Abstract:

This article is based on a dataset compiled by the World Bank. This publicly accessible dataset contains information about business management which was collected from 212 EMFs that were located in 10 different markets across Central, Eastern Europe and Asia. In order to measure the impact of internationalisation on product innovation in these EMFs, this article utilises the resource-based view (RBV). Through data analysis a consistent pattern showing the positive impact of the strategies adopted by internationalising EMFs to enhance their product innovations emerged. This uniform pattern was common in all EMFs. Most important, the trend showed that their product innovations were attributable to several factors that included; international physical resources, international marketing capabilities, managerial international experience, managerial perception of industry internationalisation, and international outsourcing. Thus, this article offers fine insights detailing the distinctive business manoeuvres internationalising EMFs initiate to drive product innovation. Insights from this research advance the resource-based perspective in a new way. Particularly, the new knowledge describes distinctive resource-seeking behaviours EMFs exhibit in emerging market thereby contributing to the literature on firm internationalisation and innovation.

Key words: Innovation drivers, emerging markets' firms (EMFs), firm characteristics, internationalisation, resource-based view of the firm

Introduction

The extant literature on innovation management (see for example: Ramadani et al., 2017; Porter, 1990; Damanpour, 1991; Hult et al., 2004; Trott, 2017), acknowledges that innovation is one of the leading activities in organisations for enhancing their performances (Ramadani, 2019) and it also contributes to their capability renewal processes (Danneels, 2002; DeWit, 2016) whilst boosting economic development (Wong et al., 2005; Howells, 2005; Szirmai et al., 2011). On the basis of the role of innovation, it is less-surprising that it has attracted much interest among scholars (Okada and Dana 2017; Goffin and Mitchel, 2017; Kriz and Welch, 2018; Mohr, 1969; Damanpour, 1991) and business practitioners (Ernest and Young, 2018).

Studies that have focused on innovation have shown that industry characteristics, market structure, and the networking culture are potent drivers of innovation (Acs & Audretsch, 1987; Cohen, 2010; Dana, 2017; Okada and Dana 2017; Shane, 1993; Rogers, 2004). This increasing interest points the need for scholars to carry on studying various factors driving innovation in modern firms given the constantly changing global business terrain. From that perspective, the steady rise in the scholarly works focusing on the subject of innovation in emerging markets (see for example: Dana et al., 2019 Gorodnichenko & Terrell, 2010; Marco Zeschky, 2011; Yuriy Gorodnichenko, 2010) is perhaps a step in the right direction. Moreover, the growing importance of innovation in world economics in general (Saridakis et al., 2019), and in firms that are established in emerging markets (Juma, 2017), in particularly, has also inspired more research on this topical subject (see for example: Govindarajan and Trimble, 2012; Immelt *et. al.*, 2009; Ramadani et al., 2019).

The Economist (2010, p. 17) reported "the emerging world, which has for a long time been a source for cheap labour, now rivals rich countries for business innovation" and "developing countries are becoming *hotbeds* of business innovation in much the same way as Japan did from the 1950s onwards". Thus, emerging markets are where new inventions (Schumpeter, 1934), growth and business opportunities reside for the present and the future (Ernst, 2016). But, a particular concern with much of the existing literature on innovation in emerging markets is its constant focus on foreign multinational corporations' (MNCs') innovation activities (see for example: Ervits and Zmuda, 2018; Reddy, 2011). This literature is mainly dominated by studies that describe the new product/service innovation methods adopted by MNCs that venture into emerging markets through a process defined in the literature as *reverse innovation* (Corsi, Minin, and Piccaluga, 2014; von Zedtwitz et. al., 2015). Reverse innovation denotes the type of innovation that is adopted in poor economies (emerging and/or developing) first before 'trickling up' to rich countries (e.g. Govindarajan & Ramamurti, 2011). Interestingly, the managerial press has provided anecdotal evidence indicating increased innovation activities amongst EMFs (see for example, The Economist, 2010; Financial Times, 2011; Forbes, 2013). This emerging phenomenon appears to have somehow been neglected in the wider literature on innovation management.

The very few studies within the slowly evolving body of knowledge on EMFs' innovations, have solely focused on the innovation barriers existing in emerging markets (e.g. Aidis & Welter, 2008). Our literature search on innovation amongst EMFs yielded two distinct empirical studies by Zhou and Li (2008) and Ayyagari *et al.* (2011) that have focused on EMFs' drivers for innovation. Ayyagari *et al.* (2011) highlighted that firm governance, financial development, and intensive competition in the product market are drivers of innovation.

Likewise, Zhou and Li's (2008) examination of innovation by emerging market-based international joint ventures concluded that the agglomeration of innovative activities, the balance and distance of foreign ownership, state partnership, pace of industry innovation, and legitimisation of foreign direct investments were significant drivers of innovation in EMFs. From the two empirical studies highlighted above, Zhou and Li's (2008) focus on international business provided our study with the building blocks to further develop and advance new knowledge defining the specific manoeuvres internationalising EMFs use to enhance their innovations. We argue that the more we study internationalisation as a factor that drives innovation (Kissa, Danis, & Cavusgil, 2012) in internationalising EMFs, the more we can understand the specific ways they enhance their product innovations in markets that are often neglected in the literature on internationalisation and innovation. Indeed, we use the following important business management question to guide our study:

In which ways do internationalising EMFs enhance their product innovations in emerging markets?

