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Topic: Strategic management at the level of purchase categories: A multiple case study to explore purchase category strategy development in practice

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FAI	First Article Inspection
LCE	Life Cycle Engineering
MG	Material Group
NPD	New product development
NRE	Non-recurring engineering
OEM	Original Equipment Manufacturer
PESTLE	Political, Economic, Sociological, Technological, Legal, Environmental
PPC	Purchasing price change
PPQ	Process Performance Qualification
RACI	Responsible, Accountable, Consulted and Informed
SWOT	Strength, Weaknesses, Opportunities, Threats
VRIN	Valuable, Rare, Inimitable, Non-substitutable

1. Introduction: Applying the strategic management process at purchase category level in order to achieve competitive advantage

Buying firms are increasingly adopting strategic management at the level of purchase categories in order to achieve sustainable competitive advantage through higher price savings, innovations and higher efficiencies¹. One way to secure and measure these competitive advantages is the derivation of a purchase category strategy for key categories. The core idea behind the concept of purchase category management is the possibility to form differentiated strategies with respect to diverse supply markets which are aligned with organizational targets to achieve long term competitive advantage². In order derive purchase category strategies category managers align firm level and functional level strategies at the level of purchase categories by applying the strategic management process³. However, past literature has not yet successfully integrated the strategic management process at the hierarchical level of purchase categories. Consequently, category managers have no consistent guideline for the derivation of a purchase category strategy within their organisation.

In recent years the body of literature on purchasing category strategy development has strongly increased, raising the need for empirical research in this area⁴. As a consequence, this master thesis analyses and combines literature on strategic management and purchase category management in order to come up with a category strategy development process that will be empirically tested in the form of a category strategy development maturity profile. Thereby this study concentrates on four main objectives. First, four stages of purchase category strategy development are described by integration of a strategic management process model at the level of purchase categories. Next to this, the paper introduces strategy tools that support managers in the strategy development process. Subsequently, the paper identifies four categories of performance benefits that result from purchase category strategy development. Finally, results from six qualitative interviews from different Western European industries are compared with purchase category management literature in order to confirm, reinforce or add findings to the existing body of research. Thus, this paper addresses three main research questions:

¹ See Hesping and Schiele (2016a), p. 101, 2016b), p. 474.

² See Hesping and Schiele (2015), p. 145.

³ See O'Brien (2015), pp. 81-83; Rendon (2005), pp. 9-10.

⁴ See Hesping and Schiele (2015), p. 147.

- RQ1: *“What process stages of strategic management should category managers consider in order to derive purchase category strategies?*
- RQ2: *“What are strategy tools that are applicable in the purchase category strategy development process?*
- RQ3: *“What are the benefits of purchase category strategy development in an organization?*

In order to answer the research questions qualitative interviews with purchasing personnel from six Western European organisations were conducted, resulting in six case studies. For the qualitative interviews, a semi-structured questionnaire and a maturity profile were developed based on an extensive literature review on strategic management and purchase category management. The literature review builds the theoretical foundation of this paper and provides a picture of the current state of the art of strategic management, purchasing category strategy development and related other concepts. In the methodological section the questionnaire design, respondent characteristics and interview procedures are discussed. Afterwards an introduction of the different companies of observation will be provided. Then, findings from the interviews are outlined and summarized in six case studies. The paper proceeds with a comparison of cases. Afterwards findings are compared to findings from literature, confirming and adding factors to the existing body of research. Finally, the paper provides a conclusion, practical recommendation for managers and discusses research contributions, limitations as well as future research directions.

2. Strategic Management

2.1 The Foundations of strategic management: Research on strategic management is still in its growth phase but definitions of core concepts are available

An analysis of the state of the art of strategic management reveals that the research field is still in its growth phase. Since the 1980s there has been growing interest in strategic management due to its contribution to organizational performance and competitiveness⁵. Figure 1 shows the number of journal articles and books on strategic management published between 1970 and 2017 based on a structured keyword search conducted via Scopus. The key word search has used a query to screen the abstract, title and keywords for the words “strategic management” or “strategisches management”. Furthermore, the query has been limited to the years 1970 until 2017, the subject area “Business, Management and Accounting”, the source type “Articles” and “Books”, and the language “English” and “German”. In sum the search result has included 4164 publications. Figure 1 indicates that the origins of strategic management have been before 1982. After 1982 the research field has experienced rapid growth⁶. Whereas between 1982-1985 there were 64 publications in total, between 2014-2017 the number has increased to 952 publications. The year 2017 includes the number of publications year-to-date as of 31 October 2017.

