The impact of company size on the importance of internal Corporate Entrepreneurship driversin Germany: A case study

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Abstract— **Introduction:**The development of an innovation-promoting environment and the enhancement of entrepreneurial spirit in existing companies is often referred to the term Corporate Entrepreneurship (CE).While researchers have made valuable contributions to the academic discourse on CE and on the importance of its internal antecedents in general, the impact of company size on the CE factors has only been investigated to a limited extent. **Aim:** This paper aims to identify the effects of company size on the implementation of CE and its determinants in established companies. **Materials & methods:**A case study with twelve semi-structured interviews is conducted in eight companies of different sizes. The data analysis is based on the methodology of qualitative content analysis according to Philipp Mayring.**Results:**All case companies have realized CE's importance and are striving for the successful promotion of innovation. Nevertheless, the implementation of CE across all organizations is rather low. Besides the management roles, all other nine Corporate Entrepreneurship determinants identified in the literature review are also relevant in practice. Innovations are important for all company sizes - for SMEs to enter the market and for larger organizations to survive in the market. **Conclusion:**This paper advances the current CE research by identifying relevant antecedents and the current implementation of CE by company size and makes an important contribution to the enhancement of academic research concerning the successful implementation of CE in established companies. Beyond the academic relevance, it provides managers an overview of the most important levers of CE depending on the company size and helps to critically review the provided recommendations for action in research concerning its applicability for SMEs.

Keywords— **Corporate Entrepreneurship, Innovation, Company Size**

1.INTRODUCTION

In recent decades, the history of economics has demonstrated consistently that organizations must be able to react fast and agile to market changes and continuously reinvent themselves. To achieve this adaptability, companies must promote creativity and improve their innovative capabilities (Lee &Pati, 2017). The development of an innovation-promoting environment and the enhancement of entrepreneurial spirit in existing companies is often referred to the term Corporate Entrepreneurship (CE) (Kuratko et al., 2014; McGrath, 2001; Zahra, 1996). CE comprises various entrepreneurial efforts including innovation, new ventures and strategic renewal within established organizations (Zahra, 1996). In accordance with the increasing importance of innovations in business environment the interest in investigating CE has been growing in the last decades (Corbett et al., 2013; Dess et al., 2003; Stevenson &Jarillo, 1990). While researchers have made valuable contributions to the academic discourse on CE and on the importance of its internal antecedents in general (Guth & Ginsberg, 1990; Hornsby et al., 2002; Zahra &Covin, 1995), the impact of company size on the CE factors has only been investigated to a limited extent.

Based on existing CE research, the paper seeks to respond to this identified research gap with a multi-case study approach in German economy. Thus, this study aims to identify the effects of company size on the implementation of CE and its determinants in established companies.To investigate this subject, a case study with twelve semi-structured interviews are conducted in eight companies of different sizes. By doing so, this paper contributes to academic discourse on CE and provides several valuable implications for the successful implementation of CE in practice. The CE antecedents that are identified as relevant in this study provide scholars and managers an overview of the most important levers of CE for different company sizes.

The paper is structured as follows. First, the theoretical framework of the CE concept and its determinants is presented in a literature review. In a second step, the research methodology including the expert sampling is described. Subsequently, the findings are presented and discussed. The final section outlines the contribution of the study, provides some implications and identifies possible directions for further research.

2. Literature Review

The idea of corporate entrepreneurship has its roots in the mid-1970s. Peterson and Berger (1971) developed it as a strategy and a management style that supported existing companies to adjust their businesses to changing market dynamics. Later, in the course of the studies by Burgelman (1983), Miller (1983) and Pinchot (1985), Corporate Entrepreneurship was considered as an independent research subject (Christensen, 2004). Different terms and approaches have been introduced in order to describe the promotion of entrepreneurship within established firms, such as Corporate Venturing (Burgelman, 1983), Intrapreneurship

(Pinchot 1985), Corporate Entrepreneurship (Guth & Ginsberg, 1990) and Strategic Entrepreneurship (Hitt et al., 2011). While each of these approaches has its individual characteristics and is worthy of being discussed as a separate approach in academic research, because of its multidimensionality, CE is able to combine them (Christensen, 2005; Russell, 1999).