To address this important question, we draw on the resource-based view. Specifically, we utilise RBV to explicate how the resources and capabilities acquired through internationalisation militate innovation in EMFs. From our statistical manipulations a pattern showing how internationalising EMFs take advantage of international physical recourses, international marketing capabilities, international managerial experience, managerial perception of industry internationalisation, and international outsourcing emerged. On that basis, we present new insights on EMFs and thus advancing RBV in new ways through defining particular resource-seeking behaviours EMFs exhibit in emerging market. Thus, the contributions we make are threefold.

First, we integrate the resource-based view of the firm with internationalisation theories in order to illuminate the importance of international-orientation (Okada and Dana, 2017) in product innovation in emerging markets. Second, our paper compares and contrasts internal and external resources in order to illustrate their distinct roles in the product innovation processes. Third, as innovation is influenced by variables at multiple levels (Ramadani et al., 2017), it can be considered a multi-level phenomenon. Thus, we adopt a similar approach followed by Ramadani et al. (2019) research which utilised a multistage estimation technique to understand to study product innovation and firm performance in transition economies. From that perspective, our application of hierarchical linear modeling to account for the nested structure of the data contributes to the growing innovation management literature that focusses on multilevel theory and method.

Conceptual framework

Product Innovation

Innovation is a well-established concept of change and it is often associated with the works of Schumpeter (1939). Particularly, his arguement that "innovation is possible without invention and invention does not necessarily induce innovation" and "the making of the invention and the carrying out of the corresponding innovation are, economically and sociologically, two entirely different things" (Schumpeter (1939 p.84-85). Building on this, Ruttan (1959) defined innovation function of production. In his view, the production function describes the way in which the quantity of products varies if the quantity of factors varies. If, instead of varying quantities of factors we vary the form of function, we have a new innovation (Ruttan, 1959).

In line with Ruttan's view of innovation, it is conceivable that innovation is the function resulting from the interplay between several factors including; the motivation to innovate, the strength of obstacles against innovation, and the availability of resources for overcoming such obstacles Mohr, 1996; Kriz and Welch, 2018). Innovation can occur along different dimensions ranging from product innovation, production process innovation to organisational innovation (Trott, 2012). Product innovation begins when the firm develops a new product/service with the ultimate goal of introducing it to the market (Utterback and Abernathy, 1975; Tidd and Bassett, 2009). Such a process is completed when the firm diffuses the innovation through sales of the new product/service (Kuznets, 1962; Peresa, Mullerc and Mahajan, 2010).

Although Utterback and Abernathy (1975) dated but routinely cited works on process and product innovation argues that when measured overtime the benefits of product innovations are marginal, nevertheless increasing evidence has since emerged showing that product innovation has numerous advantages for organisational performance (see for example: Ramadani et al., 2017). Moreover, Li and Atuahene-Gima (2001) used the example of New Technology Ventures in China to statistically demonstrate product innovation can be used as a strategy for performance and development. Likewise, Leiponen and Helfat (2010) statistically proved that greater breadth of innovation objectives and knowledge sources is associated with greater innovation success at the firm level. Similarly, Ramadani et al. (2019) focussed on transitioning economies to measure the impact of innovation on firms' performance. Studies elsewhere (e.g. Awate, Larsen, and Mudambi, 2012; Kriz and Welch, 2018; Li *et al.*, 2012) have focused on internationalisation and innovation. These works have provided new direction and insights into capability development for product and process innovation.

Thus, this study builds on these on these scholarly works and it contributes to the literature on internationalisation and innovation by focusing on the innovative activities of a distinctive type of firms – EMFs.

Internationalisation

The literature on firm internationalisation is rich and diverse (see for example: Cantwell, 1991; Knight and Cavusgil, 2004; Kyla" heiko et al., 2010; Nyuur et al., 2018; Oviatt and McDougall, 1997; Rialp, Rialp and Knight, 2005). According to Lehtinen & Penttinen (1999, p.13) "the internationalisation of a firm concerns the relationships between the firm and its international environment, derives its origin from the development and utilisation process of the personnel's cognitive and attitudinal readiness and is concretely manifested in the development and utilisation process of different international activities, primarily inward, outward, and cooperative operations". In that regard, it is possible that internationalisation takes place along several dimensions. Indeed, the vast majority of the literature on firm internationalisation acknowledges that the degree of internationalisation (DOI) of a firm can be measured by international sales, foreign assets, managers' international experience, number of overseas subsidiaries, and dispersion of overseas subsidiaries (Sullivan, 1994). Plus, foreign ownership can be used as a measurement of the DOI (Dunning, 2001; Hassel et al., 2003). On the basis that internationalisation includes collaborative modes, Ietto-Gillies & London (2009) argued that outsourcing and international partnership should also be used to measure DOI. Additionally, managerial cognitive and attitudinal readiness should be measures of DOI since they determine firm's international strategic decision-making (Nielsen & Nielsen, 2011). In other words, the internationalisation of a firm is manifested in the international level of its resources and capabilities.

Indeed, in the context of EMFs their ability to innovate is dependent on their capacity to learn and to integrate diverse knowledge and resources (Yamakawa *et al.*, 2008). Thus, for these new types of firms internationalisation can be a catalyst for their learning, for acquiring innovative capabilities (Wu, *et al.*, 2016) and for developing new products and/or services.