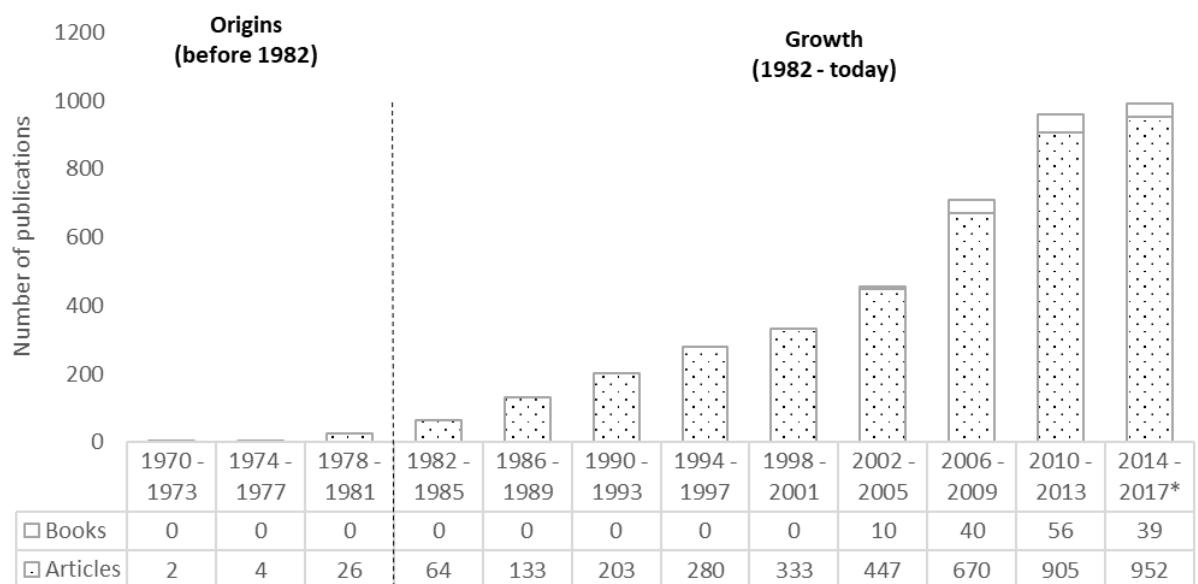


Figure 1 Number of publications on strategic management between 1970-2017 (N=4164)
Source: Based on Scopus

⁵ See Asdemir, Fernando, and Tripathy (2013), p. 111; Luoma (2015), p. 1098; Miller and Cardinal (1994), p. 1662; Spanos, Zaralis, and Lioukas (2004), p. 159; Yeung, Selen, Sum, and Huo (2006), p. 226.

⁶ Nerur, Rasheed, and Natarajan (2008), p. 320.

Since its origins the research field of strategic management has taken different research directions, different theories have been applied and researchers have reached growing consensus on fundamental concepts⁷. Among others, research has addressed external and internal views on macro-, meso- and micro-environments⁸. In addition, more than 72 different theories have been applied and tested within the discipline⁹. Frequently used theories in strategic management journals have been the resource based view, transaction cost economics, agency theory, institutional theory, upper echelon theory, resource dependency theory, contingency theory, social capital theory and stakeholder theory. While several researchers provide an in-depth discussion of these theories¹⁰, this paper proceeds with an elaboration on the definitions of the core concepts of the research field: the definitions of (1) strategic management, (2) the strategic management process and (3) strategy.

Despite a growing consensus on the concept of *strategic management* there is a large variety of definitions available. Table 1 provides examples of selected definitions of strategic management. These examples show that definitions of strategic management focus on different aspects such as a long-term focus on goals and objectives, a focus on internal and external environments, a focus on strategy formulation or implementation and a focus on enhancing performance (operational) versus achieving sustainable competitive advantage (strategic)¹¹. For instance, Nag et al. (2007) have developed an empirical and operational implicit definition of strategic management that concentrates on actions taken by general managers to increase the performance of a firm¹². As this definition is rather operative the research at hand uses the more strategic definition of Dess (2014) who state that “*Strategic management consists of the analyses, decisions, and actions an organization undertakes in order to create and sustain competitive advantages*”¹³.