Scholars and practitioners have defined CE and innovation in several ways (Amore et al., 2013; Bai et al., 2016; Huse et al., 2005; Sharma & Chrisman, 2007; Tian & Wang, 2014; Zahra, 1996). In general, CE involves the implementation and promotion of entrepreneurial behaviour within established companies (Echols & Neck, 1998). It is based on the basic principles of management and includes a behavioural pattern that avoids bureaucracy and stimulates innovation (Barringer &Bluedorn, 1999). It fosters innovation within companies by acquiring and combining resources to support the successful development and market launch of new products (Guth & Ginsberg, 1990; Kuratko et al., 1990; Sathe, 1989; Stopford & Baden-Fuller, 1994). In summary, CE implies the establishment of new organizations within existing enterprises and has an impact on the innovation and strategy process of these corporations.

In the recent decades, the concept of CE has been investigated by various researches (Amore et al., 2013; Bai et al., 2016; Huse et al., 2005; Sharma and Chrisman, 2007; Tian and Wang, 2014). These studies identify an extensive number of potential influencing factors and theoretical frameworks of CE (Hornsby et al., 2002; Marvel et al., 2007). Even though researchers have identified numerous innovation-promoting factors, some CE antecedents have been consistent over the years (Kuratko et al., 1990). Based on the findings of a conductedsystematic literature review factors such as strategy, organizational structure, autonomy, leadership, management roles, top management support, risk-taking, culture, resources and rewards should be considered as important CE antecedents and contribute to its successful implementation in established organizations (Burger & Blažková, 2020; Fry, 1987; Ireland et al., 2009; Hisrich& Peters, 1986; Sykes & Block, 1989). We conducted the keyword-based literature analysis using the database Business Source Premier in June 2019 (Burger & Blažková, 2020) to identify all relevant papers from leading peer-reviewed management journals concerning CE and its determinants. In our systematic literature review (Burger &Blažková, 2020), 129 relevant articles wereanalysed in-depth and, as indicated by our results, the organizational structure, strategy and the support of entrepreneurial behaviour by top management are the three most important drivers of CE in the academic discourse. Because one factor alone cannot ensure the successful implementation of CE, the right combination of all identified CE antecedents is required (Hornsby et al., 2002).

3. Research method and data collection

Since the investigation of relevant CE-antecedents for the respective company sizes and the provision of comparisons between capital market oriented companies and SMEs requires the experiences and estimations of several experts with different background of different companies in different industries, this study use a multiple case approach (Eriksson &Kovalainen, 2008). According to Eriksson and Kovalainen (2008), the selection of case companies has toconsider different perspectives of various cases regarding the industry and the size of the company. In this context, eight case enterprises of the most important industrial sectors of the German economy are chosen and subdivided into two different sub-groups. The first subgroup consists of small and medium enterprises (SMEs) that are family-owned and -managed. The other group represents large and capital market-listed companies. For this purpose, it was paid attention that all investigated companies are established in their market and face the challenges of innovation promotion. The twelve experts interviewed from different industries, companies, departments and hierarchical levels are selected based on a judgment sampling strategy (Marshall, 1996; Miles and Huberman, 1994). All in-depth interviews took place in Germany during October 2019 and January 2020 with a duration between 35 and 65 minutes. The interviews were conducted according to the semi-structured interview approach, which allows the interviewer to conduct a formal interview based on a previously defined interview guide (Bernard, 2006; Cohen & Crabtree, 2006; Stuckey, 2013). For this reason, an interview guide was developed based on the findings of the academic literature and validated in the course of pre-tests. The interviews wererecorded and afterwards transcribed. According to Hirsjärvi and Hurme (2004), the recording and transcription process is necessary to take care regarding the validity of the interview material. The analysis of the collected data is based on the methodology of qualitative content analysis according to Mayring (2015).

4. Results and Discussion

Although the degree of implementation of CE differentiates between the individual case companies, the expert interviews indicate some similarities and divergences between the two sub-groups. All companies have realized CE's importance and are striving for the successful promotion of innovation. Most of them have also committed themselves to this topic and have integrated it into their corporate values. Nevertheless, the concrete implementation of CE across all organizations is rather low. Most experts suggest that CE is only partially implemented in their company. A few case companies avoid the problems of internal innovation promotion and either acquire existing start-ups in order to integrate them into their organizational structures or invest in external start-ups and incubators to implement the CE idea more efficiently.