Resource-based view

The Resource-Based View of the firm (RBV) has been widely recognized as one of the top three most insightful theories when exploring emerging economies (Hoskisson et al., 2000; Peng, 2001). It is also relevant for understanding the mechanisms underlying innovation (Verona, 1999; Katila and Shane, 2005). From that perspective, a firm can be described as a unit of linked and idiosyncratic resources and resource conversion activities (Penrose, 1959; Rumelt, 1997). The resource-based view explains the connection between the firms' resources and its capabilities (Hart, 1995; Wernerfelt, 1985, Teece, 2012). According to (Helfat & Peteraf, 2003) resources are assets or production inputs that a firm owns or have access to, whereas capabilities are the ability to use resources to achieve organisational goals (Helfat & Peteraf, 2002). A firm can obtain sustained competitive advantage when the resources and capabilities it controls are valuable, rare, imperfectly imitable, and not substitutable (Barney, 1991; Barney, Wright, & Ketchen, 2001; Hitt, Xu and Carnes, 2016). The configuration of firm's resources and capabilities is path-dependent in terms of both history and location (Leonard-Barton, 1992; Teece, 2009). As such, it can be significantly changed when the firm internationalises. So, to examine how a firm's resources and capabilities acquired as a result of internationalisation influence the firm's product innovations, we use the model proposed in Verona's (1999) conceptual paper and adapt it by including the variables that are related to internationalisation.

This model delineates that innovation is determined by both internal and external integrative resources and capabilities of the firm (figure 1).

Figure 1 around here

Hypotheses

Internal integrative resource capabilities

International physical resources

Johnson's (2010) analysis of the natural history of innovation reveals that "the adjacent possible" sets the limits and the creative potential of change and innovation because it determines first-order reactions necessary to recognise the need for changes and make it possible for changes to happen. When a firm has foreign operations, it is exposed to new ideas, new connections, new challenges and new possibilities (Dana et al., 2019). Therefore, it is likely to be pushed and pulled into innovation.

Hypothesis 1a: Production in other countries is positively related to product innovation.

Hypothesis 1b: Number of foreign establishments in foreign countries is positively related to product innovation.

International marketing capabilities

Marketing capabilities can be an important function of knowledge (Day, 1994). When sales in foreign markets become increasingly important to the firm, it has to innovate to adapt its products to the foreign markets (Reková, 2018; Simba and Ndhlovu, 2014). Indeed, international diversification is theorised to intensify research and development and it thus increases firm innovation (Dana, 2017; Hitt, Hoskisson, & Kim, 1997). Boso's *et al.* study of 164 Ghanaian exporters (Boso, Cadogan, & Story, 2013) revealed that both export entrepreneurial-oriented behavior and export market-oriented behavior positively drive export product innovation success.

Hypothesis 2: International sales are positively related to product innovation.

Managerial international experience

A major condition for innovation is managerial support for creative activities. Previous research (see for example: Cohen and Levinthal, 1990; Zahra and George, 2002) shows that managerial processes are important determinants of innovation. Managers must have the competencies to recognise and manage innovative activities (Bassett-Jones, 2005). International experience, which is reflected in prior work experience, education, and cultural exposure, positively affects managerial performance (Takeuchi et al., 2005; Sapienza et al. 2006) and removes barriers to innovation (Freel, 2000). The amount of formal education of a management team will be positively associated with innovation (Hambrick & Mason, 1984).

Hypothesis 3a: Percentage of managers born abroad is positively related to product innovation.

Hypothesis 3b: Percentage of managers having foreign MBA is positively related to product innovation.

Hypothesis 3c: Percentage of managers having worked in multinational firms is positively related to product innovation.

Managerial perception of internationalisation

Several studies in the literature (see for example: Tybout, 2000; Pamukcu, 2003; Baldwin and Robert-Nicoud, 2008) offer ample empirical evidence that trade liberalisation creates tougher market competition and that this increase in market competition affect firms' incentive to innovate. Indeed, Gorodnichenko and Terrell (2010) found that foreign competition pushes a firm to innovate in order to survive. This happens only when the mangers are aware of the competition since managerial making processes are boundedly rational (Aharoni, Tihanyi & Connelly, 2010).

Hypothesis 4a: Competition from imports as perceived by the managers is positively related to product innovation.

Hypothesis 4b: Competition from multinationals in the same market as perceived by the managers is positively related to product innovation.

Foreign ownership

Investors have a certain degree of influence on a firm's management approach because of their interest in protecting their investments and earnings. Javorcik (2004) found that foreign direct investments enhance domestic firm's productivity in projects with shared domestic and foreign ownership. Research shows that multinational subsidiaries generally outperform domestic firms because multinationals transfer superior technologies and organisational practices –in the form of new product and process innovation –to their foreign subsidiaries (Guadalupe, Kuzmina & Thomas, 2012).

Therefore, the existence of foreign ownership in domestic firms has important implications for firm innovation (Okada and Dana, 2017). We can expect foreign owners to be a motivator of a firm's innovation.

Hypothesis 5: Foreign ownership in domestic firm is positively related to product innovation.

External integrative capabilities

International consultants

According to Bessant and Rush (1995) there is a positive relationship between having consulting services and innovation because of consultants' intermediary roles in bridging the "managerial gap" and technology transfer. Furthermore, international consultants' knowledge of international markets and new technology can contribute to innovation processes which are highly knowledge-intensive (Strambach, 2001). Similarly, Tether and Tajar (2008) demonstrated that having international consulting services will accelerate a firm's innovation.

Hypothesis 6: Using international consultants is positively related to product innovation

Outsourcing

Glass and Saggi (2001) explained that international outsourcing to low-wage countries lowers the marginal cost of production and thus increases productions and creates greater incentives for innovation. Furthermore, when firms outsource their production, they can concentrate on high value-added activities such as marketing, research and development, etc. (Quinn, 1999; Gilley and Rasheed, 2000). Moreover, firms can also benefit from their international suppliers' resources and capabilities as well as feedbacks for innovation (Weeks & Feeny, 2008).

