Versatile capabilities for growth in the context of transforming countries: Evidence from Polish manufacturing companies

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Abstract: This study follows the newest extension to the resource-based view of company strategy, namely the versatility approach, to explain how resource-restrained companies may expand on international markets. The focus is on dynamic capabilities in marketing and innovation functions, which are conceptualized as versatile resources in the context of companies from transforming countries. The paper develops a model in which these two capabilities are linked with market expansion and product expansion, whereby market expansion facilitates product expansion. The survey data is based on a sample of 590 Polish companies and provides empirical support for the hypothesized links. The trade-off effect related to the parallel development of marketing capabilities and innovation capabilities receives partial support. The results are compared with prior research in the field and the observed international expansion paths of companies from transforming countries. The study contributes to the limited knowledge on organic, resource-based modes of growth among companies from transitional economies that expand in asymmetrical power international markets. Overall, the study recommends investing in marketing and innovation capabilities as versatile resources that can help companies from transforming countries to expand in competitive international markets.

Versatile capabilities for growth in the context of transforming countries: Evidence from Polish manufacturing companies

Companies from transforming countries (TC) are strongly motivated to grow. On the one hand, this motivation is due to the fact that they experience fierce competition from multinationals on their local markets, on the other entering foreign markets serves frequently as a ticket to larger turnovers and better sales margins. Applying a classic resource approach to understanding TC development strategies has its limitations because TC companies are relatively restrained in their capacities to develop valuable, rare, inimitable, and nonsubstitutable resources (Barney 1991; Barney, 2001). Although we have seen many TC companies become very successful in their international operations in the last two decades, we tend to attribute such successes mainly to network-based strategies, while the mechanisms such companies' organic growth, i.e. developing growth competencies based on own resources, have been largely unexplored. The last two decades have provided many practical examples of TC companies that have introduced specific strategies to mitigate their resource limits and challenge rivals from more advanced countries in their home markets. These successes were usually not based on cutting-edge technologies, but very effective adaptation to foreign market requirements (Caputo et al. 2016). Although the international successes of some Asian, and especially Chinese, companies are widely acknowledged, companies from other developing countries have also made huge progress on global markets. In particular, post-communist Central and Eastern European countries (CEE) were largely neglected in prior studies on resource-based international growth, while companies from these countries stand out due to their vigorous approach and interesting practices in international markets (see Caputo et al. 2016; Dikova et al. 2016; Kowalik et al. 2020; Jankowska et al. 2020).

This study expands our knowledge on the organic growth modes of TC companies by focusing on specific capabilities these companies may develop to leverage international expansion. The study focuses on two types of capabilities, marketing capabilities and innovation capabilities, and asks the question whether the application of such capabilities may enable the growth of manufacturing companies in the TC context. In doing so, the study combines insights from the versatility approach to company resources (Nason and Wiklund 2018) and the dynamic capabilities view (Teece et al. 1997; Eisenhardt & Martin, 2000) to

propose a research model with dynamic marketing capabilities (DMC) and dynamic innovation capabilities (DIC) as strategic versatile resources, i.e. contributing to dual strategic growth: expansion on foreign markets and a move towards introducing product innovations. Apart from a study by Weerawardena et al. (2015), conducted in the context of highly advanced economies, previous research did not test the combined influence of DMC and DIC on foreign market expansion and product expansion. Prior research conducted in the TC context has only illustrated that developing DMC facilitates the introduction of market innovations, while the links between DMC and market expansion, similarly to the links between DIC and market and product expansion have not yet been examined. Therefore, this study makes an important empirical contribution in terms of solving the dilemma of whether combined development of DIC and DMC makes sense in the context of TC companies expanding internationally. Specifically, data from surveyed Polish manufacturing companies is used to examine whether this combined development provides benefits for international expansion. The study also makes a conceptual contribution by employing DCV to conceptualize DIC and DMC as organizational level routines applied in TC manufacturing companies, and by employing the versatility concept to conceptualize the dual growth function of DIC and DMC in terms of the classic market-product dichotomy (Mishina et al. 2004). Last but not least, the study engages with the current debate on the meaning of VRIN and versatility criteria (Nason and Wiklund 2018) in valuing company resources, by providing a conceptual and empirical argument for the importance of the versatility criterion in the context of TC companies.

The paper is structured as follows. Our literature review starts by presenting dynamic capabilities and resource versatility as key concepts that frame our research approach, and we indicate how they are combined so as to uncover the meaning and the function of specific company resources in strategy research. Secondly, we describe the research context by explaining how Polish companies representing larger clusters of TC companies have built their strategic competencies and expanded internationally since the collapse of communism in Poland. Thirdly, we develop a hypothesized research model by defining dynamic marketing capabilities and dynamic innovation capabilities, and linking these constructs to two-dimensional growth, while also hypothesizing the interaction between these two capabilities. Fourthly, we present the empirical research design used to study the 590 Polish

manufacturing companies surveyed. PLS-SEM is used to test all hypothesized paths. Finally, we compare the results of our empirical research with prior research in the area, and present our research conclusions as well as limitations.

Dynamic capabilities concept - implementing organizational change to achieve growth

This study employs the dynamic capabilities view (DCV) to conceptualize how the capabilities and resources of Polish companies may be systematically transformed in strategic areas of their functioning on the market. DCV was originally proposed by Teece et al. (1997), where dynamic capabilities are processes enabling the adjustment of company resources to changing environmental conditions, namely: sensing, seizing opportunities, and systematic transforming of resources in ongoing cycles. Although in most rapidly changing sectors dynamic capabilities may take a more temporal form, e.g. simple rules related to some concrete managerial decisions, DCV generally assumes dynamic capabilities to be organizational routines, i.e. relatively stable processes learned by the members of an organization and reflected in organization behaviours (Di Stefano, et al. 2014; Eisenhardt and Martin 2000; Teece 2012). Therefore, when studying dynamic capabilities in companies, one should focus on change-related processes reproduced in the behaviour of employees, rather than the characteristics of decision-making or the mindsets of individual managers. According to DCV, aligning the company with changing business conditions occurs by revising ordinary resources and capabilities (Teece 2018), thus it entails organized and systematic change in functional areas such as manufacturing, sales, marketing or finances. The flexibility of the DCV approach is reflected in the assumption that depending on what is the best for a given company, dynamic capabilities translate into both combining and mobilizing existing resources (e.g. utilizing existing technologies and customer segments more effectively) and building new resources (e.g. introducing new products to meet new market segments) (Teece, 2007).

Resource versatility - fostering multiple use of resources for company growth

This study follows the concept of resource versatility (Nason and Wiklund 2018) to conceptualize how certain specific resources of resource-restrained firms may provide multiple paths for the growth of such firms. The resource versatility concept was recently

proposed by Nason and Wiklund (2018) to complement prior classical theories of company growth, especially works by Penrose (1959), and as an extension to the classical approach to winning resources or the resource-based view (Barney, 1991). In contrast to prior studies, in which the VRIN criterion assumes that resources as a strategic foundation must be valuable, rare, inimitable, and nonsubstitutable (Barney, 1991), the authors suggested that the resources companies use to foster their growth might be more common in the industry, but what makes them the foundation of company growth is the potential to execute ways of using them more productively (i.e. a new use for existing resources). In this approach, a broad range of company resources may be considered versatile, but what makes them versatile is "*offering a broad range of potential services*" (Nason and Wiklund 2018, p. 36). By comparing VRIN and versatility criteria with regard to prior studies focused on strategic company resources, Nason and Wiklund (2018) provided strong evidence that the versatility concept better explains company growth than the VRIN concept. In this study, we follow on from these findings and propose that two different resources - marketing capabilities and innovation capabilities - are versatile resources that enable a multiple growth path: towards both market expansion and product expansion.

