Journal of Business and Economics, ISSN 2155-7950, USA October 2016, Volume 7, No. 10, pp. 1704-1715 DOI: 10.15341/jbe(2155-7950)/10.07.2016/013 © Academic Star Publishing Company, 2016

http://www.academicstar.us



# Dynamic Capabilities and Growth of German Small and Medium Sized Enterprises

Jürgen Fonger (Szent Istvan University, Hungary)

Abstract: By this paper the results of a survey are used which have been collected as a part of the authors PhD studies. The theoretical approaches of the dynamic capabilities as well as growth of small and medium sized companies (SME) in general and the underlying growth models have been largely explored in the literature. However there are relatively few scientific research results to validate the theoretical models and assumptions. In this regard this paper is filling partly a gap. The explorative study focused on SME in Germany, region of North Rhine-Westphalia. This is one of Germanys' economic key areas and therefore considered to be very interesting to gather meaningful insights. Hence the SME were part of the manufacturing industry, which is an engine of the German economy. The results of the paper proved the strong correlation of dynamic capabilities and growth except for one hypotheses, the attitude of the Management towards growth.

**Key words:** SME; dynamic capabilities

**JEL codes:** D22, D83, L25

#### 1. Introduction

The resilience and good performance of the German economy during the last decade to a great extent has its roots in a strong and stable SME segment. Often referred to as the "backbone of the German economy", the German Mittelstand with its longstanding record of high employment and productivity increasingly raises interest abroad, where decision makers are keen to learn from the German model (BMWi, 2013). Obviously, there are specific factors unique to the German Mittelstand which account for its success and superior performance as well as its stabilizing role in the German economy. To analyze these factors in further detail, this section takes a closer look at the peculiarities and good practices of the SME segment in Germany.

According to Figure 1, 99.6% of all companies in Germany are SME, similarly to the EU average of 99.8%. Furthermore, SME employ about 60% of the German workforce and educate 83% of the apprentices in Germany. The training provided in this segment contributes decisively to the comparatively low level of youth unemployment in Germany (Public employment services, 2015). As one might expect, the shares of turnover and value added contribution lack somewhat behind, but SME still account for nearly 36% of the total turnover and contribute 55% to the value added.

Jürgen Fonger, MS Business Administration, MS Business Education, Ph.D. Student at Doctoral School of Management and Business Administration, Faculty of Economics and Social Sciences, Szent István University; research areas/interests: HR management within German SME. E-mail: juergenfonger@googlemail.com.

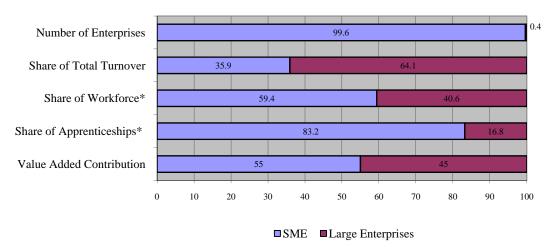


Figure 1 Significance of SME in the German Economy (IfM Definition, 2014)

### 2. Theoretical Framework

#### 2.1 The Role of SME in Germany

Like in other European countries, the SME segment in Germany is an extremely important segment of the economy and comprises a high share of the total number of German enterprises. There are approximately 3.6 million small and medium-sized enterprises in Germany compared to a good 16,000 large companies. The vast majority of these SME in turn are micro-enterprises with up to 9 employees and an annual business volume of less than 2 Million €(IFM, 2015). Like in other European countries, the SME segment in Germany is an extremely important segment of the economy and comprises a high share of the total number of German enterprises. The term SME is not used in Germany like in other countries, preferably the term "Mittelstand" is used: The definition of the German "Mittelstand" includes economic as well as social and psychological factors, which are crucial for the understanding of the peculiarities, significance and performance of this specific group of independent economic actors (Günterberg & Kayser, 2004). German SMEs generate 84% of turnover in the economic sector of construction, accommodation and food services, however, large enterprises have by far the largest turnover in general. In the reference year 2012, the turnover of SMEs amounted to less than one third of the total turnover in the overall economic sectors in Germany. With 47% for gross value added, 42% for gross investment in tangible goods and 45% for personnel costs, the relevant proportions of SMEs were smaller than those of large enterprises, too.

