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To what extent are SME decision-makers familiar with the most common strategy methods? Results of a survey among presidents, owners, CEOs and managing directors of industrial SMEs

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Abstract— *The objective of this article is to examine whether decision makers of small and medium enterprises (SMEs) are familiar with the most common strategy methods. To this end, a survey was conducted among decision-makers (presidents, owners, managing directors & CEOs) of SMEs to determine their knowledge of standard strategy methods which were identified for this investigation as SWOT-Match, Competitive Profile Matrix (CPM), Strategic Position & Action Evolution Matrix (SPACE-Matrix), Boston Consulting Group Matrix (BCG-Matrix), Internal & External Matrix (IE-Matrix), and the Grand Strategy Matrix (GSM). The results showed that approx. 50% do not know any strategy method at all and approx. 60% have never used strategy methods in their professional life. This confirms the assumption that SME decision-makers have limited knowledge of strategy methods, strategy development and planning. In addition, the standard methods were evaluated by 2 participants for their suitability, and they gave an assessment of whether formalized strategic planning is helpful for the long-term success of SMEs.*

Keywords— ***Strategy methods, SWOT-Match, Competitive Profile Matrix, Strategic Position & Action Evolution Matrix, Boston Consulting Group Matrix, Internal & External Matrix, Grand Strategy Matrix, Small and Medium Enterprises, SMEs.***

I. INTRODUCTION

In short, small and medium enterprises (SMEs) are described as independently operating companies with less than 250 employees and less than 50 Mio € revenues or a balance sum below 43 Mio € (European Commission 2017).

Although SMEs play such a significant role in the world-wide economy, they are rarely focus of investigation and theory building, especially in the field of strategic management, strategic positioning, and resilience (Belas et al. 2022, Dimson et al. 2020, Klausmann et al. 2020). SMEs are generally less resilient than large and public companies, which usually have more resources and reserves and have implemented an established strategic development process (Eggers, F. 2020, Gunasekaran et al. 2011, Herbane 2012, Hong et al. 2012, Kraus et al. 2013, Ozgulbas et al. 2012). It is generally recognized that industrial SMEs have fewer resources than larger or public companies (Conz et al. 2015, Juergensen et al. 2020). This applies in particular to financial resources, but also to management capacities and management

expertise (Adam et al. 2021, Bouncken et al. 2022, Mayr et al. 2016, Vargo et al. 2011).

The aim of this paper is to investigate the level of knowledge of (standard) strategy methods among CEOs, managing directors, owners, presidents, in the following the decision-makers, of industrial SMEs and the frequency of their use for strategy development and implementation. These decision-makers are the ones who decide about, start and drive strategy activities in SMEs. If they do not have or have only limited knowledge about strategy methods, it can be assumed that structured strategy planning and implementation will not or only happen in an unstructured intuitive way.

Kelly et al. (2014) for example, found that a strong entrepreneurial orientation (Lumpkin et al. 1996, Latham 2009) is not enough for SMEs to be successful, but that it would be helpful for SME decision-makers to acquire basic skills for formal strategic planning. They found out that the emergent approach (Mintzberg 1973) alone has a negative impact on business success because it reduces the positive effects of proactivity and innovation. In recent years, researchers have also investigated the necessity of ambidexterity (simultaneously successful in exploitation and exploration orientation) for the survival in crises of SMEs (Bouncken et al. 2022, Dolz et al. 2018, Kraus et al. 2020).

A comprehensive understanding of strategic methods and practical experience in their application is essential for the development of a structured and planned strategy development.

In order to investigate this, a survey was conducted in which around 250 decision-makers from industrial SMEs were contacted, 31 of whom responded.

II. METHODS

2.1 Online survey

The aim of this paper is to investigate:

(a) the level of knowledge of (standard) strategy methods among the decision-makers of industrial SMEs

(b) the frequency of the use of the named strategy methods for strategy development and implementation

(c) knowledge of other strategy methods than the mentioned and if they use them for their strategy development process

(d) would they see significant benefit for the long-term success of their firm if they have knowledge of the methods named in the survey?

For that purpose, six strategic methods were identified as standard methods for this work, as these methods are taught as standard methods in the textbook of Fred et al. (2017).

1. SWOT-Match method: based on the SWOT-Analysis (Strengths & Weaknesses = IFE-Matrix, Opportunities & Threats = EFE-Matrix) the SWOT-Match method develops possible strategies by linking internal strengths with external opportunities, internal strengths with external threats, internal weaknesses with external opportunities, and internal weaknesses with external threats. Initially, as many alternative strategies as possible are developed in a value-free manner and without any claim to feasibility. The SWOT-Analysis is a prerequisite for the SWOT-Match method and provides important insights into the company's situation in the market (industry) environment, but initially no possible strategies for the future.