To summarize, in figure 1 we introduce our general research model showing how this model employs the dynamic capabilities view (DCV) and the resource versatility (RV) framework in conceptualizing versatile resources used by companies to foster two-directional growth towards the classical company growth paths of market expansion and product expansion (Mishina et al. 2004). In the hypothesis development section, we will later present in detail how we define the main constructs in the model and how they are linked. However, in line with the literature gap we indicated in the introduction, we now present the specific features of Polish companies that will serve as the research context for our hypotheses.

Insert figure 1 here.

International expansion of Polish manufacturing companies as a TC research context

Poland is an interesting institutional context for developing a manufacturing business because it has specific features due to its geopolitical location, but also has common features that it shares with all transforming economies. The key aspect for the Polish economy in general and Polish manufacturers in particular is membership of the European Union, which means Polish companies' exports go mainly to EU countries (78.9% in 2004 and 80.3% in 2018) with German enterprises as the main export partners (35% in 2018) (Kapsa, et al. 2018; Osiecki 2019). Comparison of GDP per capita in Poland with GDP per capita in Germany reveals that the German economy is 3 times as strong as the Polish economy (Worldbank 2021), which indicates the developing status of the Polish economy and the necessity for Polish companies to face strongly asymmetrical power customer relationships in international supply chains (Siemieniako & Mitrega, 2018; Mitręga and Choi, 2021). In comparison with the most developed EU countries, the share of high technology products in the exports of Polish companies is smaller (8.5% in comparison to the EU average of 17.8% in 2017), however, in the years 2007-2017, this share grew 3 times faster than the EU average. It should also be mentioned that at the same time, the share of technologically advanced products (i.e. high and medium-high technology) has increased to almost a half of all Polish company exports (Chojna, et al. 2019). Additionally, when it comes to technologically advanced products exported by Polish companies since the economic crisis of 2008-2010, there has been a radical increase in the proportion of fully Polish-owned companies compared to Polish companies with foreign ownership (Chojna, et al. 2019). It is worth noting that Poland is the only country in the EU that has not been through a recession since the global crisis in 2008-2012, and since 2019 Poland has had a surplus in its international balance of trade (PAiH 2020). These tendencies illustrate the international expansion of Polish manufacturing companies within strongly asymmetrical power international supply chains that are still usually orchestrated by companies from the most developed countries, although Polish companies are gradually improving their position (compare with Bai, et al. 2021; Baraldi and Ratajczak-Mrozek 2019; Mitręga, et al. 2019). Although the international successes of Polish companies may be less well known than the successes of companies from

big developing countries, especially China, these successes are highly significant considering the size of the Polish economy. Today, strong Polish brands are easily identifiable in EU markets, including CD Projekt, Asseco, Comarch, Solaris, Reserved, Inglot and CCC.

Despite some specific features, Polish manufacturing companies have certain characteristics common for all companies in TC context. Poland is a country that since 1989 (i.e. the collapse of communism in the country) has been categorized as TC and as a result, similarly to in other TCs, the key challenge and the strategic necessity is fostering growth, especially the dynamic growth of Polish companies. In the context of a highly globalized worldwide economy, these strategic priorities entail international rivalry with companies from the most developed countries. Such international expansion of TC companies may occur via 3 main modes: organic, acquisitive and network-based (Peng et al., 2018). While network-based strategies have been researched the most (Baraldi and Ratajczak-Mrozek 2019; Pfajfar et al. 2019), and acquisition-based strategies are limited due to resource constraints, our knowledge about organic strategies for international growth in TC companies remains largely anecdotal (Dikova et al., 2016; Ciszewska-Mlinarič et al., 2020). The literature suggests that facing the resource advantages of big international companies (i.e. brand, R&D advantages), companies from transforming economies expand into foreign markets due to their capacity to synthesize and integrate existing resources, as well as formulate a quick, valuable response to markets (Peng et al., 2018). To compete with bigger companies, TC companies serve foreign markets not with high technology products, but rather by providing products of relatively good quality and at a relatively competitive price (Chittoor, et al. 2009; Luo, et al. 2011; Rein 2014). In turn, innovations developed by TC companies do not have to be the most technologically advanced, but they may be more convenient for foreign users because they are more effectively adjusted to foreign market needs (Prabhu and Jain 2015). As noticed by Dikova et al (2016), transforming companies are usually smaller than their rivals from developed countries and do not possess technological advantages, but they fill these gaps with organizational and strategic innovations, relatively high market flexibility and rapid learning.

Some recent studies illustrate two general paths for organic growth among TC companies in foreign markets. The first path, illustrated by some recent case studies (Siemieniako and Mitręga 2018; Zadykowicz et al. 2020), is that TC companies start their

activities mainly as first- or second-tier suppliers in international value chains orchestrated by big brand companies. In time, they improve their market knowledge, extend their portfolio of customers, and finally reposition themselves as recognizable brands with their own new products/services introduced onto the market. This trajectory means a gradual shift from contributing to the brand strength of other companies, usually of Western origin, to building one's own recognisability in the same or related industry. In the second path, most probably the less frequent one (Ďaďo, et al. 2015; Ciszewska-Mlinarič, et al., 2020), TC companies enter foreign markets with their own export products/brands from the very beginning, and after some time usually strengthen their position through direct foreign investments. Such internationalization usually means first entering similar post-communist EU countries, and then expanding towards the most competitive markets (Blanke-Ławniczak 2009). It is worth noting that in both of these trajectories, TC companies try to avoid open rivalry with big supply chain orchestrators at the early stages of their international expansion, but gradually strengthen their position in terms of the markets they operate in.

Marketing capabilities as dynamic capabilities

The literature on marketing capabilities dates back to the beginning of the century (Fahy et al. 2000; Hooley et al. 2005), and more recently dynamic marketing capabilities were conceptualized, aligning this stream of research with the dynamic capabilities framework in strategy research (Barrales - Molina, 2014; Weerawardena, et al. 2015, Mitręga, 2019). Morgan (2012) distinguished 9 types of marketing resources and 4 types of marketing capabilities, while Kozlenkova et al. (2014) demonstrated that brand, relational and knowledge resources have been most frequently studied in the marketing domain so far, and are widely supported as they correlate with company performance. In contrast to numerous works on ordinary marketing capabilities (e.g. Hooley et al., 1999; Morgan, et al. 2009; Cacciolatti and Lee 2016; Arunachalam et al. 2018; Martin and Javalgi 2016; Miocevic and Morgan 2018), which explain the function of marketing capabilities in increasing company efficiency, academic attention paid to the dynamic marketing capabilities (DMC) concept is relatively new (see the review of DMC works summarised in the appendix). In the context of what we know about the international strategies of TC companies, this study follows the young research perspective and assumes that for TC companies, DMC allow for

more than just enabling them to “make a living” (Winter 2003), i.e. DMC are seen as strategic resources redirecting the organization in new strategic directions. The existing DMC research is limited, but it provides initial support for DMC as a nomologically valid construct, especially concerning the functioning of companies that expand into international markets. DMC seems to be especially important on international markets characterized by relatively larger environmental ambiguity than in operations on the home market (e.g. Konwar et al. 2017; Weerawardena et al. 2015). Prior studies were mainly conducted in the context of developing countries, e.g. China (Falasca et al. 2017; Fang and Zou 2009) and India (Buccieri et al. 2020; Konwar et al. 2017), which corresponds with a study by Fainshmidt et al. (2016) concluding that such context amplifies the relevance of DCV. Therefore, this study defines DMC as *routinized cross-functional company processes that modify marketing resources in correspondence with changing market conditions, especially in the context of functioning in international markets*. Importantly, as the dynamic capabilities framework is followed in this study, the DMC concept is perceived and operationalized here as the specific orientation of the whole company, i.e. towards the refining of marketing resources, and not as a temporal feature of managerial decision-making in the companies analysed.