The economic importance of SMEs varies between the individual economic sectors. SMEs are of particular importance in construction and in the hotel and restaurant industry. In the reference year 2012, they generated more than 84% of turnover and their share in the persons employed was about 90%. In real estate activities and in some branches of services, SMEs are predominant, too. Contrary, the turnover of large enterprises in the total of enterprises is significant in manufacturing and in transport, storage and communication. The economic sector with the smallest proportion of small and medium-sized enterprises is that of energy supply, where SMEs accounted for less than 3% of turnover and just fewer than 13% of the persons employed in the reference year (Ziegenbalg et al., 2012).

Summarized, like in other European countries, the SME segment in Germany is extremely important for the economy and comprises a high share of the total number of German enterprises.

Table 1 depicts the number of enterprises, turnover and employees in Germany (for statistical reasons 2012 are the last available, valid data).

	Table 1 Quantity of Enterprises of Different Size in the German Economy (2012)				
Size*	Enterprises	Turnover	Employees (subject to social security contributions)		
	Number	In €1000	Number		
	Share	Share	Share		
M:	3,237,878	544,077,967	3,915,319		
Micro	90.0	10.9	15.6		
C11	278,459	583,988,226	4,717,064		
Small	7.7	11.7	18.7		
M 1'	64,137	752,035,727	5,221,382		
Medium	1.8	15.1	20.7		
CME	3,580,510	1,880,101,920	13,853,765		
SME	99.5	37.8	55.1		
т	16,738	3,098,835,582	11,311,521		
Large	0.5	62.2	44.9		
T. 4.1	3,597,248	4,978,937,502	25,165,286		
Total	100.0	100.0	100.0		

Table 1 Quantity of Enterprises of Different Size in the German Economy (2012)

Note: \* as defined by the European Commission

Source: Günterberg, 2012, p. 16

As Table 1 reveals, there are approximately 3.6 million small and medium-sized enterprises in Germany compared to a good 16,000 large companies. The vast majority of these SME in turn are micro-enterprises with up to 9 employees and an annual business volume of less than 2 Million €

Concerning the sectors the following figure depicts the distribution to branches of German SME.

■ Manufacturing (8 %)

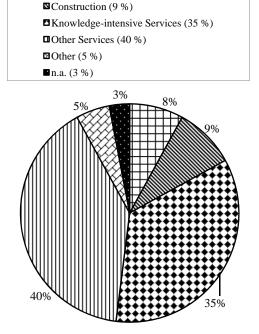


Figure 2 Sectoral Distribution of SME (Number of Enterprises)

Source: Tchouvakhina & Schwartz, 2013, p. 4.

Figure 2 firstly reveals that, on the one hand, about three-fourth of the German SME belong to the service sector. On the other hand, however, there is a greater number of larger SME in the manufacturing industry, employing a significant share of the workforce and accounting for a great deal of revenues in the sector. Hence,

though most of the SME belong to the service sector in Germany as well, the industry sector continues to play an important role in the SME segment (Tchouvakhina & Schwartz, 2013).

### 2.2 Growth Models of SME

Basically, growth models for SME can be divided into three groups: stochastic or random models, deterministic or static models, and stages models (Farouk & Saleh, 2011). Stochastic models were the first approaches to describe growth phenomena in SME. Based on the supposition that there are too many factors affecting growth, none of which has a dominant effect, it is assumed that the growth of firms is perfectly random and cannot be predicted by any groups of variables. Stages models assume that firms progress through different stages, typically including existence, growth, take-off and maturity (Farouk & Saleh, 2011). Popular contributions to this approach are, among others, the models developed by Steinmetz (1969), Greiner (1972) and Churchill and Lewis (1983). Churchill and Lewis describe the evolution of 5 main characteristics (management style, organization and extent of formal systems, major strategy, business and owner) as a SME progresses through 5 stages (existence, survival, success-disengagement, success-growth, take-off, resource maturity). Another example of similar structure, the stages growth model of Scott and Bruce (1987), is depicted in Table 2.