Hypothesis 7: Outsourcing to other countries is positively related to product innovation

Methodology and data analysis

Sample

Our sample is composed of 212 firms from the following 10 emerging markets in Central and Eastern Europe and Central Asia: Belarus, Ukraine, Lithuania, Poland, Bulgaria, Romania, Russia, Serbia, Kazakhstan, and Uzbekistan (roughly 21 companies per country). Even though these countries are in close geographic proximity and share similar historical experiences (communism, command economy, etc.), their patterns on development became increasingly divergent after the collapse of the Soviet Union and firms from these counties exhibit significant variation in innovation and internationalisation, which makes them an interesting subject for analysis of the effects of firm's internationalisation on innovation.

Variables

Dependent variable

Our dependent variable is firm product/service innovation, operationalised as a composite index of introduction of new product/service and sales from new product/service. The data for the three components of the innovation index is derived from the Management, Organisation, and Innovation Survey 2009 offered by the World Bank Enterprise Survey project.

Independent variables

Our independent variables are divided into two categories:

- 1. The category of internal integrative resources and capabilities is presented by five groups described as follows. First, international physical resources group is operationalised by two variables namely; firm having production abroad and number of foreign establishments. Second, international marketing capabilities group is operationalised by one variable of firm having its main products sold mostly abroad. Third, managerial international experience group is operationalised by three variables, namely firm having managers born aboard, firm having managers with foreign MBA, and firm having managers having worked in multinational firms. Fourth, managerial perception of the industry's internationalisation group is operationalised by two variables namely; perceived competition from multinationals in the same market and perceived competition from imports and fifth, foreign ownership group is operationalised by one variable of foreigners having a share of the firm but owning no less than 25 %.
- 2. The category of external integrative resources and capabilities is operationalised by the two variables: using international consultants and outsourcing to other countries.

The data for the independent variables also comes from the Management, Organisation, and Innovation Survey 2009 offered by the World Bank Enterprise Survey project.

Control variables

We control for country and industry using dummy variables. We also control for the following factors: firm size, firm age, overall competition in the industry, R&D spending, the level of education of all employees, state-ownership, and years being privatised (which is especially relevant given the context of the emerging economies that take part in the analysis). The data for the control variables is obtained from the Management, Organisation, and Innovation Survey 2009 offered by the World Bank Enterprise Survey project.

Analysis

First, we conduct the checks for heteroskedasticity and normality; the analyses show satisfactory results. Next, we perform multiple regression analysis to test all the hypotheses discussed above. We test for multicollinearity using variance inflation factors (VIFs) to eliminate the risk of suppressor effects in multiple regression analyses (Hair, Anderson, & Tahtam, 1987). VIF indexes measure how much the variance of an estimated regression coefficient is increased because of collinearity. The test indicates that VIF indexes are well below the usually recommended cut-off score of 10 (Kutner, Nachtsheim, & Neter, 2004). The VIF scores range from 1.63 to 5.4. The effects of independent variables on the dependent variable – innovation – are presented in Table 1.

Insert Table 1 around here

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The results of the analysis indicate that most of the hypotheses of the effects of different internationalisation factors on firm product/service innovation are supported. The non-supported hypotheses are 3a (managers born abroad), 4a (competition from imports), 5 (foreign ownership) and 6 (using international consultants) as the relationships between these 4 internationalisation variables and innovation are not statistically significant. The rest of the variables show important statistically significant effect on emerging market firm service/product innovation.

Discussion and conclusion

This article has offered a systematic analysis of the impact of internationalisation on product innovation in emerging markets by showing how EMFs configure their internationally acquired resources and capabilities. It highlighted the relevance of the resourced-based view of the firm in understanding EMFs' product innovations. More importantly, from our data analysis it became evident that internationalisation is an important driver of innovation on multiple fronts. EMFs that internationalise into foreign markets will have access to resources that are otherwise not available in their domestic market (McDougall and Oviatt, 1996). Moreover, critical mass and production established in the different countries EMFs operate in, is a source for their product innovations. As such, the benefits arising from internationalisation would include but not limited to new knowledge and information that complements their internal resources and capabilities (Teece *et al.*, 1990). However, it is worth noting that internationalisation as a determinant of EMFs' innovativeness maybe hindered by different cause, which we did not account for in this study but have been highlighted elsewhere (e.g. Dana et al., 2019; Fernández-Ortiz & Lombardo, 2009).

These may include but not limited to the loss of competitive advantage in foreign markets, the creation of disadvantages, technical restrictions to trade or insufficient financing (Cuervo-Cazurra, Maloney, and Manrakhan, 2007; Orlandi, 2006).

Notwithstanding the above, sampled internationalising EMF tend to integrate such behavior with export market-oriented behavior (Simba and Ndlovu, 2014) to drive their export product innovations. From this it is clear that their propensity to evoke their entrepreneurial marketing capabilities (Chaston, 2016) even by adopting a risk adverse strategy e.g. export market-oriented, would enable EMFs to gather informative foreign market data that would enhance the innovation in the products/services they export. Considering the ways in which EMFs undertake commercial activities to do with product innovation in multiple countries, it is logical to conclude that their application of diversification as a method for market development positively influence their international sales. In that regard, diversification can be seen as an important international marketing strategy (Simba and Ndlovu, 2014). To effectively execute such a strategy, this study statistically proved that the international experience of managers running these EMFs play an important role. But, the countries in which EMFs' managers were born appeared to matter less in that regard. Their skills base and international experience (Oviatt and MacDougal, 1996), though, appeared to be important factors that directly influence their ability to foster product innovations in their firms.