Innovation capabilities as dynamic capabilities

The literature on dynamic innovation capabilities (DIC), similarly to DMC literature, is at an early stage, but there is some evidence that such dynamic capabilities are very important for the growth of organizations. Noteworthy is that research on innovation capabilities has a longer tradition dating back to the beginning of this century (Lawson and Samson 2001; Peng and Wang 2000). However, the notion of DIC or “dynamic capabilities for innovation” appeared later (Lee and Kelley 2008; Lichtenthaler and Muethel 2012). The summary of DIC research so far is presented in the appendix.

In general, the literature provides several ways for conceptualizing innovation capabilities as dynamic capabilities: in one perspective, all innovation capabilities are dynamic capabilities per se, while in another DIC refers to the specific form in a larger set of innovation capabilities (Breznik and Hisrich 2014). Indeed, the theoretical links between innovation capabilities research and DCV are not clear, as research undertaken by scholars representing innovation management and strategic management tend to happen in isolation (Breznik and Hisrich 2014, p. 380), while the strong links between innovation capability and

dynamic capabilities constructs are visible even in the seminal DCV work, where dynamic capabilities are presented as capabilities dedicated to company innovations (Teece 1994, p. 541). The literature usually locates DIC at the level of cross-boundary spanning of organizational processes (Lichtenthaler and Muethel 2012; Cheng and Chen 2013; Wang et al. 2019), however, it is also suggested that managerial or leadership skills constitute the foundation of DIC because a specific managerial approach is needed to facilitate improvising and learning throughout the organization (Lee and Kelley 2008). However, this research does not focus on the origins of DIC in TC companies, so similarly to DMC, this study does not perceive them as individual level constructs, but instead as *cross-departmental processes facilitating company innovations* (Lawson and Samson 2001; Lichtenthaler and Muethel 2012; Wang et al. 2019). Importantly, in this approach DIC is not narrowed down to technical knowledge only or the behaviour of employees situated within a single business function, e.g. the NPD department or manufacturing, but instead it reflects orientation towards innovations among managers and employees from various departments (Lawson and Samson 2001; Lichtenthaler and Muethel 2012; Wang et al. 2019). Prior research provides evidence that such perceived DIC helps companies in developing breakthrough innovations (Lichtenthaler and Muethel 2012) and in keeping the company competitive on the market (Wang et al. 2019).

Hypotheses development for DMC and DIC as versatile capabilities

DMC can be applied as a versatile resource in the dual product-market expansion of TC firms because DMC entails systematically refining marketing resources (e.g. investing in modern marketing tools, adjusting to specific requirements of the export market), which seem to be crucial in the international growth strategies of TC companies as described earlier in the manuscript. Either TC companies grow internationally through strengthening their position in the global supply chain orchestrated by big brand companies (Siemieniako and Mitręga 2018; Zadykowicz et al. 2020), or they build the recognisability of their own brands in neighbouring countries (Ďaďo, J., et al. 2015; Ciszewska-Mlinarič et al., 2020). However, both of these trajectories involve systematic investments in some ad-hoc marketing adjustments and building strategic knowledge about foreign customers regarding routinized adjustments while entering new foreign markets, thus mirroring the core premise

of DCV (Barrales - Molina et al. 2014). In both of these trajectories, DMC translates into using various marketing research techniques to adjust marketing communication to the changing expectations of foreign customers, however, the first path entails brand building focused more on business customers in international value chains (Business to Business), while the second path usually involves also brand management with regard to foreign target market requirements (Business to Customer). The use of DMC by TC companies may involve various marketing channels, either offline e.g. using sales reps to tailor an offer to foreign buyer expectations, or online e.g. creating a buzz about the brand on social media (Mitręga 2020), and this always requires investing significant resources into marketing (Josephson et al. 2016). Therefore, TC companies may clearly be characterized by different levels of DMC, and advanced DMC helps in their international expansion. Thus, we hypothesize:

H1: DMC is positively linked to the foreign market expansion of TC companies.

The interconnection between DMC and product innovations was already supported in prior research (Bruni and Verona 2009; Weerawardena et al., 2015; Mitręga 2019) due to the positive influence of developed marketing function both at the product development stage, i.e. generating the most promising ideas, and at the product commercialization stage, i.e. boosting sales of new products with modern marketing mix tools. Introducing new products to markets does not guarantee appropriate company market performance because customers appreciate not only what they receive, but also how they receive it (Vargo and Lusch 2004). The concept of complementing value delivered by new products using other marketing instruments has a long tradition in marketing theory, i.e. under the concept of integrated marketing communication (Low 2000; McArthur and Griffin 1997). In the case of TC companies introducing their new products into foreign markets, the mechanism is similar, i.e. DMC supports the NPD process at its various stages. However, taking into consideration the fact that in contrast to their rivals from more developed countries, TC firms often lack technological advantages and usually compete through higher market flexibility and adaptability (Dikova et al. 2016; Peng et al. 2018), logically DMC is of special importance for fast-developing TC companies as it fills their resource gaps. In turn, utilizing DMC to leverage new products may happen along both paths of internationalization because in the B2B context it helps in tailoring products towards some buying companies, and in the B2C context it facilitates adjusting products towards specific foreign market segments. Thus:

H2: DMC is positively linked to the product expansion by TC companies.

The interconnection between DIC and product innovations has support in prior research (Cheng and Chen 2013), however, the innovation capabilities of TC companies operating in a specific institutional context are largely unknown (Dikova et al. 2016).
TC companies tend to focus their innovation capabilities not on radical technological innovations, but rather on organizational flexibility and adaptive introduction of new offers tailored to customers' needs at a lower cost than their competitors from the most developed countries (Dikova et al. 2016; Peng et al. 2018). However, TC companies from Poland and other European TCs have been enlarging their technological competencies in recent decades, which is visible in some of these companies already functioning as challengers and even leaders in high tech industries, e.g. Skype (originating from Estonia), Prezi (Hungary), Avast and Skoda (Czech Republic), ESET, Aeromobil (Slovakia), Dacia (Romania) and CD Projekt, Asseco, Comarch and Solaris (Poland). This is to a large extent due to European TCs being rich in strong tech-focused universities (Kureková 2018). Case studies on post-communist TC manufacturing companies strengthening their positions in international value chains (Siemieniako and Mitręga 2018; Baraldi and Ratajczak-Mrozek 2019; Zadykowicz, et al. 2020) suggest that some TC companies introduce a very effective innovation approach: they specialize in some core manufacturing competencies and also learn about foreign markets, which in time enables them to introduce new products adjusted to the specific features of these markets. Therefore, there is some evidence for the advanced innovation capabilities developed by TC companies being used as leverage for introducing new products, Thus:

H3: DIC is positively linked to the expanding products into foreign markets by TC companies.