Table 2 Scott and Bruce SME Stages Growth Model

	Stage 1: Inception	Stage 2: Survival	Stage 3: Growth	Stage 4: Expansion	Stage 5: Maturity
Stage of Industry	Emerging, fragmented	Emerging, fragmented	Growth, some larger competitors, new entries	Growth, shakeout	Growth, shakeout or major, declining
Key Issues	Obtaining Customers, Economic production	Revenues and expenses	Managed growth, ensuring resources	Financial growth, maintaining control	Expense control productivity, niche marketing in decl. industry
Top Management Role	Direct supervision	Supervised supervision	Delegation, coordination	Decentralization	Decentralization
Management Style	Entrepreneurial, individualistic	Entrepreneurial, administrative	Entrepreneurial, coordinate	Professional, administrative	Watchdog
Organization Structure	Unstructured	Simple	Functional, centralized	Functional, decentralized	Decentralized, functional
Product and Market Research	None	Little	Some new product development	New product innovation, market research	Production innovation
Systems and Controls	Simple bookkeeping, eyeball control	Simple bookkeeping, personal control	Accounting systems, simple control reports	Budgeting systems, sales and production reports, delegated control.	Formal control, systems management by objectives
Major Source of Finance	Owners, friends and relatives, suppliers leasing	Owners, suppliers, banks	Banks, new partners, retained earnings	Retained earnings, new partners, secured long-term debt	Retained earnings, long-term debt
Cash Generation	Negative	Negative/ breakeven	Positive but reinvested	Positive with small dividend	Cash generator, higher dividend
Major	Plant and	Working	Working capital,	New operating	Maintenance of plant
Investments	Equipment	capital	extended plant	units	and market position
Product Market	Single line and limited channels and market	Single line and market, but increasing line and channels	Broadened but limited line, single market, multiple channels	Extended range, increased markets and channels	Contained lines. Multiple markets and channels

Source: Scott/Bruce, 1987, p. 48.

However, stages models are often criticized for their marked bias on internal factors and a lack of application

in longitudinal studies necessary to clearly understand the process of growth (Kuuluvainen, 2011).

The deterministic approach on the contrary aims at identifying diverse internal and external variables suitable to explain SME growth, such as individual characteristics, strategies and practices that are significantly related to growth (Farouk & Saleh, 2011). However, the ability of the deterministic approach to explain small business growth is limited and difficult to apply in different contexts (e.g., industry or country), because of the complex nature of growth phenomena and the marked heterogeneity of SME. As a matter of fact, as Menuhin and Hashai note, it is the idiosyncrasy in the development of firms emphasized in the resource based view and dynamic capability approach "...that makes it difficult to come up with firm growth models that explain capability development in terms of more general mechanisms" (Menuhin & Hashai, 2005, p. 3). Nevertheless, there exist a lot of approaches to explain firm growth with deterministic models. In the context of dynamic capabilities, the approach of Penrose (1959), stating that growth is an evolutionary process based on the cumulative growth of collective knowledge about the external business environment and on internal capital and human resources, is widely used as a starting point (Kuuluvainen, 2011). Gibb and Davies (1990) point to the vast variety in types of SME and the multidisciplinary nature of the variables affecting their growth, and conclude that "...there is no single theory which can adequately explain small business growth and little likelihood of such a theory being developed in the future" (Farouk & Saleh. 201, p. 4). They further state that there are four basic types of approaches to firm growth (Kuuluvainen, 2011). Wiklund et al. find that the full integrative model (step 1) explains only little (13%) of the variance in growth, while in the revised model (step 2) explained variance increases substantially (to 30%). They conclude that attitude and components of the environment (dynamism, hostility, and dynamism increase) have a direct effect on small business growth, while components of resources (resources of the individual, network resources, and resources of the firm) as well as attitude, industry, and components of the environment (dynamism, dynamism increase, hostility increase, heterogeneity increase) have an indirect influence on small business growth via entrepreneurial orientation (Wiklund et al., 2009).

#### 2.2 Dynamic Capabilities

Teece et al. point out that, though well-known companies like IBM or Philips succeeded in "global competitive battles" by following a strategy of accumulating valuable technology assets, a resource-based strategy like this is often not sufficient to achieve a sustained competitive advantage (Teece et al., 1997). As a matter of fact, even companies with a large stock of valuable technology assets sometimes lack useful capabilities. Rather, winners in the global competition stand out by showing timely responsiveness as well as rapid and flexible product innovation based on the capability to effectively coordinate and redeploy internal and external competencies. These abilities to achieve new forms of competitive advantage are referred to as "dynamic capabilities" to express the two key elements that distinguish the approach from previous views in its main focus (Teece et al., 1997). The term "dynamic" stands for the ability to renew competencies to meet the demands of an ever changing business environment. Timely and innovative responses are crucial prerequisites for success in a surrounding of rapid technology change and a hard to determine nature of future competition and markets, where time-to-market and timing are critical. The term "capabilities" highlights the importance of strategic management to appropriately adapting, integrating and reconfiguring internal and external organizational skills, resources and functional competencies in a changing environment. In this context, organizational competencies are defined as appropriate organizational routines and processes that are based on firm-specific assets assembled in integrated clusters of individuals and groups (e.g., quality, systems integration). These competencies typically are viable for multiple product lines and even may extend to alliance partners outside the firm. Core competencies are specific