This is also supported in the mainstream literature on internationalisation which acknowledges that international diversification strategies require managerial skills capable of positioning businesses efficiently especially within a complex international environment (Fernández-Ortiz & Lombardo, 2009; Madsen 2007; McDougall and Oviatt, 2005).

With respect to the managerial perception of industry internationalisation the study proved that perceived competition from MNCs operating in the same market as EMFs, drives them to produce innovative products. This finding aligns with the studies that have shown that hypercompetitive markets drive product innovation among firms (Cavusgil, 2014).

International outsourcing is another important innovation activity that was shown to be a key determinant of innovation in EMFs. Indeed, outsourcing production services to established and reputable organisations for example enabled EMFs to bridge their resources gap by access cuttingedge technology, expertise and experience thereby significantly enhancing their product innovations. This observation is also supported in the strategic management literature (e.g. Thompson and Martin, 2010). Maybe, a major issue for using consultancy services is their lack of understanding the embedded firm practices. According to Johnson *et al.*, (2014) a misalignment between organisational culture and established business routines may have devastating consequences for firms. This and other issues highlighted above may have important implications for EMFs managers.

Managerial implications

Innovation is critical for firm development and performance (Ramadani, et al., 2019), so EMFs should implement measures that foster innovation within the firm. First, they should recruit managers with previous experience in MNCs because they play a key role in fostering product innovation. EMF should also develop policies that will be intended to attract foreign MBA degree holders for managerial positions and enable their managers to go abroad for higher education. Our results show that having foreign establishments complemented overseas productions significantly improves innovation. Therefore, firms that want to be innovative should be bold and venture abroad even when doing so may cause losses in the short-run. This can be considered to be investments for improving resources and capabilities for long-term gain through innovation. In short, internationalisation should be perceived as a long-term strategic choice to foster innovation in order to achieve better firm performance.

Policy implications

Since innovation is important for economic development Wong et al., 2005; Howells, 2005; Szirmai et al., 2011), public policy makers should provide incentives for firms to innovate. As firms having managers with MBA degrees from foreign countries tend to innovate more, governments can create programs that encourage people to seek foreign education. This can be done through a number of mechanisms such as providing grants and financial assistances to students to go abroad, education cooperation with other countries, education fairs to help foreign business schools to recruit local people, etc.

A significant relationship between innovation and having managers with experience working in multinational corporations as well as perception of competition from multinationals suggests that countries should open their economy for foreign competition. They should have policies that attract multinationals to invest so that local firms can enjoy the spillover effects. At the same time, they should establish recruitment policies whereby MNFs will have to hire local people. In doing the host country will benefits from having a workforce with higher degree of international exposure which can drive up innovation of local firms.

Companies that have strong international sales as well as those operating abroad have high tendency to innovate. Therefore, governments should have policies that encourage local firms to venture abroad. Several measures such as tax incentives, technical supports, trade agreements, trade liberalization etc. have proven to be effective ways of encouraging local firms to internationalize.

References

- Acs, Z. J., & Audretsch, D. B. 1987. Innovation, market structure, and firm size. *The Review of Economics* and Statistics: 567-574.
- Aharoni, Y., Tihanyi, L., & Connelly, B. L. 2010. Managerial decision-making in international business: A forty-five-year retrospective *Journal of World Business*, Article in press.
- Aidis, R., & Welter, F. 2008. Innovation and Entrepreneurship: Successful Start-ups and Businesses in Emerging Economies. Northampton, MA: Edward Elgar.
- Ayyagari, M., Demirgüç-Kunt, A., & Maksimovic, V. 2011. Firm Innovation in Emerging Markets: The Role of Finance, Governance, and Competition. *Journal of Financial and Quantitative Analysis*, 46(6): 1545-1580.
- Awate, S., Larsen, M.M. and Mudambi, R., 2012. EMNE catch-up strategies in the wind turbine industry: Is there a trade-off between output and innovation capabilities? *Global Strategy Journal*, 2(3), pp.205-223.