Although marketing capabilities may be seen as crucial for the development of TC companies in foreign markets as such capabilities are explicitly oriented at strengthening international recognisability and sales performance, innovation capabilities may also help in international expansion. A recent case study by Baraldi and Ratajczak-Mrozek (2019) illustrates that the technological repositioning of TC firms within the international supply chain is a lengthy process because it takes time for the focal company to progress from the position of supplier to the position of being highly valued for specific, valuable manufacturing competencies. Therefore, developing innovation capabilities may be a way for not only enhancing innovation output, but also for revising and strengthening the brands of TC companies. Again, even though TC companies may not necessarily foster radical

product innovations, they successfully build their innovation capabilities and international recognisability through being fast and flexible with their products, which is appreciated by customers on foreign markets (Dikova et al. 2016; Peng et al. 2018). For example, LPP, one of the biggest clothing companies in the CEE region, has successfully used DIC to build a leading position in the European market by launching almost 500 new clothing collections every year and offering five different brands, i.e. Reserved, House, Cropp, Mohito and Sinsay, corresponding to various segments of the European market. Importantly, LPP's products are offered at very competitive prices due to management of a network of more than 1000 suppliers, mostly in such countries as China, Bangladesh, Turkey and Poland (LPP 2019). Although such spectacular and dynamic international successes by TC companies are rare, especially from Poland and other transforming European countries, it can be assumed that even for SMEs developing their activities in neighbouring European markets, DIC may be very useful in expansion because they allow for faster introduction of product modifications or new products (Fosfuri and Giarratana 2009; Jeng and Pak 2016), which in turn is important for adjusting to fast-changing market requirements and creating a modern company image, which seems to be appreciated by customers in many sectors. Therefore:
H4: DIC is positively linked to the foreign market expansion of TC companies.

While market expansion and product expansion may be perceived as alternative paths for company growth (Mishina et al. 2004), they are also logically related and may facilitate each other. First of all, introducing new products onto a given export market is usually preceded by entering this market with existing products after some minor marketing-mix adaptations. However, there are also "spillover effects" (Balachander and Ghose 2003; Bowden et al. 2017) that should be taken into consideration. Specifically, entering foreign markets may be treated as a proxy for the brand name becoming more recognizable internationally, which is always useful in exploiting up-selling and cross-selling opportunities as the company brand provides a boost for all new company products. For example, CD-Projekt is one of the biggest game developers in the post-communist CEE region, and the company successfully uses this strategy when introducing new games to the global market (Ratalewska 2018). Additionally, systematic market expansion facilitates cash flow, which is needed at various stages of NPD. Last but not least, new markets bring new market opportunities, e.g. a new type of customer, which create synergies for cross-selling that were not available in the previous market setting (Popli et al. 2017). Thus:

H5: Foreign market expansion is positively linked to the product expansion by TC companies.

Although DMC and DIC may both be important paths for company growth in the TC context, it is also important to know how these two interact, specifically in terms of a potential trade-off or the complementary effect. This is especially important if we acknowledge the resource limitations related to TC as the specific research context. Prior research on this interaction is scarce and does not provide a clear solution as to how these capabilities interact, especially in the context of company growth as the business priority. A study by Josephson et al. (2016) recommends ambidexterity as a capability for balancing investments in marketing and R&D for increased financial performance. In the study by Josephson et al. (2016), marketing investments are treated as a proxy to fostering exploration, while investments in R&D are seen as a proxy for fostering exploitation. However, this study was conducted in a specific context, that of big US publicly traded firms, and not in the context of company growth as a dependent variable. In a similar context (i.e. US and Canada), Jeng and Pak (2016) found a positive interaction between company innovation capability and marketing capability as antecedents to the performance of large companies. A study by Ngo and O'Cass (2012) includes a more relevant dependent variable, i.e. innovation-related performance measured among other things by the number of new markets entered and new products introduced. However, the positive interaction between innovation capability and marketing capability is only hypothesised as a positive effect (i.e. because fostering marketing capabilities without innovations does not sustain long-term performance), and the hypothetical synergistic effect was not supported by data from Australian companies. Importantly, when looking at the measures used in the study by Ngo and O'Cass (2012), it seems these measures were not aligned with DCV, i.e. not measured as routines established in company behaviour but rather as effects of using these routines.

As this study focuses explicitly on fostering dynamic capabilities (i.e. DMC and DIC) in the specific context of growth strategies of TC companies, the positive link between innovation capabilities and marketing capabilities does not seem to be justified. Specifically, following the assumption that simultaneous strategic emphasis on innovation and dynamic marketing capabilities, i.e. marketing innovation ambidexterity, require a firm to possess surplus resources (Tan and Wang 2010), it is unlikely that such surplus resources are available in TC companies (Peng et al. 2018). Thus, for a given TC company oriented toward foreign market expansion, there is a need to focus either on innovations or on marketing as

the leverage for this expansion. The development of dynamic capabilities is a costly process because each of these capabilities demand certain investments, e.g. technological R&D investments for increased innovativeness, or customer investments for marketing modernity, therefore it is likely that TC companies fostering growth strategies must choose between innovation and marketing investments to ensure the appropriate magnitude of resources (Fang and Zou, 2009) for their strategic priorities. Indeed, comparing the foreign market strategies of TC companies with those of companies from the most developed countries, Kowalik et al (2020) found that TC companies are more focused on their capabilities strategies, while companies from the most developed countries foster more complex sets of capabilities. Therefore, it is hypothesised:

H6.1: The interaction between DIC and DMC is negatively associated with the product expansion of TC companies.

H6.2: The interaction between DIC and DMC is negatively associated with the foreign market expansion of TC companies.

To verify that the model is built from statistically significant and not spurious relations (Becker, 2005), we have included several control variables into the model. All of these variables were to represent other potential explanatory factors for company growth. First of all, as our model is backed by theories related to company resources, we have included variables reflecting company resourcefulness: Company size, Company age, Export size and Marketing budget. The variables reflecting resourcefulness appeared to explain company performance in many prior studies (e.g. Zahra and Nielsen, 2002; Jeng and Pak, 2016; Mitrega, et al. 2020) because established companies are generally perceived as having more access to external resources, while such resources can be used in various business functions, including marketing and new product development. As our model refers to company growth in export markets, we have checked for export size because this can be treated as a proxy for being more established on the export market, and thus having better access to export market resources (Dhanaraj and Beamish, 2003). As this research does not focus on general dynamic capabilities but rather on dynamic capabilities specific to some business functions from the perspective of TC companies expanding internationally, we have measured the resourcefulness of the company in the marketing area by checking the Marketing budget in the companies studied. Importantly, as some prior studies have

measured dynamic marketing capabilities through marketing spending (Josephson, et al. 2016), we wanted to make sure that our DCV-based conceptualization of DMC is truly different from this narrow, proxy understanding of DMC. Prior research has also emphasized the role of asymmetrical power customer relationships in the way TC companies conduct their export business, i.e. that TC companies need to heavily adjust to the requirements of foreign "big brand" buying companies, because such adjustments impact on their innovativeness and performance (Chang and Gotcher, 2007; Zadykowicz et al. 2020). Therefore, we have included the Customization norm to refer to the level of adjustments the investigated companies have made in their customer relationships. Last but not least, due to cross-sectorial character of this study, we needed to check for industry characteristics, as industry type may determine technological and NPD opportunities, speed-to-market competence, and the pressure on capabilities development (Zahra and Nielsen, 2002). Therefore, we have included two commonly used variables reflecting these issues: Technological Dynamism and Price Competition Intensity (e.g. Jayachandran et al., 2005). In the methods section, we present how each of our control variables was measured.