to a firm's products and services and their value depends on the endowment of the firm relative to its competitors as well as on how difficult it is to replicate them (Teece et al., 1997). However, apart from the dynamic capabilities definition presented by Teece et al. there is a plethora of different further characterizations in the scientific literature. Table 3 presents a selection of various definitions.

Table 3 Selected Definitions of Dynamic Capabilities in the Scientific Literature

Helfat, 1997	The subset of competencies and capabilities that allow the firm to create new products and processes and respond to changing market circumstances		
T . 1			
Teece et al.,	The firm's ability to integrate, build and reconfigure internal and external competencies to address rapidly changing		
1997	environments		
Eisenhardt	The firm's processes that use resources-specifically the processes to integrate, reconfigure, gain, and release		
Martin, 2000	resources-to match and even create market change. Thus, dynamic capabilities are the organizational and strategic		
	routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve, and die.		
Teece, 2000	The ability to sense and then seize opportunities quickly and proficiently		
G : 66: 1	A global dynamic capability is the creation of difficult-to-imitate combinations of resources, including effective		
Griffith	coordination of inter-organizational relationships, on a global basis that can provide a firm with a competitive		
Harvey, 2001	advantage		
Rindova	Dynamic capabilities evolve at two levels: a microevolution through "upgrading the management capabilities of the		
Taylor, 2002	firm" and a macroevolution associated with "reconfiguring market competencies".		
Zahra George,	Dynamic capabilities are essentially change-oriented capabilities that help firms redeploy and reconfigure their		
2002 resource base to meet evolving customer demands and competitor strategies.			
Zollo Winter,	A dynamic capability is a learned and stable pattern of collective activity through which the organization		
2002	systemically generates and modifies its operating routines in pursuit of improved effectiveness.		
Macpherson et			
al., 2004	environment		
Alsos et al.,	There are four generic dimensions of dynamic capabilities: (1) external observation and evaluation, (2) external		
2007	resource acquisition, (3) internal resource reconfiguration, and (4) internal resource renewal		
Helfat et al.,			
2007	The capacity of an organization to purposefully create, extend, or modify its resource base.		
	Dynamic capabilities can be disintegrated into the capacity (a) to sense and shape opportunities and threats, (b) to		
Teece, 2007	seize opportunities, and (c) to maintain competitiveness through enhancing, combining, protecting, and, when		
	necessary, reconfiguring the business enterprise's intangible and tangible assets.		
Cillo et al.,	Dynamic capabilities are processes based on knowledge-they especially regard knowledge creation, knowledge		
2007	integration, and knowledge reconfiguration		
Augier Teece,	The ability to sense and then seize new opportunities, and to reconfigure and protect knowledge assets,		
2009	competencies, and complementary assets with the aim of achieving a sustained competitive advantage.		

Source: Kuulivainen, 2011, p. 38; Barreto, 2010, p. 260.

The Dynamic-Capabilities-approach is based on the "resource based view", a new understanding of strategic management introduced as a reaction to the prevailing market based approach in the late 1980s. While the market based view highlights the positioning of an enterprise in the market as a decisive factor for competitiveness and success and consequently calls for the adaption of the enterprise to the market, the resource based view takes the capabilities of an enterprise as a starting-point to choose an adequate market.

According to Porter (1990), the market based view places little emphasis on the impact of individual firm attributes on a firm's competitive position. Rather, it has adopted two simplifying assumptions to explain the impact of a firm's environment on its performance (Barney, 1991).

It is assumed that firms within an industry or strategic group are identical in terms of the strategically relevant resources they control and the strategies they pursue.