2. Competitive Profile Matrix = CPM method: with this method, the most important competitors are identified and compared with the company's own company and its own strategic position based on internal and external success factors, whereby the individual success factors are weighted. This provides important information regarding the company's own competitive position, which in turn can be used to derive strategies for improving the competitive position.

3. Strategic Position & Action Evolution Matrix = SPACE-Matrix method: is a four-quadrant framework that assesses two internal dimensions (financial position and competitive position) and two external positions (stability position and industry

position). Depending on the outcome, it indicates whether aggressive, conservative, defensive, or competitive strategies are appropriate.

4. Boston Consulting Group Matrix = BCG-Matrix method: is also a four-quadrant framework method based on the two dimensions (1) relative market share position (RMSP) on the x-axis and (2) industry growth rate (IGR) on the y-axis. Depending on the quadrant in which the valued company / business unit is located appropriate standard strategies are proposed. This method is mainly used to analyze the strategic position of larger firms` divisions / business units to apply appropriate strategies for each unit but can also be used to develop strategies for SMEs.

5. Internal-External Matrix = IE-Matrix method: This method is based on the IFE- and EFE-Matrix of the SWOT-Analysis and a nine-cell framework. Similar to the BCG-Matrix method standard strategies are proposed depending on the cell in which the results are located.

6. The Grand Strategy Matrix = GSM method: is also a four-quadrant framework tool to formulate alternative strategies and is based on the evaluation the 2 dimensions (1) competitive position on the x-axis and (2) market (industry growth) on the y-axis.

While methods 1,3,4,5,6 focus on developing alternative strategies, method 2 (CPM) focuses on identifying the own competitive position relative to the key competitors.

Then the following questions for the survey were formulated:

1. Which of the following methods for strategy development do you know?
   a. Strength-Weakness-Opportunities-Threats (SWOT)-Match
   b. Competitive Profile Matrix (CPM)
   c. Strategic Position & Action Evolution Matrix (SPACE)
   d. Boston Consulting Group (BCG) Matrix
   e. Internal-External (IE) Matrix
   f. Grand Strategy Matrix (GSM)
2. Did you or use you one or more of these methods? If yes which ones? Do you use an alternative method?

Because knowledge of these issues is not publicly available the author contacted via his LinkedIn account (https://www.linkedin.com/in/juergen-klausmann-796a9456/) his LinkedIn contacts who seemed to be decision-makers of SMEs. Once a contact answered the two survey questions, the author asked the respondent for the number of employees and the annual revenues of their company to check whether the respondent's company met these two SME criteria. To make it easier for participants to respond, only these two criteria (number of employees and annual revenues) were used to define an SME for this study.

2.2 Number and location of participants generated

In the period of January 2023 to April 2025 around 250 decision-makers of SMEs were contacted and 31 responses received which corresponds to a participation rate of around 12 %. Thereof 22 are located in Germany, 2 in Austria and 9 in USA.

In total 26 companies of the participants fulfilled both criteria for SMEs (≤ 50 Mio € annual revenues and ≤ 250 employees).

A closer look at the companies that do not fulfill the 2 criteria for SMEs shows the following:

- two companies (one in Germany, one in the USA) with annual sales of €80 million and USD 105 million and employee numbers of 400 and 330 violate both criteria, but are typical SMEs in terms of their structure and business activities and are therefore included in the further analysis
- two US companies violated the sales criterion with USD 300 million and USD 80 million but did not violate the employee criterion with 150 and 115 employees, so that the company with annual sales of USD 80 million and 115 employees (very close to the 2 criteria) is included in the further analysis.
- one German company with annual sales of € 450 million and 4,500 employees clearly exceeds both criteria.

Therefore, the answers of 29 participants will be used for the following.

2.3 Meaningfulness of the generated number of participants

In 2018 alone in Germany 3,466,583 SMEs existed of which 20.3% equates to 703,716 were SMEs in the manufacturing sector (IfM 2017), meaning an extremely large population size exists with no knowledge about the standard deviation in the total population or about the proportion of the population with regards to the questions in the questionnaire. Based on that, the confidence level Z for the results of this questionnaire was calculated.

$$z = \sqrt{\frac{n \cdot E^2}{p(1-p)}} \quad (1)$$

n = 29, sample size

p = 0,5, proportion

Z = Z level for the desired confidence level

E = 10%, the maximum allowable error

Based on equation (1) the confidence level Z of the survey results of 29 participants is 86% at an allowable error rate of 10%.

2.4 Testing and evaluating the strategy methods in practice

After receiving the answers to the 2 survey questions and to the SME criteria the participants were asked if they were interested in learning and testing the strategy methods mentioned to evaluate and improve their existing strategy or to develop a corporate strategy if no formal strategy exists yet.