The hypothesized research model with the control variables is presented in figure 2.

Insert Figure 2 here.

Research method

Data collection

The hypothesized model was tested on cross-sectional survey data collected in 2018 on a sample of 600 randomly selected manufacturing companies based in Poland, one of the biggest TC countries in Europe. In the context of the later global recession related to the Covid-19 pandemic, the year 2018 was a period with a good economic climate in Poland, with GDP dynamics far above the average of Eurozone countries. The Biostat research agency, which specializes in conducting surveys for scientific purposes, was used as an outsourced professional company to facilitate data gathering and sampling based on Bisnode, a comprehensive database of Polish manufacturing companies. We have focused on the manufacturing industry as this sector is of strategic importance for economic growth and includes many companies with advanced innovation capabilities that operate in export

markets. We increased the likelihood of obtaining access to companies functioning in international markets in a few ways. Firstly, we did not sample micro-companies (with 10 employees or less) as such companies are likely to function on a local scale only. Secondly, we included a filter question asking informants if their companies conduct sales to foreign customers. Thirdly, we eliminated 10 companies from the final sample that did not report any foreign sales within the last 5 years. The characteristics of the 590 companies we analysed are presented in table 1.

Insert table 1 here.

The companies surveyed appear to be experienced on the market, i.e. more than 90% have already operated for longer than 10 years, and more than 20% - longer than 30 years. This means that a significant part of the companies studied were firms that started in the communist era, i.e. before 1990. The majority of the companies operated in low-tech industries, which fits well with the assumption that TC companies are usually technologically less advanced than companies from the richest countries. The companies were quite active in export markets, with only around 1/5 of companies having export sales lower than 10% of total sales, and quite frequently operated in industries with customized solutions as a norm in customer relationships (i.e. usually B2B sales). It is worth noting that the survey mostly reached very knowledgeable informants, usually top-level managers, which was very important considering the single-informant approach.

Measurement development and testing

When developing measurements for our study, we mainly used existing literature propositions, adjusting them to the context of our research model when necessary. The items for Dynamic marketing capabilities (DMC) were adapted to our research context from Mitręga (2019) and Weerawardena et al. (2015), who recently adjusted prior conceptualizations of marketing capabilities to the conceptual boundaries of DCV and proposed revised measurements. We have built a short measurement for dynamic innovation capabilities based on prior propositions (Jimenez-Jimenez and Sanz-Valle 2008; Miocevic and Morgan 2018; Ngo and O'Cass 2012). The product expansion and market

expansion measurements were adapted from the scale for product innovation success (Ritter and Gemünden 2003) using the dual logic of growth and a time perspective of the last 5 years. The extensive set of control variables were measured either as latent constructs or as single items, which included Technological Dynamism (Tech_Change), Price Competition Intensity (Competition) (Jayachandran et al., 2005), Company age (Age), Company marketing budget (Budget), Customization norm (Customize), Export market intensity (Export) and Employment size (Employment). All items used in our survey are presented in the appendix.

Before estimating the hypothesized links between our constructs, we first tested the measurement in terms of its reliability and validity. We used the SmartPls 3.0. software, and our results were shown to meet all standard thresholds for reflective constructs (see table 5 in the appendix), except for Cronbach's alpha for Tech_Change, which amounted to 0.67, which is acceptable considering the early research area (Hair et al. 2013; Nunnally et al. 1967). Finally, we checked the heterotrait-monotrait ratio of correlations (HTMT), with the PLS-SEM and all HTMT results for the latest discriminant validity test suggested by Hair Jr et al. (2017) coming in below the suggested (conservative) threshold value of 0.85 (see in the appendix).

Research results

To estimate the hypothesized links between the variables we used partial least squares path modeling, which is also known as PLS-SEM and is an alternative to covariance-based SEM (CB-SEM), and which has experienced exponential growth in terms of its application in highly ranked journals in business research since the release of the freely available SmartPLS 2 software in 2005 (Hair Jr et al. 2013). We decided to use the PLS-SEM technique instead of other techniques, e.g. regression or CB-SEM, for two main reasons. Firstly, our research model contains indirect effects, i.e. between Marketing Caps and Product Expansion partially through Market expansion, and such effects cannot be modelled using traditional regression techniques. Secondly, as we used survey data in our analysis, the distribution of our data was to a large extent non-normal, which suggested PLS-SEM as this allows for the use of this kind of data, while other techniques do not (Hair et al. 2011).

The hypothesized links between the variables were estimated using the SmartPLS 3.0 software (Ringle et al. 2018). Following Hair et al. (2013), bootstrapping was used to assess

the significance of path coefficients. The number of bootstrap samples was 5,000, with Bias-Corrected and Accelerated (BCa) Bootstrap as the most stable estimation method. Table 2 presents the results of the estimation of the structural paths, including three structural models: a baseline model (Hypotheses 1-5), a moderated model (Hypotheses 1-7), and a controlled model (Hypotheses 1-5 and control variables). Additionally, to visualize the results, we have presented the PLS algorithm results in the appendix.

All hypothesized paths in the baseline model are significant at a conservative level ($p<0.05$), thus providing support for hypotheses 1-5. The estimation results provide only partial support for the hypothesized moderation effects related to the interaction between the focal dynamic capabilities: DIC and DMC (hypothesis 6). While the negative interaction effect between DIC and DMC with regard to product expansion is supported ($p<0.05$), there is no support for this interaction concerning market expansion ($p>0.1$). Additionally, among the control variables, there is a significant positive influence of Export market intensity (Export) on market expansion ($p<0.05$), and a marginally significant positive influence of Export intensity on product expansion ($p<0.1$). One should also note the marginally significant positive influence of Technological Dynamism (Tech_Change) on market expansion ($p<0.1$). Altogether, considering the marginal or insignificant impact of an extensive set of control variables, the survey data provides clear support for the main research model, excepting only partial support for the hypothesized interaction effect.

Insert Table 2 here

Research discussion and conclusions

Research discussion

The empirical research on a sample of 590 Polish manufacturing companies provides support for the hypothesized research model based on 6 hypotheses and originating in DCV and VC as the two theoretical frameworks. Among the 6 detailed hypotheses, only one hypothesis received only partial support: hypothesis 6.1 was supported ($p<0.05$ in the PLS-SEM results) while hypothesis 6.2 was not ($p>0.05$). Notably, introducing 8 control variables did not diminish the significance of the main research paths, therefore providing additional evidence for the meaningfulness of the hypothesized research paths.

The research results suggest that DMC might indeed be treated as a versatile resource, i.e. allowing for multiple use by manufacturing companies, in entering foreign markets and introducing new products (H1 and H2). Prior research provided a fragmented picture of DMC as a factor influencing company competitiveness, i.e. illustrating its impact on general company performance (Fang and Zou 2009), company innovations (Konwar et al. 2017; Mitręga 2019), and the performance of own affiliates abroad (Konwar et al. 2017), while the multiple function of DMC (i.e. the dual influence of DMC on company innovations and internationalization) was only tested in a study by Weerawardena et al. (2015). However, the study by Weerawardena et al. (2015) was among early internationalizing firms from Australia and the United States. Such firms, also known as born globals or international new ventures (INVs), remain a very different research context to manufacturing firms from post-communist Poland. Our diversified sample consisted of mostly mature Polish companies of various sizes (90% had already functioned for longer than 10 years), which extends prior research by suggesting that such DMCs might be more universal than expected. Thus, our study supports the idea that fungible but universal resources might be more important than unique resources in fostering company growth (compare Barney, 1991; Nason and Wiklund 2018).