Should — perhaps through new entry-resource heterogeneity develop in such an industry or group, it will not last because resources used by firms to implement their strategies are highly mobile, i.e., they can be bought and sold in factor markets. On the contrary, the approach of the resource-based view to explain competitive

advantages is based on two alternative assumptions (Barney, 1991). Firms within an industry or group are heterogeneous with respect to the strategic resources they control. These resources are not perfectly mobile across firms, so heterogeneity can actually be long lasting. Resource-based models use the implications of these two assumptions to identify and analyze sources of sustained competitive advantage. In a notable article contributing to the dynamic capability approach literature, Teece et al. put it this way

"The resource-based approach sees firms with superior systems and structures being profitable not because they engage in strategic investments that may deter entry and raise prices above long-run costs, but because they have markedly lower costs, or offer markedly higher quality or product performance. This approach focuses on the rents accruing to the owners of scarce firm-specific resources rather than the economic profits from product market positioning.[...] Competitive advantage lies 'upstream' of product markets and rests on the firm's idiosyncratic and difficult-to-imitate resources." (Teece et al., 1997, p. 513).

# 3. Case Study

### 3.1 Fieldwork Description

In order to close partly the gap between the theoretical approaches and framework described above and data basing results the study focuses on small and medium sized enterprises of the manufacturing sector in North Rhine-Westphalia, Germany with a labor force ranging from 10 to 250 employees. Altogether, this is potentially a number of about 3900 enterprises. To check for comprehensibility and suitability of the questions, a pre-test was conducted during summer 2015 by of face-to-face interviews with 30 randomly chosen SME. Overall 103 interviews as an explorative survey have been examined.

# 3.2 Tested Hypothesis

According to the theoretical assumptions, distinct dynamic capabilities enable firms to timely react to changes in the environment and, as a consequence, to gain and maintain competitive advantages and increase profit. Scientific literature indicates that there is a positive and significant relationship between the dynamic capabilities of an SME and its performance and growth (prospects), (Eisenhardt Martin, 2000; Zollo Winter, 2002; Teece, 2007; Helfat et al., 2007; Barreto, 2010). These implications are analyzed here by using an approach similar to the ones of Teece (2007) and Zahra et al. (2006), who put the focus on the role of opportunity gathering and selection for the development and exploitation of dynamic capabilities. Zahra et al. (2006) define dynamic capabilities as "...the abilities to reconfigure a firm's resources and routines in the manner envisioned and deemed appropriate by its principal decision-maker(s)" and add that the creation and use of dynamic capabilities correspond to the decision-makers' perception of opportunities to productively change existing routines and/or resource configurations (Zahra et al., 2006). Consequently, dynamic capabilities as a special quality determine a firm's ability to pursue opportunities in new and potentially more effective ways, depending on the management's willingness and ability to undertake and implement the corresponding changes. This view is consistent with the conclusions of several other authors like Rindova and Taylor (2002), who state that dynamic management capability is a crucial prerequisite for a firm's ability to spot and exploit opportunities in evolving environments, or Lee et al. (2002), who find that the ability to conceptualize the capability to cope with environmental changes by identifying and exploiting opportunities is an important source of competitive advantage.

To sustain dynamic capabilities, SME executives need various leadership skills, and an important task of the management is to achieve "semi-continuous asset orchestration and corporate renewal, including the redesign of routines" (Teece, 2007). Continuous efforts to build, maintain, and adjust the complementarity of products or

services, systems, routines and structures are needed to maintain competitiveness and achieve superior profitability and sustained growth. Hence, to minimize internal conflict and maximize complementarities and productivity inside the enterprise, measures like asset alignment, co alignment, realignment, and redeployment have to be taken continuously. As a result, SME growth requires continuous or at least periodical reconfiguration and/or adjustment of the resource base (especially financial and human capital) and product or service offerings by using dynamic capacities which help to keep up with market requirements. The market is characterized by great openness resulting from globalization, frequent changes in consumer demand and technologies and corresponding short product life cycles. The main elements of the enterprise's resource base are the following:

Financial capital: allows investments in new resources and is the result of the actions taken by the enterprise's management in the past. Human capital can be defined as skills as well as explicit and tacit knowledge that the work force has acquired through schooling, on-the-job-training, and other types of experience. It can be divided into the sub-categories education (prior knowledge), experience and learning (Hien, 2009).