- Baldwin, R., & Robert-Nicoud, F. 2008. Trade and Growth with Heterogenous Firms. Journal of International Economics, 74(1): 21-34.
- Barney, J. B., Wright, M., & Ketchen, D. J., Jr. 2001. The resource-based view of the firm: Ten years after 1991. *Journal of Management*, 27(6): 625-641.
- Bassett-Jones, N. 2005. The paradox of diversity management, creativity and innovation. *Creativity and Innovation Management*, 14(2): 169-175.
- BBVA Research. 2012. EAGLEs Economic Outlook. Madrid, Spain.
- Bessant, J., & Rush, H. 1995. Building bridges for innovation: the role of consultants in technology transfer. *Research Policy*, 24(1): 97-114.
- Boso, N., Cadogan, J. W., & Story, V. M. 2013. Entrepreneurial orientation and market orientation as drivers of product innovation success: A study of exporters from a developing economy. *International Small Business Journal*, 31(1): 57-81.
- Cohen, W. M. 2010. Fifty years of empirical studies of innovative activity and performance. *Handbook of the Economics of Innovation*, 1: 129-213.
- Cohen, W. M., & Levinthal, D. A. 1990. Absorptive capacity: a new perspective on learning and innovation. *Administrative Science Quarterly*, 35(1): 128-152.
- Corsi, S., A. Di Minin, and A. Piccaluga 2014. Reverse innovation at Speres: a case study in China. *ResearchTechnology Management* 57(4): 28-34.
- Cuervo-Cazurra, A. 2008. The multinationalization of developing country MNEs: The case of multilatinas. *Journal of International Management*, 14(2): 138-154.
- Damanpour, F. 1991. Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of Management Journal*, 34(3): 555-590.
- Dana, L.P., Gurău, C., Hoy, F., Ramadani, V. and Alexander, T., 2019. Success factors and challenges of grassroots innovations: Learning from failure. *Technological Forecasting and Social Change*. (2019), DOI: https://doi.org/10.1016/j.techfore.2019.03.009.
- Dana, L.P., 2017. International entrepreneurship research: how it evolved and directions for the future. *International Journal of Entrepreneurship and Small Business*, 30(4), pp.477-489.
- Danneels, E. 2002. The dynamics of product innovation and firm competences. *Strategic Management Journal*, 23(12): 1095-1121.
- Day, G. S. 1994. The capabilities of market-driven organization. Journal of Marketing, 58(1): 37-52.
- Dunning, J.H., 2001. The eclectic (OLI) paradigm of international production: past, present and future. International journal of the economics of business, 8(2), pp.173-190.
- Ernst, H. a. 2016. Innovation in Emerging Markets. In J. H. a. R. Ernst (Ed.): Palgrave Macmillan Limited.
- Enerst and Young, 2018. *Driving growth through innovation in Vietnam*, EYG no. 01599-185GBL Available at: http://www.ey.com/Publication/vwLUAssets/ey-driving-growth-through-innovationreport-vietnam/\$FILE/ey-driving-growth-through-innovation-report-vietnam.pdf, Accessed on 07.06.2018
- Ervits, I. and Zmuda, M., 2018. A cross-country comparison of the effects of institutions on internationally oriented innovation. *Journal of International Entrepreneurship*, 16(4), pp.486-503.
- Fernández-Ortiz, R. & Lombardo, G. F., (2009) Influence of the capacities of top management on the internationalisation of SMEs, *Entrepreneurship and Regional Development*, 21:2, 131-154, DOI: 10.1080/08985620802176104

- Financial Times. 2011. *Innovation in emerging markets*, Financial Times. <u>http://www.ft.com</u>: The Financial Times Ltd.
- Forbes. 2013. Why Emerging Markets Are More Innovative Than America. In H. Shaughnessy (Ed.), January 17, 2013 ed.: Forbes.
- Freel, M. S. 2000. Barriers to product innovation in small manufacturing firms. *International Small Business Journal*, 18(2): 60-80.
- Gilley, K. M., & Rasheed, A. 2000. Making more by doing less: an analysis of outsourcing and its effects on firm performance. *Journal of Management*, 26(4): 763-790.
- Glass, A. J., & Saggi, K. 2001. Innovation and wage effects of international outsourcing. European *Economic Review*, 45(1): 67-86.
- Goffin, K. and Mitchel, R., (2017). *Innovation Management: Effective Strategy Implementation*, 3rd Edition, Macmillan Education Palgrave, NY. ISBN: 978-1-137-37343-4
- Gorodnichenko, Y., & Terrell, J. S. K. 2010. Globalization and Innovation in Emerging Markets. American Economic Journal: Macroeconomics, *American Economic Association*, 2(2): 194-226.
- Govindarajan, V., & Ramamurti, R. 2011. Reverse innovation, emerging markets, and global strategy. *Global Strategy Journal*, 1(3-4): 191-205.
- Guadalupe, M., Kuzmina, O., & Thomas, C. 2012. Innovation and foreign ownership. *The American Economic Review*, 102(7): 3594-3627.
- Hair, J. F., Anderson, E. R., & Tahtam, L. R. 1987. *Multivariate Data Analysis*. New York, NY: Macmillan Publishing Company.
- Hambrick, D. C., & Mason, P. A. 1984. Upper Echelons: The Organization as a Reflection of Its Top Managers. *Academy of Management Review*, 9(2): 193-206.
- Hassel, A., Höpner, M., Kurdelbusch, A., Rehder, B., & Zugehör, R. 2003. Two Dimensions of the Internationalisation of Firms. *Journal of Management Studies*, 40(3): 705-723.
- Helfat, C. E., & Peteraf, M. A. 2002. The birth of capabilities: market entry and the importance of prehistory. *Industrial and Corporate Change*, 11(4): 725-760.
- Helfat, C. E., & Peteraf, M. A. 2003. The dynamic resource-based view: capability lifecycles. Strategic Management Journal, 24(10): 997-1010.
- Hitt, M. A., Hoskisson, R. E., & Kim, H. 1997. International diversification: Effects on innovation and firm performance in product-diversified firms. *Academy of Management Journal*: 767-798.
- Hoskisson, R. E., Eden, L., Lau, C. M., & Wright, M. 2000. Strategy in emerging economies. Academy of Management Journal: 249-267.
- Howells, J. 2005. Innovation and regional economic development: A matter of perspective? *Research Policy*, 34(8): 1220-1234.
- Hult, G. T. M., Hurleyb, R. F., & Knight, G. A. 2004. Innovativeness: Its antecedents and impact on business performance. *Industrial Marketing Management*, 33(5): 429-438.
- Ietto-Gillies, G., & London, S. 2009. Conceptual issues behind the assessment of the degree of internationalisation. *Transnational Corporations*, 18(3): 59-83.
- Javorcik, B. S. 2004. Does foreign direct investment increase the productivity of domestic firms? In search of spillovers through backward linkages. *The American Economic Review*, 94(3): 605-627.