Our study corresponds with and extends prior research on the role of DIC in company strategies by providing evidence that in the context of TC manufacturing companies, DIC may be used as leverage for both expanding in foreign markets (H4) and introducing new products (H3). Prior research into DIC was conducted in the context of companies from highly developed economies, focusing either on antecedents to DIC in terms of company leadership (Lee and Kelley 2008; Lichtenthaler and Muethel 2012), or on the consequences of DIC in terms of radical innovativeness (Cheng and Chen 2013). The most recent study by Wang et al. (2019) suggests that in the case of a company functioning in a high-tech global industry, DIC helps not only in introducing innovative products, but also in adjusting the company to an intensively volatile competitive environment. This study extends prior research by providing evidence that the positive role of DIC in company innovations might be more universal as it plays an important role in product innovations by Polish TC manufacturers in various industries. Even more importantly, prior research is extended by showcasing the positive impact of DIC on the international market expansion of TC manufacturers from various specific industries. Although the innovativeness of TC

companies is not usually radical in a technological sense, TC companies can be very successful by adjusting their products to meet foreign market requirements at competitive prices (Peng et al., 2018). This study extends this claim by showing that cross-departmental orientation toward product innovations might be a universal instrument for use in entering competitive foreign markets. Correspondingly, the international expansion of TC companies was found in this research to be positively linked with the effective introduction of new products (H5), therefore, international growth seems to provide a new strategic space for TC companies to master their competitiveness, e.g. by introducing a broad array of products to the same foreign customers once they are satisfied with the original offer.

Our study provides partial evidence for the negative interaction between innovation and marketing capabilities as factors that individually both contribute to the international growth of TC manufacturing companies. Prior studies on the topic do not picture clearly whether and how these two types of dynamic capabilities interact within companies, and the studies were generally conducted in the context of most developed economies (Ngo and O'Cass, 2012; Josephson et al. 2016; Jeng and Pak, 2016). This study, conducted in the context of TC, implies that developing strategic ambidexterity (Tan and Wang 2010; Josephson et al. 2016), that is simultaneous fostering of dynamic capabilities in both innovations and marketing, might be not the best solution as there seems to be trade-off between these two strategic directions. In comparison to companies from the most developed countries, manufacturers from TC countries are clearly resource-restrained in their strategic choices (Peng et al. 2018; Chidlow et al, in press), and they may lack appropriate management skills to master their marketing and innovation resources at the same time. Indeed, prior studies on the strategies of Polish manufacturing companies within international supply chains suggest rather a gradual, subsequent development of marketing and innovation resources, which reflects long-term learning on how to cooperate with demanding foreign customers (Siemieniako and Mitręga 2018; Baraldi and Ratajczak-Mrozek, 2019; Ciszewska-Mlinarič, et al. 2020) rather than a diversified, ambidextrous approach. However, the negative interaction effect between DIC and DMC was found to be significant only in the case of the impact on product expansion (H 6.1), while in the case of the impact on market expansion it was found to be insignificant (H 6.2). Speculating about the reasons for this insignificant result, we propose that although the trade-off between these two types of capabilities may exist during the internationalization of TC companies, it

may only become significant after some time functioning on foreign markets, e.g. when TC companies start to compete more openly with foreign companies on their home markets, which entails more sophisticated use of resources. Such more advanced internationalization usually demands introducing new products that challenge established brand hierarchies, and at such a turning point, companies must decide if they should invest in further market adaptations (i.e. further development of marketing resources) or in introducing new technologically advanced products (i.e. further development of innovation resources). However, as our company data does not comprise information on the time of functioning on foreign markets, this reasoning must be treated with caution and further research to support the claim is needed.

Research contribution

The contribution made by this research refers to both conceptual and empirical aspects. Conceptually, this is one of the first studies to have used the resource versatility concept (Nason and Wiklund 2018) combined with the dynamic capabilities view (Teece et al. 1997; Eisenhardt and Martin 2000) to conceptualize marketing capabilities and innovation capabilities as versatile resources required for resource-restrained companies to grow, specifically in the form of expanding by entering foreign markets and introducing new products. The international expansion of post-communist TC companies in Poland is proposed as a specific research context that aligns well with the conceptual model. Empirically, this research provides relatively strong support, based on PLS modelling of data from a survey of 590 Polish manufacturing companies, for dynamic marketing capabilities and dynamic innovation capabilities acting as leverages for dual strategic growth, i.e. towards both market and product expansion. The baseline hypothesized model is backed by empirical data after the introduction of several control variables into the path analysis. The quantitative analysis also provides partial support for the trade-off between DMC and DIC.

Research conclusions

The study portrays Polish manufacturing companies' versatile resources as growing in the wider context of TC companies and their growth strategies. Both capabilities, that is

DMC and DIC, meet the resource versatility criterion, i.e. they may be reused in various strategic areas (Nason and Wiklund 2018), which seems to be more important than traditional VRIN criteria (Barney, 1991; Nason and Wiklund 2018) in evaluating the company resources required for company growth. This study follows and extends the suggestion by Nason and Wiklund (2018) that dynamic capabilities (Teece et al. 1997) may be a theory that is well aligned with the concept of versatile resources, especially in the context of companies from transforming economies.

Given the large study sample, the structural paths that received empirical support confirm the criticality of investments in developing dynamic capabilities in the investigated research context. For Central and Eastern Europe (CEE) companies in particular, the results should encourage firms to find opportunities for investing in dynamic capabilities, despite the fact that the related benefits are indirect and longer-term as compared to investments into operational activities such as marketing campaigns and minor product modifications. In this regard, the study provides an important extension of dynamic capabilities research in the particular context of CEE companies, which has largely been neglected in prior international business studies despite the huge development potential and visible increase in international operations (Caputo et al. 2016; Dikova et al. 2016; Kowalik et al. 2020). Corresponding with Fainshmidt et al. (2016), who depicted dynamic capabilities as more relevant for developing countries, this study nurtures this claim in the context of international expansion of post-communist CEE companies. As companies from TC such as CEE cannot effectively compete internationally with companies from the most developed countries and their strategic resources, i.e. established brands and technologically advanced products, they need to employ dynamic capabilities, i.e. routines to creatively combine and renew available resources, vis-à-vis the requirements of the international market. The particular context of TC companies highlights resource scarcity and thus emphasizes the importance of decision-making on how to prioritize investments in developing dynamic capabilities. In this regard, the results show that market expansion seems to drive product expansion. This implies that for a single TC company, it is plausible to set out an international growth trajectory combined with market expansion, and does not necessitate drastic changes in innovation capabilities, e.g. high R&D investments.