Previous research on firm growth suggests that entrepreneurial orientation of a firm or its executives is another important factor to foster firm growth (Wiklund, 1998; Zahra Covin, 1995). Defined as innovative, proactive and risk-taking behavior, entrepreneurial orientation and its impact on firm growth has been investigated theoretically (e.g., Lumpkin Dess, 1996) as well as empirically (e.g., Wiklund Shepherd, 2005; Covin et al., 2006) and though some studies imply that different dimensions of entrepreneurial orientation may have diverse effects on firm performance, the positive effect of the construct of entrepreneurial orientation on firm growth is pretty unambiguous. Wiklund and Shepherd (2005) confirm the positive influence of entrepreneurial orientation on growth and financial performance and add that the effect is moderated by the dynamism of environment and capital availability.

Though there is a common consensus with regard to the positive effects of dynamic capabilities and entrepreneurial orientation on SME growth, the respective magnitude of the effects is another question of interest yet to analyze. Some authors suggest that entrepreneurial orientation and dynamic capabilities have a complementary character in as far as the ability to constantly reconfigure the resource base and a management attitude characterized by innovativeness, pro-activeness and a moderate risk-taking propensity mutually amplify each other and, as a consequence, both characteristics in combination do have a positive effect on SME growth that is stronger than the sum of the isolated effects of each of these properties (e.g., Jiao et al., 2010).

Previous scientific research implies that a positive attitude towards growth, manifested in a strong motivation and the willingness to take adequate measures timely, determines the opportunities to expand the business and realize growth. Again, it is assumed that there is a direct and indirect effect via entrepreneurial orientation.

Summarized, the following Table depicts the tested hypotheses, which were established as well as the corresponding items used for the survey:

#### Table 4 Summarized Hypothesis/Own Elaboration

H1:	The systemic integration of a SME's ability to detect opportunities and take advantages to exploit and continuously approve its resources base has a positive influence on the growth of small and medium sized enterprises.
H 2:	Intellectual capital has a positive influence on growth.
H 3:	The grater the availability of financial capital, the greater is the growth of SME.
H 4:	The growth attitude taken by the Management directly influences SME growth in a positive way.
H 5:	The dynamism of environment has a direct negative influence on SME growth.
H 6:	International market orientation has a positive influence on growth.

### 3.3 Analysis

To test the dimensionality of the items of the scale DC, Int\_Cap, Attid\_Growths and Dynamic Environment a major axis analysis has been applied. The correlation of the items is carried out by means of the Bartlett test. This resulted in a significant result,  $\chi^2(91) = 2371.06$  and p = 0. This is according to the test in front of a significant correlation between the items. Further, the suitability of the items was examined by the Kaiser-Meyer-Olkin criterion. The table shows the result of the MSAs of items. The amount of the MSA varies between 0.63 and 0.94. These calculations place all items larger 0.5 within the acceptable range. Here is Int\_Cap1 with 0.61 the slightest aptitude among the items before. Nevertheless, they can be described as mediocre. DC2 appears as the most appropriate item with 0.94 and shows us according to the above schedule, a "amazing" ability to. Nevertheless meet all the minimum items to the suitability of a factor analysis. It is also suggested to run the Bartlett test for a significant correlation, so that all the items have been used for the factor analysis.

The major axis analysis was performed with a varimax rotation. The following Figure 3 shows the rotated loading matrix. It's obvious to see that the mating Items upload and clearly on each with its own factor. The dimensionality of the scales can therefore be assumed to be detected. The reliability analysis showed high reliabilities imputed scales. The results can be found in the graph below. When installing a linear regression to examine the hypotheses structural breaks within the data showed. The graph shows the estimated values of the growth for the first regression model. The red vertical line indicates the index of the observation to which the structural break occurs. For 74 indexes smaller than the average level of the estimated growth is about 5%. This is to the SMEs with positive growth.

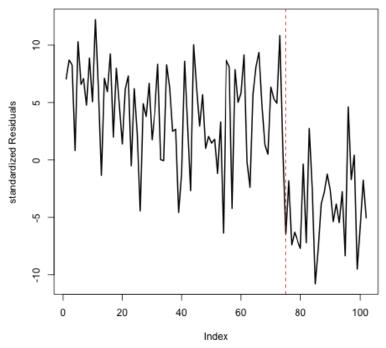


Figure 3 Reliability Analysis/Own Elaboration

Tables 5-7 summarize the results of MSA for each item, the results of the factor analysis and the Cronbach's alpha results.