Of the 29 SME survey participants 5 agreed to take part in this process. But only 2 completed the process (no 8, no 10).

The process of evaluating the methods was as following:

The author designed one excel files per strategy method. Then he sent the 1. file to the participant and explained the task by a Teams meeting. After receiving the completed excel file, he evaluated the file, asked the participant to make corrections, if necessary, explained the results via Teams meeting and discussed the next excel file. At the end of the entire process which lasted appr. one year, a final interview took place.

III. RESULTS

3.1 Survey results

19 of the 29 participants indicated that they know the SWOT-Match method but when again contacted 14 of the 19 participants stated that in fact, they know the SWOT-Analysis and only 5 of 29 (17%) stated that they know indeed the SWOT-Match method (and have also used it).

However, the author posits that the SWOT-Analysis is not a strategy method in itself, but rather a preparatory tool for the subsequent application of a strategy method, namely the SWOT-Match method. The list of methods was therefore expanded for the results analysis and the SWOT-Analysis was placed above the SWOT-Match method. Furthermore, the following analysis in table 1 shows the survey results with and without the number of mentions of the SWOT-Analysis.

The CPM method is known by only 7 (24%) participants, the SPACE method by only 3 (10%) participants, the BCG-Matrix method which is the most known method by 10 (34%) participants, the IE-Matrix method by only 2 (7%) participants and the GSM method is known by no participant.

Table 1: Number of participants knowing / not knowing mentioned strategy method

Strategy method	No of participants familiar with method	Percentage	No of participants not familiar with method	Percentage
SWOT-Analysis	19	66%	10	34%
SWOT-Match	5	17%	24	83%
CPM	7	24%	22	76%
SPACE	3	10%	26	90%

BCG-Matrix	10	34%	19	66%
IE-Matrix	2	7%	27	93%
GS-Matrix	0	0%	29	100%

In table 2 it is shown how many strategy methods the individual participants actually know.

14 (48%) of the respondents do not know of a single method for strategic planning, 7 (24%) know only one method, whereas 5 (17%) know 2 methods, 2 (7%) know 3 and 1 (3%) know 5 methods (excluding SWOT-Analysis as a method).

Table 2: Number of strategy methods known to the individual participants

No of Strategy method known to participant	No of participants familiar with method incl. SWOT-Analysis	Percentage	**No of participants familiar with method excl. SWOT-Analysis**	**Percentage**
0	9	31%	**14**	**48%**
1	6	21%	**7**	**24%**
2	6	21%	**5**	**17%**
3	5	17%	**2**	**7%**
4	2	7%	**1**	**3%**
5	1	3%	**0**	**0%**
6	0	0%	**0**	**0%**
7	0	0%	**-**	**-**
Total	29		**29**	

Table 3 presents the frequency of strategy method utilization in SMEs.

Assuming that the SWOT-Analysis is not a strategy method then only 5 (17%) of the participants have used or use the SWOT-Match method, similar 5 (17%) use(d) the CPM method, 3 (10%) the SPACE method and 6 (21%) the BCG Method which is the most used method; IE-Matrix and GS-Matrix is not used by any participant.

Table 3: No of participants who have used or use mentioned strategy method

Strategy method	No of participants have used or use method	Percentage	No of participants did /do not use method	Percentage
SWOT-Analysis	18	62%	11	38%
SWOT-Match	5	17%	24	83%
CPM	5	17%	24	83%
SPACE	3	10%	26	90%
BCG-Matrix	6	21%	23	79%
IE-Matrix	0	0%	29	100%
GS -Matrix	0	0%	29	100%

Table 4 shows how many strategy methods the individual participants actually use or have used.

17 participants (59%) do not use or did not use a single strategy method, only 8 (28%) use(d) one method, whereas only 1 (3%) use(d) 2 methods and 3 (10%) use(d) 3 strategy method (excluding SWOT-Analysis as a method).

Table 4: Number of strategy methods applied or in use by the individual participants

No of Strategy methods applied or in use	No of participants who have used or use method incl. SWOT-Analysis	Percentage	**No of participants who have used or use methods excl. SWOT-Analysis**	**Percentage**
0	11	38%	**17**	**59%**
1	6	21%	**8**	**28%**
2	8	28%	**1**	**3%**
3	1	3%	**3**	**10%**
4	3	10%	**0**	**0%**
5	0	0%	**0**	**0%**
6	0	0%	**0**	**0%**
7	0	0%	**0**	**-**
Total	29		**29**	

US participant No 16 is using in addition to the BCG-Matrix method the Entrepreneurial Operating System method (Wickmann 2007) and US participant No 22 is using in addition to the SWOT-Match method the Rockefeller Habits method (Harnish 2024) and the Gazelles OPSP method (Harnish 2022).