This study suggests that there is a sequence beginning first with market expansion and progressing later to product expansion in foreign markets, as in the first phases of

functioning on export markets, TC companies are usually being orchestrated by “big brand” manufacturers. However, they also use this period to learn and improve their own capabilities, which help them in positioning their own brands later, with some becoming international leaders, especially in Europe (Ciszewska-Mlinarič et al., 2020). This study extends prior research in this area which was only in the form of case studies related mostly to the furniture industry, while current research provides quantitative evidence that these mechanisms exist in various manufacturing industries. Additionally, while prior studies usually analysed international strategies in CEE companies from the perspective of their networking capabilities (Siemieniako & Mitręga, 2018; Baraldi & and Ratajczak-Mrozek, 2019), this research focuses rather on organic growth strategies related to marketing and innovativeness.

Altogether, the findings of the study may be interpreted in terms of linking the activation of DMC and DIC with the phase of international expansion. It seems that developing DMC is associated with the early stages of international expansion in making an entry and occupying a position on international markets. On the other hand, DIC are associated with a more mature phase of international expansion. Thus, the distinction between DMC and DIC resemble the Schumpeterian distinction between fostering market efficiencies and fostering innovations (Schumpeter 1934; Schumpeter 1942). DMC seems to be an adaptive mean for tuning marketing activities, which in this sense comprise a rather supportive function aimed at increased efficiency and growth by scaling up the current business. Whereas DIC manifests the presence of the organization on given markets, and thus manifests effectiveness and reconfigurations in a more strategic dimension (see also Ambrosini et al. 2009). In this regard, the negative interaction between the constructs of DMC and DIC also hints at resource wisdom: orientation towards efficiency and effectiveness are largely mutually exclusive in the context of resource-intensive international expansion.

Managerial recommendations

This research translates into certain recommendations for managers of Polish manufacturing companies, and to some extent applies to wide TC context. Firstly, this study suggests that these companies may not only internationalize, which is to a large extent unavoidable as they function in a globalized economy, but they may also develop versatile resources which can boost their expansion into foreign markets and enable them to further

improve their international position, e.g. by introducing new products. Therefore, this study suggests that managers of manufacturing companies from TC should not focus only on adjusting within supply chains and building strong relationships with key accounts (Siemieniako & Mitrega, 2018; Mitręga, et al. 2019; Baraldi & and Ratajczak-Mrozek, 2019), but they should leverage their own versatile resources to gradually strengthen their own brands on international markets. In this respect, our study corresponds with a study by Mesquita, et al. (2008), who found that smaller suppliers may improve their supply chain performance partially through improvements dedicated to specific relationships and partially from redeployable performance. It may be argued that in this research, the redeployable or learning mechanism parallels the link between market expansion and product expansion because market knowledge built through market expansion (and based on marketing capabilities) helps in further introducing new products on foreign markets. Secondly, following the negative interaction effect between DMC and DIC, managers should take into consideration that investing in marketing and R&D at the same time maybe not the best strategy if they want to expand in international markets. The much stronger influence of DMC on market expansion than DIC, combined with the positive impact of market expansion on product expansion, suggest that companies should rather develop capabilities in sequence, starting first with capabilities in marketing and then moving on to capabilities in the innovation area. Considering the structure and size of our sample and the control variables that we analysed, this mechanism seems to be universal for Polish manufacturing companies from various industries, irrespective of their size and age.

Research limitations

The methods that we applied in the empirical research have some disadvantages. First of all, we have used only perceptual measurements for the dependent variables, related to product and market growth. Although perceptual measurements seem to be strongly correlated with objective measurements (Wall, et al. 2004; Ketokivi & Schroader, 2004), further research should validate our research model using data from financial reports, which is possible especially with regard to some medium-sized and large companies. However, such an approach would require focusing on a given manufacturing industry instead of a cross-sectorial sample, as some average reference points for the performance

variable measurement would be needed, e.g. average growth rate. Secondly, we have used only the single-informant method, and further research may investigate the perspectives of both marketing managers and R&D managers in manufacturing companies. Last but not least, our PLS-SEM research approach allowed for only a limited understanding of what constitutes DMC and DIC of TC companies in international markets, and a more detailed understanding of the micro-mechanisms lying behind the causal path we hypothesized is needed. Specifically, as our research provides only partial evidence for the trade-off between DMC and DIC in expansion strategies, some further investigation of the relationships between these capabilities is recommended. Considering the potential sequence of first market expansion and then product expansion, such an investigation would ideally explore this sequence using a longitudinal approach.

Our research is limited in terms of its scope, i.e. some important variables were not taken into consideration in our research model. Although the literature on international strategies of TC companies offers 3 main models for international growth: organic, acquisitive and network-based (Peng et al., 2018; Chidlow et al., In press), this research focuses only on organic, capabilities-based strategies. This decision was due to limited knowledge on the organic international growth of TC companies, and the fact that prior research was focused mainly on network-based strategies (e.g. Baraldi and Ratajczak-Mrozek 2019; Ciszewska-Mlinarič et al. 2020; Trąpczyński and Gorynia, 2017). However, further research should go beyond this limitation by studying the role of innovation and marketing capabilities in relation to other growth strategies. Our research follows the resource versatility approach (Nason & Wiklund, 2018), which seems highly relevant for TC growth strategies, but also has some limitations. Specifically, this research does not test how the growth of the companies studied, in terms of introducing new products and entering new foreign markets, correlates with their financial performance. Knowing that the manufacturing companies that participated in our survey were well-established companies (i.e. 92.2% of the companies had functioned for 10 years or longer), we can only assume that their international expansion was profitable, as functioning without profits would otherwise damage their liquidity. Similarly, we did not test how the applied capabilities we focused on interplay with companies' agility, which has frequently been studied in the context of manufacturing business and internationalization (Sharifi and Zhang 1999; Pereira et al. 2020;

Christofi, et al. 2021). Thus, research may verify if the use of versatile resources by TC companies expanding internationally does not come at the cost of low financial performance and decreased agility on export markets. Further research may also validate the relative importance of DIC and DMC in export activities applied in developed vs. developing foreign markets (Trąpczyński, 2018; Trąpczyński et al. 2020)

We position our research as explanatory in terms of the growth strategies of companies in TC context, however the empirical test that we provided for the hypothesized model is limited to data from Polish manufacturing companies, therefore generalization is limited and further research is needed. Although there are socio-economic features specific to the Polish economy relative to the whole cluster of transforming countries, including especially some big Asian economies, the Polish economy may at least be treated as representative of transforming post-communist Europe as there are many commonalities for the whole region (House and Leadership, 2004; Roszko-Wójtowicz and Grzelak, 2020; Mitręga et al. 2020; Virglerova et al. 2020). Further research may validate if the dynamic capabilities investigated in this research work in a similar way for companies from other transforming countries geopolitically distant from Poland. Last but not least, as we have introduced a positivistic, quantitative approach towards versatile capabilities, the results leave us without an in-depth understanding of the specific micro-foundations of such capabilities. Further research can shed light on how such capabilities are created, so researchers are encouraged to apply various qualitative and quantitative approaches to study the antecedents of versatile capabilities.