Table 5 MSA, Own Elaboration

Item	MSA
DC1	0.87
DC2	0.94
DC3	0.87
DC4	0.88
DC5	0.89
Int_Cap1	0.63
Int_Cap2	0.81
Int_Cap3	0.71
Attid_Growths1	0.72
Attid_Growths2	0.79
Attid_Growths3	0.78
Dynamic Environment1	0.70
Dynamic Environment2	0.81
Dynamic Environment3	0.72

Table 6 Cronbachs Alpha, Own Elaboration

Scala	Cronbach's α
DC	0.99
Int_Cap	0.98
Attid_Growths1	0.98
Dynamic Environment1	0.97

Table 7 Factor Analysis, Own Elaboration

Item	Factor 1	Factor 2	Factor 3	Factor 4
DC1	0.98	-0.02	0.07	-0.05
DC2	0.95	-0.06	0.07	-0.04
DC3	0.97	-0.03	0.04	-0.03
DC4	0.94	-0.03	0.08	0.00
DC5	0.98	-0.01	0.04	0.01
Int_Cap1	-0.05	1.00	0.08	-0.01
Int_Cap2	-0.05	0.95	0.05	-0.01
Int_Cap3	-0.01	0.97	0.07	-0.02
Attid_Growths1	0.04	0.09	0.97	-0.07
Attid_Growths2	0.10	0.07	0.96	0.00
Attid_Growths3	0.08	0.07	0.96	-0.07
Dynamic Environment1	-0.02	0.00	-0.07	0.98
Dynamic Environment2	-0.05	-0.03	-0.03	0.93
Dynamic Environment3	-0.01	-0.02	-0.04	0.97

# 4. Conclusions

The analysis of the data reveals a strong correlation between dynamic capabilities and growth of the companies. By this the hypotheses could be confirmed in case of one. The hypothesis "The growth attitude taken by the Management directly influences SME growth in a positive way" was not confirmed. A possible explanation might be that an attitude towards growth is not necessarily needed or actually present as a goal of its own but a result of a successful business management. In this way the Managers, although having an attitude to meet their

targets, do not literately define growth as an objective during their answers. Still this filed is interesting for further research or for an optimizing of the questionnaires. Hence there is an advantage for those SME that focus on in international orientation in order to find or keep customers beyond the borders. As the globalization is a scientific largely explored, recognized phenomenon especially for large companies this survey results show that this is also relevant for SME. The data revealed that an international orientation correlates with growth among SME. This is an important aspect for the decision making processes of the management and for the strategic orientation of the company.

