SMEs.	0.820	30.126	Supported
H2a: As a technological barrier, the shortage of adequate infrastructure impacts on the internationalisation of SMEs.	0.939	80.472	Supported
H2b: As a technological barrier, the shortage of developed ICT impacts on the internationalisation of SMEs.	0.895	35.196	Supported
H2c: As a technological barrier, the lack of warehouse facility impacts on the internationalisation of SMEs.	0.963	133.060	Supported
H2d: As a technological barrier, the lack of R&D facility impacts on the internationalisation of SMEs.	0.860	31.964	Supported

Table 6: Results on Hypotheses