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Figure 1. General research model and theoretical underpinnings

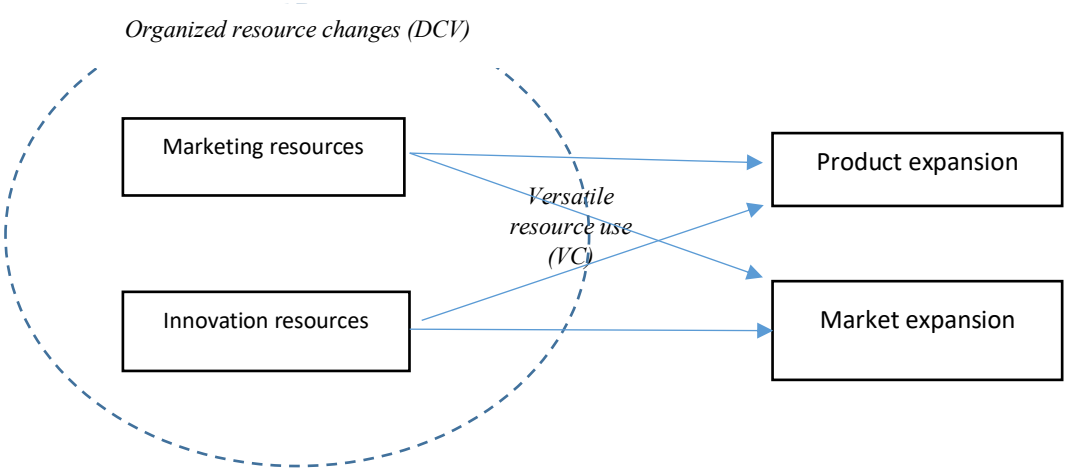

Figure 2. The research model with the interaction effect and control variables

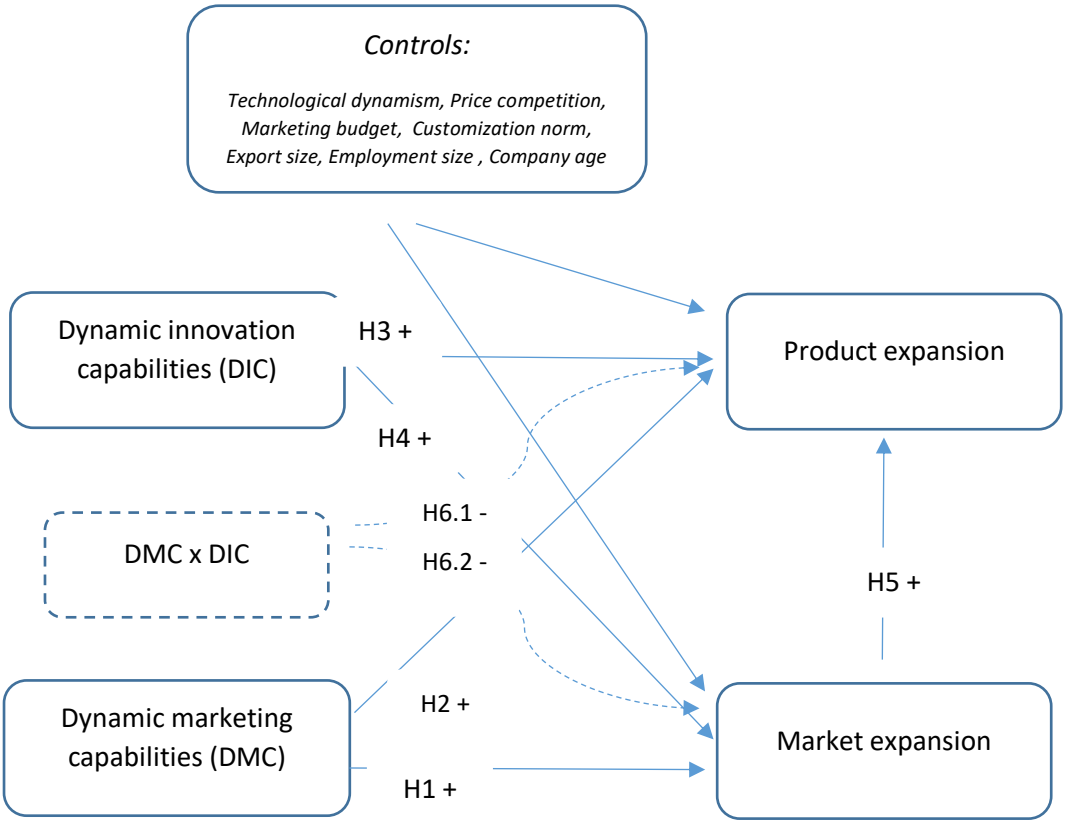

Table 1. Manufacturing companies sample descriptive statistics (n=590)

Descriptive variable	Categories	Percentage
Number of employees	10 to 49 employees	62.2
	50 -249	25.1
	250 or more	12.7
Industry type - technology	High-tech industry	23.1
	Low-tech industry	76.9
Brand building	Own brand building with regard to end customers	75.3
	Building other brands in relation to end customers	24.7
Company age	1-2 years	0.2
	Longer than 2 and shorter than 5 years	1.5
	5-10 years	6.1
	Longer than 10 and shorter than 30 years	69.8
	30 years or longer	22.4
Export sales intensity	Export 1-10%	20.7
	Export 11-25%	34.9
	Export 26-50%	22.2
	Export 51-75%	14.2
	Export 76%-99%	6.4
	Only foreign customer sales	1.5
Customization extent	Only standardization	12.0
	Usually standardized	12.9
	50% standardization / 50% customization	19.3
	Usually customized	19.0
	Only customized products	36.8
Informants knowledge about key account relationships	Average knowledge	1.7
	Good knowledge	38.2
	Very good knowledge	60.2
Informants positions	Owner or management board	45.5
	Marketing manager	10.7
	Sales manager	7.5
	Operation manager	7.0
	Marketing specialist	7.8
	Financial or economic specialist	10.7
	Other office position	10.8

Table 2. PLS-SEM Path coefficients (n=590)

	Baseline	Moderated model	Controlled model
Market expansion -> Product expansion	0.24* (0.05)	0.24* (0.05)	0.22* (0.04)
Marketing Caps -> Market expansion	0.46* (0.27)	0.46* (0.27)	0.43* (0.22)
Marketing Caps -> Product expansion	0.17* (0.03)	0.18* (0.03)	0.18* (0.03)
Product innovation caps -> Market expansion	0.21* (0.06)	0.21* (0.06)	0.19* (0.05)
Product innovation caps -> Product expansion	0.21* (0.05)	0.20* (0.05)	0.21* (0.05)
P. innov. Caps X Marketing Caps - > market expansion		0.03 (0.00)	
P. innov. Caps X Marketing Caps - > product expansion		-0.10* (0.01)	
Age -> Market expansion			-0.00 (0.00)
Age -> Product expansion			0.05 (0.00)
Budget -> Market expansion			0.01 (0.00)
Budget -> Product expansion			-0.04 (0.00)
Competition -> Market expansion			0.01 (0.00)
Competition -> Product expansion			0.02 (0.00)
Customize -> Market expansion			-0.02 (0.00)
Customize -> Product expansion			0.06 (0.00)
Export -> Market expansion			0.09* (0.01)
Export -> Product expansion			0.07^ (0.01)
TechChange -> Market expansion			0.07^ (0.01)
TechChange -> Product expansion			0.04 (0.00)
Employment -> Market expansion			0.06 (0.00)
Employment -> Product expansion			0.05 (0.00)
R^2 (PRODUCT EXPANSION)	0.21	0.22	0.23
R^2 (MARKET EXPANSION)	0.27	0.27	0.30
Q^2 (PRODUCT EXPANSION)	0.14	0.14	0.14
Q^2 (MARKET EXPANSION)	0.17	0.17	0.18

Note: * Paths statistically significant at the level of $p<0.05$; ^ Paths statistically significant at the level of $p<0.10$. Numbers in brackets refer to f^2 values.