#### References

- Barney J. (1991). "Firm resources and sustained competitive advantage", Journal of Management, Vol. 9, No. 4, pp. 49-61.
- Barreto I. (2010). "Dynamic capabilities: A review of past research and an agenda for the future", *Journal of Management*, Vol. 36, No. 1, pp. 256-280.
- BMWi Bundesministerium für Wirtschaft und Technologie (2013). "German Mittelstand: Engine of the German economy", Federal Ministry of Economics and Technology, Public Relations Division, Berlin.
- Churchill N. C. and Lewis V. L. (1983). "The five stages of small business growth", Harvard Business Review, May-June, pp. 30-50.
- Covin J. G., Green K. M. and Slevin D. P. (2006). "Strategic process effects on the entrepreneurial orientation Sales growth rates relationships", *Entrepreneurship Theory and Practice*, Vol. 30, No. 1, pp. 57-81.
- Eisenhardt K. M. and Martin J. A. (2000). "Dynamic capabilities: What are they?", *Strategic Management Journal*, Vol. 21, pp. 1105-1121.
- Farouk A. and Saleh M. (2011). "An explanatory framework for the growth of small and medium enterprises A system dynamics approach", *Proceedings of the 29th International Conference of System Dynamics Society*, Washington, DC., 24-28 July 2011, available online at: http://www.systemdynamics.org/conferences/2011/proceed/papers/P1050.pdf.
- Gibb A. and Davies L. (1990). "In pursuit of frameworks for the development of growth models of the small business", *International Small Business Journal*, Vol. 9, No. 1, pp. 15-32.
- Greiner L. E. (1972). "Evolution and revolution as organizations grow", Harvard Business Review, July-August, pp. 37-46.
- Günterberg B. (2012). "Statistics on companies sizes Companies, turnover and employment from 2004 until 2009 in Germany Institute for SME research", (IfM), March 2012, Bonn.
- Günterberg B. and Kayser G. (2004). "SMEs in Germany Facts and figures 2004", Institut für Mittelstandsforschung (IfM), *IfM-Materialien Nr. 161*, Bonn.
- Hien T. T. (2009). "Human capital, social capital, and successful entrepreneurship in Vietnam", in: Kyrö P. & Riviezzo A. (Eds.), *Many Voices of European Entrepreneurship Research*, papers presented at the *ESU Conference on Entrepreneurship 2009*, September 8-13, 2009, University of Sannio Benevento.
- IFM Definition (2014). Definitions of SME and Mittelstand, Institute for SME Research, Bonn/Germany.
- IFM (2015). Statistics on SME and Mittelstand, Institute for SME research, Bonn/Germany.
- Jiao H., Wei J. and Cui, Y. (2010). "An empirical study on paths to develop dynamic capabilities: From the perspectives of entrepreneurial orientation and organizational learning", *Frontiers of Business Research*, Vol. 4, No. 1, pp. 47-72.
- Kuuluvainen A. (2011). "Dynamic capabilities in the international growth of small and medium-sized firms", Turku School of Economics, Series A-4: 2011, Turku, pp. 38-40.
- Lee J., Lee K. and Rho S. (2002). "An evolutionary perspective on strategic group emergence A genetic algorithm-based model", *Strategic Management Journal*, Vol. 23, No. 8, pp. 727-747.
- Menuhin J. and Hashai N. (2005). "Firm growth profiles (FGPs): Towards an action-based view of firm development", Samuel Neaman Institute for Advanced Studies in Science and Technology, Working Paper Series, 24, Haifa.
- Penrose E. T. (1959). The Theory of the Growth of the Firm, New York, John Wiley.
- Porter M. (1990). "Why are firms successful?", in: The Fundamental Issues in Strategy Conference, Napa, CA.
- Public Employment Services (2015). Development of the Youth Unemployment, Nürnberg: Germany.
- Rindova V. and Taylor S. (2002). "Dynamic capabilities as macro and micro organizational evolution", Robert H. Smith School of Business, University of Maryland.
- Scott M. and Bruce R. (1987). "Five stages of growth in small business", Long Range Planning, Vol. 20, No. 3, pp. 45-52.
- Steinmetz L. L. (1969). "Critical stages of small business growth", Business Horizons, February 1969, pp. 29-36.

- Tchouvakhina M. and Schwartz M. (2013). "Diversity is crucial: How the SME sector in Germany compares with others in Europe", *KFW Economic Research, Focus on Economics*, No. 24, July 2.
- Teece D. J., Pisano G. and Shuen A. (1997). "Dynamic capabilities and strategic management", *Strategic Management Journal*, Vol. 18, No. 7, pp. 509-533.
- Wiklund J. (1998). "Small firm growth and performance: Entrepreneurship and beyond", Ph.D. Thesis, Jönköping International Business School.
- Wiklund J., Patzelt H. and Shepherd D. A. (2009). "Building an integrative model of small business growth", *Small Business Economics*, Vo. 32, pp. 351-374.
- Wiklund J. and Shepherd D. (2005). "Entrepreneurial orientation and small business performance: A configurational approach", *Journal of Business Venturing*, Vol. 20, pp. 71-91.
- Wiklund J., Patzelt, H. and Shepherd D. A. (2009). "Building an integrative model of small business growth", *Small Business Economics*, Vol. 32, pp. 351-374.
- Zahra S. and Covin J. (1995). "Contextual influence on the corporate entrepreneurship-performance relationship: A longitudinal analysis", *Journal of Business Venturing*, Vol. 10, pp. 43-58.
- Zahra S., Sapienza H. J. and Davidsson P. (2006). "Entrepreneurship and dynamic capabilities: A review, model, and research agenda", *Journal of Management Studies*, Vol. 43, No. 4, pp. 917-955.
- Ziegenbalg C., Munteanu O., Welck, H. and Seidel K. (2012). "Comprehensive Analysis of programmes and Initiatives in Germany that assist the collaboration between science and SME", Report conducted for the European Commission MaPEer SME, December 2012.