Regarding the individual CE antecedents, nine of the ten in the literaturealready identified CE determinants are also relevant for the case companies. The experts mentioned the factors strategy, organizational structure, autonomy, leadership, top management support, risk-taking, culture, resources and rewards as important antecedents or obstacle of CE, which leads to the conclusion that these drivers are also relevant in practice.Only the factor management roles was not identified by any of the experts as relevant for the success of CE. Most companies are already well positioned in terms of organization and autonomy. The experts consider the organizational structure and processes as the basis of CE and both have already been adapted by the companies in recent years. Therefore, the enterprises already have flexible structures and short decision-making processes. In addition, the companies already have employees with a high level of knowledge and methodological skills. Even though the organizations have already created an awareness of the necessity of CE in the staff, the highest potential for improvement exists in terms of the corporate culture including all aspects such as the mindset of the employees, trust, persistence and failure culture. Enterprises must create a common desire and motivation across the entire organization to promote innovation and to act entrepreneurially. Moreover, they have tochange their focus from a financially short-term perspective towards a higher willingness to take risks. In addition, the experts assume a need of rigorous and ongoing support of the management that enables and supports the adjustment of all other antecedents.

In the context of the current implementation of CE depending on company size, the following conclusions can be derived on basis of the expert interviews. The larger the company, the more advanced the implementation of CE. In most cases the larger companies already have developed at least a concept and individual aspects of CE, such as independent business units or first adjustments of structures, are already implemented. The large companies are currently mostly faced with continuous and stringent execution, which is often hindered by the staff. The smaller companies are currently still struggling to create the right foundations for CE, such as processes and organization. However, both the large organizations and SMEs fail mainly because of the mindset of the employees.

The advantage of large companies in promoting innovation is that they have significantly more resources to efficiently identify and realize market opportunities as well as to better compensate failures. On the one hand, they have more expert knowledge and methodological skills due to the large number of employees. As a result, the innovation process is much more structured and target-oriented once it has been approved. Since large companies have several innovation projects, they benefit from the experience of comparable projects and can realize more synergies in the implementation of CE than smaller organizations. On the other hand, large companies can compensate the impact if individual employees that concentrate exclusively on the topic of innovation.In addition to employees, large companies have much stronger financial backbone and more diversified revenue drivers in terms of products and markets than small companies. Therefore, they are able to compensate market fluctuations and project failures in a better way and do not have to stop innovation projects. Consequently, with a CE-oriented culture and corporate steering, they should be able to take more risks than small companies. The advantage of the higher resource base of large companies is consistent with the weaknesses of SMEs in the context of CE. In SMEs, individual persons are usually responsible for several areas and therefore do not have deep expert-knowledge. Therefore, they do not have enough resources and knowledge to set up CE professionally and must acquire these capabilities externally. In addition, they often have less experienced employees and focus on too many opportunities at the same time. The experts agree that SMEs are much more dependent on the knowledge and skills of the managing director than large companies. This also applies to the attitude of the top management regarding CE. The awareness and understanding of digitalization and innovation is often lacking in SMEs if the managing director is not interested and strongly supports it.

In contrast, the advantage of SMEs are quick decisions, delegating tasks in an efficient way and enabling people to implement concepts. Everything is less complicated, less bureaucratic and work faster in SMEs because of short decision processes and personal contact between the employees. Moreover, the culture and mindset are better for supporting entrepreneurial behavior since employees are enthusiastic about the company and identify themselves with its activities. The advantages of SMEs are also reflected in the expert statements concerning the weaknesses of large companies in promoting innovation. Large companies have old and rigid structures with numerous interfaces and hierarchy levels that often provide limited freedom for entrepreneurial activities in the individual markets. Moreover, they have several decision committees that must approve an innovation before it will be implemented and thus prolong the decision processes. Therefore, even with experienced people the innovation projects loose dynamics and the large companies miss identified market opportunities. In addition, changes take a long time for large companies and are difficult to execute accordingly to dynamic market developments. Another disadvantage of large companies is the short-term orientation based on the quarterly reporting pressure of analysts and shareholder. Although large companies, as described above, can take more risks than SMEs because of their large resource basis, they are also constrained by a short-term and return-oriented corporate management according to the shareholder value approach.

In summary, some rules can be derived from the expert interviews. The smaller the company, the more freedom for employees, the faster decision-making processes in order to realize innovations and the better is the culture to implement CE. Nevertheless, smaller companies face a higher risk of lacking in resources and a low degree of professionalism. In contrast, the bigger the company, the more resources and knowledge are available, but the more structures, defined processes and clear responsibilities are required, which prevent innovation, agility and creativity in order to find new products beyond existing core business. If SMEs become larger, the advantages and disadvantages are becoming more and more similar to those of large companies. The perfect company size for successful promotion of innovation could be large SMEs that have enough resources to compensate innovation risks but are still able to act fast enough to realize market opportunities. This hypothesis is supported by the fact that SMEs in Germany are empirically proven to develop most innovations.