3.2 Results of the testing and evaluating process

In order to investigate whether the strategy methods mentioned actually have added value for the development of corporate strategies of SMEs (and the longer-term success of the firm), the survey participants were asked whether they would be willing to develop a formalized strategy or revise their existing strategy under the guidance of the author with the help of the methods mentioned.

Of the 29 respondents, five agreed to participate in the strategy development process, but one (No 11) dropped out immediately after receiving detailed information about the process and the effort involved; the second decision maker (No 12) dropped out after six months and the third (No 28) stopped after 5 months, both because of overwhelming day to day challenges. They cited urgent tasks and day-to-day challenges as reasons for dropping out. 2 participants (No 8, No 10) completed the exercise over a period of approximately one year.

It is striking that the participants who completed the entire process had an MBA or economics degree, in contrast to the participants who cancelled the process, who had engineering degrees or no degree. In addition, the participants who completed the process were already familiar with several strategy methods and had experience in using them, while the participants who cancelled the process were not familiar with any strategy method.

At the end of the entire process, the 2 participants participated in an expert interview and evaluated the methods and the process.

In addition to the 6 strategy methods mentioned above, the Quantitative Strategic Planning Matrix (Fred et al. 2017) was used in this exercise to prioritize the identified company strategies.

Table 5 gives an overview about the 5 participants, their firms, and the results of the process.

It should be noted in advance that the results of the 2 participants are not representative of industrial SMEs for the reasons mentioned above.

Both participants used the process as an opportunity to question, prioritize and further develop their non-

formalized but already existing strategy and strategic goals. Both found the process helpful and supportive for their strategy development. Both participants already used the SWOT-Analysis and prefer the CPM method for determining the competitive situation and the BCG-Matrix method for the development of corporate strategies. Participant number 8 described in addition the SWOT-Match method and QSPM method as very helpful. In addition, participant number 10 will use the formalized strategy process to improve the communication with his employees.

Table 5: Participants of the strategy method testing, evaluation & development process

Information / Participant	No 8	No 10	No 11	No 12	No 28
Annual revenues	< €50 million	€12 million	€31 million	€16 million	€1 million
No employees	10	80	81	110	3,5
Company`s activity	Development of solar parks	Manufacturing of metallic high precision parts	Manufacturing of hot formed parts by hot forging	Manufacturing of electronics and PCB assembly	Trade with and installation of building locking technology
Company`s age	<10	>10	>10	>10	<5
Participant`s position	Shareholder, CEO	Owner, CEO	Owner, CEO	Owner, CEO	Owner, CEO
Participants education	M.A. Economics	MBA	Dipl. Ing. (Ph.D.)	Dipl. Ing.	Sales expert
Completion of the entire strategy exercise	Yes	Yes	No	No	No
Reason for termination of exercise			No time as busy with new organizational structure	Urgent tasks and day-to-day challenges	Urgent tasks and day-to-day challenges
Strategy methods were known & applied prior to the exercise	SWOT-Analysis, CPM	SWOT-Analysis, CPM, BCG-Matrix	SWOT-Analysis	No	No
Informal strategy in place before exercise	Yes	Yes	Yes	Yes	No
Was the effort worthwhile?	Yes	Yes	-	-	-
Achievements through exercise	Existing strategies were formulated with greater clarity and prioritized	Formalized strategies are used to communicate with employees	-	-	-
What are your favorite methods?	SWOT-Match, CPM, BCG, QSPM	SWOT-Analysis, CPM, BCG	-	-	-

Is a formalized strategy process helpful for the success of SMEs?	Yes	Yes	-	-	-

IV. DISCUSSION

The results of the survey confirm the general statements about the limited resources and management knowledge regarding strategy planning and development of SMEs. They provide detailed information about the strategic methods that decision-makers of industrial SMEs actually know. 48% of the participants do not know any standard strategy method and 59% do not or did not use any standard strategy method during their career. To the participants the best known (34%) and most used (21%) method is the BCG-Matrix method, which is surprising, as this method was developed more for large companies with several divisions. Furthermore, the participants were only aware of 2 other strategy methods beside of the 6 standard methods surveyed, i.e. it is indeed the case that approx. 60% of the participants did not and do not use any strategy method for strategy development, which leads to the conclusion that no formalized planned strategy development takes place in approx. 60% of industrial SMEs.

The final objective of this study - whether SME decision-makers see a significant benefit for the long-term success of their company if they have knowledge of strategy methods - could not be answered conclusively, as only 2 decision-makers - and these are not representative for decision-makers of industrial SMEs - could be recruited for the testing and evaluation process. There is therefore a need for further research on this topic, as the authors believe that in our highly competitive and global world, formal strategy development and planning for decision-makers of industrially active SMEs needs to be given more space compared to day-to-day challenges and tactical tasks.

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