- Johnson, S. 2010. Where Good Ideas Come From: The Natural History of Innovation. New York, NY: Riverhead Books.
- Juma, C. 2017. Innovation in emerging markets. International Affairs, 93(3).
- Kafouros, M. I., Buckley, P. J., Sharp, J. A., & Wang, C. 2008. The role of internationalisation in explaining innovation performance. *Technovation*, 28(1-2): 63-74.
- Katila, R., & Shane, S. 2005. When does lack of resources make new firms innovative? *The Academy of Management Journal*, 48(5): 814-829.
- Khanna, T., Palepu, K. G., & Bullock, R. J. 2010. *Winning in Emerging Markets: A Road Map for Strategy and Execution*. Boston, MA: Harvard Business Press.
- Kissa, A. N., Danis, W. M., & Cavusgil, S. T. 2012. International entrepreneurship research in emerging economies: A critical review and research agenda. *Journal of Business Venturing*, 27(2): 266–290.
- Kriz, A. and Welch, K., 2018. "Innovation and internationalisation processes of firms with new-to-theworld technologies." *Journal of International Business Studies* 49(4): pp. 496-522.
- Kutner, M., Nachtsheim, C., & Neter, J. 2004. Applied Linear Regression Models (Fourth edition ed.). Boston, MA: McGraw-Hill Irwin.
- Kuznets, S. 1962. Inventive activity: Problems of definition and measurement. In N. B. o. E. Research (Ed.), *The rate and direction of inventive activity: Economic and social factors: 19-42.* Princeton: Princeton University Press.
- Lehtinen, U., & Penttinen, H. 1999. Definition of the Internationalisation of a Firm. In U. Lehtinen, & H. Seristö (Eds.), *Perspectives on Internationalisation: 3-19*. Helsinki: Helsinki School of Economics and Business Administration.
- Leonard-Barton, D. 1992. Core capabilities and core rigidities: A paradox in managing new product development. *Strategic Management Journal*, 13(S1): 111-125.
- Li, H., Zhang, Y., Li, Y., Zhou, L.A. and Zhang, W., 2012. Returnees versus locals: who perform better in china's technology entrepreneurship?. *Strategic Entrepreneurship Journal*, 6(3), pp.257-272.
- Luo, Y., & Tung, R. L. 2007. International expansion of emerging market enterprises: A springboard perspective. *Journal of International Business Studies*, 38(4): 481-498.
- Marco Zeschky, B. W. O. G. 2011. Frugal Innovation in Emerging Markets. Research-Technology Management, 54(4).
- Mohr, L. B. 1969. Determinants of innovation in organizations. *The American Political Science Review*, 63(1): 111-126.
- Nielsen, B. B., & Nielsen, S. 2011. The role of top management team international orientation in international strategic decision-making: The choice of foreign entry mode. *Journal of World Business*, 46(2): 185-193.
- Nyuur, R. B., Brecic, R., & Debrah, Y. A. (2018). SME international innovation and strategic adaptiveness: The role of domestic network density, centrality and informality. *International Marketing Review*, 35(2), 280-300.
- Oesterle, M.-J. 1997. Time-span until Internationalisation: Foreign Market Entry as a Built-in-mechanism of Innovations. *Management International Review*, 37(2): 125-149.
- Okada, T. and Dana, L.P., 2017. National media events and information and communication technology: innovative world fairs of the early 21st century. *International Journal of Entrepreneurship and Innovation Management*, 21(3), pp.234-241.

Pamukcu, T. 2003. Trade liberalization and innovation decisions of firms: lessons from post-1980 Turkey. *World Development*, 31(8): 1443-1458.

- Peng, M. W. 2001. The resource-based view and international business. *Journal of Management*, 27(6): 803-829.
- Peresa, R., Mullerc, E., & Mahajan, V. 2010. Innovation diffusion and new product growth models: A critical review and research directions. International Journal of Research in Marketing, 27(2): 91-106.
- Porter, M. E. 1990. The Competitive Advantage of Nations. Harvard Business Review, 68(2): 73-93.
- Quinn, J. B. 1999. Strategic outsourcing: leveraging knowledge capabilities. *Sloan Management Review*, 40(4): 9-21.
- Ramadani, V., Hisrich, R.D., Abazi-Alili, H., Dana, L.P., Panthi, L. and Abazi-Bexheti, L., 2019. Product innovation and firm performance in transition economies: A multi-stage estimation approach. *Technological Forecasting and Social Change*, 140, pp.271-280.
- Ramadani, V., Abazi-Alili, H., Dana, L.P., Rexhepi, G. and Ibraimi, S., 2017. The impact of knowledge spillovers and innovation on firm-performance: findings from the Balkans countries. *International Entrepreneurship and Management Journal*, 13(1), pp.299-325.
- Reková, E., 2018. Marketing Strategies of "Born Globals" Companies when entering the foreign markets. *Trends Economics and Management*, 12(31), pp.87-100.
- Reddy, P. 2011. Global Innovation in Emerging Economies. New York, NY: Routledge.
- Rogers, M. 2004. Networks, firm size and innovation. Small Business Economics, 22(2): 141-153.
- Rumelt, R. P. 1997. Towards a Strategic Theory of the Firm. In N. J. Foss (Ed.), *Resources, Firms, and Strategies: A Reader in the Resource-Based Perspective: 131-145.* New York, NY: Oxford University Press.
- Ruttan, V. W., 1959. Usher and Schumpeter on invention, innovation, and technological change. *The quarterly journal of economics*, 73(4) pp.596-606.
- Sapienza, H. J., Autio, E., George, G., & Zahra, S. A. 2006. A capabilities perspective on the effects of early internationalisation on firm survival and growth. *The Academy of Management Review* ARCHIVE, 31(4): 914-933.
- Schumpeter, J. A. 1939. Business Cycles: A Theoretical, Historical, and Statistical Analysis of the Capitalist Process (Volume I). New York and London: McGraw-Hill Book Company, Inc.
- Shane, S. 1993. Cultural Influences on National Rates of Innovation. *Journal of Business Venturing*, 8(1): 59-73.
- Saridakis, G., Idris, B., Hansen, J.M. and Dana, L.P., 2019. SMEs' internationalisation: When does innovation matter?. *Journal of Business Research*, 96, pp.250-263.
- Simba, A. and Ndlovu, T., 2014. The entrepreneurial marketing management and commercialization arrangements of born-global bio-enterprises: the case of UK companies. *Journal of Small Business & Entrepreneurship*, 27(2), pp.143-170.
- Strambach, S. 2001. Innovation processes and the role of knowledge-intensive business services (KIBS). Innovation networks. Concepts and challenges in the European perspective. Heidelberg: Physica-Verlag: 53-68.
- Sullivan, D. 1994. Measuring the Degree of Internationalisation of a Firm. *Journal of International Business Studies*, 25(2): 325-342.