Regardless of the company size, the success of CE mainly depends on the shareholder structure, finance structure and the corporate culture with all its components. Overall, innovations are important for all company sizes - for SMEs to enter the market and for larger organizations to survive in the market. All company sizes have advantages and disadvantages, so the big ones should learn from the small ones and the small ones should learn from the big ones.

5. Conclusion

The increasing importance of creativity and innovations for organizations in dynamic and complex markets leads to a strong research focus on CE in last decades (Corbett et al., 2013; Dess et al., 2003; Stevenson &Jarillo, 1990). Despite intensive research efforts on CE's importance for companies' growth and profitability (Guth & Ginsberg, 1990; Zahra &Covin, 1995), the impact of company size on the CE determinants is still poorly explored. Therefore, this paper focuses on CE‘s implementation and the importance of the individual CE antecedents for SMEs and large organizations in practice. For this purpose, a multiple case study is conducted across the most important German industries. By comparing the CE implementation of both company dimensions and identifying the strengths and weaknesses of each size, this paper makes an important contribution to current CE research and can provide a guideline for managers to adapt existing findings on CE in practice.

The expert interviews show that all companies have realized CE's importance and are striving for the successful promotion of innovation, nevertheless the implementation of CE across all organizations is rather low. Furthermore, besides the management roles, all other CE factors identified in the literature review are also relevant in practice. The experts consider an increasing importance of the antecedents autonomy, risk-taking and the corporate culture, which is also consistent with growing interest in investigation of Entrepreneurial Orientation concept (Wiklund&Sheperd 2005; Rauch et al. 2009). Concerning the successful implementation of CE, the main challenge forcompanies of both sizes is the mindset of their employees. Even though the enterprise size has only been considered to a limited extent in the literature, this empirical study indicates certain differences in terms of the importance of the CE antecedents. The smaller the company, the more important the resources for the success of CE. SMEs do not have enough resources and deep expert knowledge to set up CE professionally and have to acquire these capabilities externally. In addition, for this company size financial resources play a crucial role, since they enable organizations to compensate failures and continue to take entrepreneurial risk. However, the smaller the company, the more freedom for employees, the faster decision-making processes in order to realize innovations and the better is the culture to implement CE. In contrast, the larger the company, the more advanced the implementation of CE. Moreover, the bigger the company, the more resources and knowledge are available, but the more structures, defined processes and clear responsibilities are required, which prevent innovation, agility and creativity in order to find new products beyond existing core business. If SMEs become larger, the advantages and disadvantages are becoming more and more like those of large companies. Overall, innovations are important for all company sizes.

This paper advanced the current CE research by identifying relevant antecedents and the current implementation of CE per company size. It was analyzed which of these determinants are of increasing importance for the future and in which CE drivers companies are currently well positioned and where they consider urgent improvement potential for the future. Therefore, this paper makes an important contribution to the enhancement of academic research concerning the successful implementation of CE in established companies. Beyond the academic relevance, the results of this paper can also help the management of CE in practice. The CE antecedents that have been identified as relevant in this study provide managers an overview of the most important leverages of CE within the company. Furthermore, the results of the expert interviews show that the importance of the respective determinants also depends on the company size. The dominant academic research focuses in its investigations mostly on large capital market-oriented enterprises. Accordingly, SMEs must critically review the recommendations for action provided in research for their applicability and adapt them if necessary. In summary, the empirical results demonstrate managers that CE is not just a theoretical concept, but that it is also recognized by experts as a suitable tool for enhancing innovative capacity of established organizations in practice.

However, these findings must be considered in the light of limitations of the study. For example, neither a causal relationship between the company size and the success of CE nor a theoretical saturation can be achieved only based on the qualitative empirical research approach. Future research could answer the question of causality by using a quantitative research approach. Furthermore, the results of this study must be viewed in respect of its limited sample size of twelve interviews in eight established enterprises. The results as well as the methodological limitations offer opportunities for future research. Scholars should consider a higher diversity in terms of industries, regions and cultures in theirexpert panel. Some studies have already indicated that the findings of the current state of research are also transferable regarding industries (Morris & Jones, 1999) and geographical boundaries (Antoncic&Hisrich, 2001). Nevertheless, it would be interesting to investigate whether the results also apply to service companies or organizations in other cultures. The findings of this study and the opportunities for future research indicate that CE is still of high importance. Therefore, this paper provides a point of orientation for scholars and managers in the research and implementation of CE in established companies of different sizes.

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