- Szirmai, A., Naudé, W., & Goedhuys, M. 2011. Entrepreneurship, innovation, and economic development: Oxford Univ Pr.
- Takeuchi, R., Tesluk, P. E., Yun, S., & Lepak, D. P. 2005. An integrative view of international experience. *The Academy of Management Journal*, 48(1): 85-100.
- Teece, D. J. 2009. *Dynamic capabilities and strategic management: organizing for innovation and growth:* Oxford University Press, USA.
- Tether, B. S., & Tajar, A. 2008. Beyond industry–university links: Sourcing knowledge for innovation from consultants, private research organisations and the public science-base. *Research Policy*, 37(6): 1079-1095.
- The Economist. 2010. A special report on innovation in emerging markets, The Economist: 17-23.
- Trott. 2017. Innovation Management and New Product Development: Pearson.
- Trott, P. 2012. Innovation Management and New Product Development. Essex, England: Pearson Education Limited.
- Tybout, J. R. 2000. Manufacturing firms in developing countries: How well do they do, and why? *Journal* of *Economic literature*, 38(1): 11-44.
- von Zedtwitz, M, S. Corsi, P. Soberg, R. Frega 2015. A Typology of Reverse Innovation. *Journal of Product Innovation Management* 32(1): 12-28.
- Verona, G. 1999. A resource-based view of product development. *Academy of Management Review*, 24(1): 132-142.
- Weeks, M. R., & Feeny, D. 2008. Outsourcing: from cost management to innovation and business value. *California management review*, 50(4): 127-146.
- Wit, B. D. 2016. Strategy: An International Perspective. International Edition, CEGANGE
- Wong, P. K., Ho, Y. P., & Autio, E. 2005. Entrepreneurship, Innovation and Economic Growth: Evidence from GEM data. *Small Business Economics*, 24(3): 335-350.
- Yamakawa, Y., Peng, M. W., & Deeds, D. L. 2008. What Drives New Ventures to Internationalize from Emerging to Developed Economies? *Entrepreneurship: Theory & Practice*, 32(1): 59-82.
- Yuriy Gorodnichenko, J. S. a. K. T. 2010. Globalization and Innovation in Emerging Markets. *American Economic Journal: Macroeconomic*, 2(2): 194-226.
- Zahra, S. A., & George, G. 2002. Absorptive capacity: A review, reconceptualization, and extension. *Academy of Management Review*, 27(2): 185-203.
- Zhou, C., & Li, J. 2008. Product innovation in emerging market-based international joint ventures: An organizational ecology perspective. *Journal of International Business Studies*, 39(7): 1114-1132.

Figure 1: Impact of internationalisation on product innovation



Variables			Product innovation
Internal integrative resources and capabilities	International physical resources	Number of establishments abroad	0.45*** (0.003)
		Production in other countries	0.33*** (0.001)
	International marketing capabilities	International sales	0.20** (0.009)
	Managerial international experience:	Managers born abroad	-0.16 (0.169)
		Managers having foreign MBA	0.08** (0.036)
		Managers having worked in multinational firms	0.22*** (0.001)
	Managerial perception of the industry's internationalisation	Perceived competition from multinationals in the same market	0.15*** (0.002)
		Perceived competition from imports	0.40 (0.412)
	Foreign ownership		-0.007 (0.012)
External integrative resources and capabilities	International consulting		0.35 (0.364)
	International outsourcing		0.29** (0.013)
Control variables	Country		0.006 (0.009)
	Industry		0.61*** (0.001)
	Firm size		0.50*** (0.001)
	Firm age		0.13** (0.006)
	R&D spending		0.56*** (0.001)
	Overall competition in the industry		0.71 (0.725)
	Level of education of all employees		0.006*** (0.001)
	State-ownership		0.25 (0.261)
	Years being privatised		0.003 (0.008)
N= 212; R-squared=0.34 *p <0.05, **p<0.01, ***p<0.001 (two-tailed)			

 Table 1: Multiple regression of internationalisation factors on product innovation