⁷ See Furrer, Thomas, and Goussevskaia (2008), p. 3; Guerras-Martín, Madhog, and Montoro-Sánchez (2014), p. 71.

⁸ See Herrmann (2005), pp. 111-113; Hoskisson, Wan, Yiu, and Hitt (1999), p. 421; McKiernan (2006), p. 9; Phelan, Ferreira, and Salvador (2002), pp. 1161-1164; Ramos-Rodríguez and Ruíz-Navarro (2004), p. 981; Thomas, Wilson, and Leeds (2013), p. 1121.

⁹ See Kenworthy and Verbeke (2015), p. 180.

¹⁰ See Baker (1990), p. 593; Carpenter, Geletkanycz, and Sanders (2004), p. 772; Donaldson and Preston (1995), p. 65; Eisenhardt (1989), p. 59; Fama (1980), p. 289; Freeman (1994), p. 410; Grant (1996), p. 110; Hambrick and Mason (1984), p. 198; Jensen (2001), pp. 8-9; Jensen and Meckling (1976), p. 357; Mahoney and Pandian (1992), p. 364; March and Olsen (1983), p. 747; Medcof (2001), p. 1002; Nahapiet and Ghoshal (1998), p. 251; Peng, Sun, Pinkham, and Chen (2009), p. 63; Powell and Dent-Micallef (1997), p. 377; Shook, Adams, Ketchen Jr, and Craighead (2009), p. 4; Spender (1996), p. 48; Stuart and Podolny (1996), p. 23; Szulanski (1996), p. 28; Wernerfelt (1984), p. 171.

¹¹ See Chandler (1962), p. 6; Coulter (2012), p. 103; Harvey (1988), p. 6; Higgins and Vincze (1993), p. 5; Hunger and Wheelen (2010), p. 5; Nag, Hambrick, and Chen (2007), p. 942; Quinn (1980), p. 9.

¹² See Nag et al. (2007), p. 944.

¹³ Dess, Lumpkin, and Eisner (2014), p. 7.

Definition of strategic management	Author
<i>"The determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals."</i>	Chandler (1962), p. 6
<i>"Strategic management entails the analysis of internal and external environments of firms to maximize the utilization of resources in relation to objectives."</i>	Bracker (1980), p. 221
<i>"The field of strategic management deals with the major intended and emergent initiatives taken by general managers on behalf of owners, involving utilization of resources to enhance the performance of firms in their external environments."</i>	Nag et al. (2007), p. 944
<i>"Strategic management is the process of assessing the corporation and its environment in order to meet the long-term objectives of the organization."</i>	Alkhafaji and Nelson (2013), p. 18
<i>"Strategic management consists of the analyses, decisions, and actions an organization undertakes in order to create and sustain competitive advantages."</i>	Dess et al. (2014), p. 7

Table 1 Different definitions of strategic management

The *strategic management process* is a series of process steps individuals need to consider in order manage strategies in their organization. The process originates in the work of Fayol (1949) who described six process steps that need to be considered in management: “*To manage is to forecast and to plan, to organize, to command, to coordinate and to control.*”¹⁴ Thereafter a number of similar process models have been developed that differ in the number of stages. For example, David and David (2016) developed a three-stage process model including the stages strategy formulation, implementation and evaluation and describe the strategic management process as a systematic process in order to make decisions in an organization¹⁵. Furthermore, Carr and Smeltzer (1997) state that the “[...] *strategic management process refers to the process of setting goals, establishing strategies, analyzing the environment, evaluating strategies, implementing and controlling strategies.*”¹⁶ In other words, the goal of strategic management processes is to provide individuals with a guideline for the analysis, formulation, implementation and evaluation of strategies in their organization¹⁷. Furthermore, the process is applied by managers at all organizational levels. The input to the process are environmental factors that affect an organizations overall performance. Conversely, the output of the process is a strategy that defines how the organization addresses environmental forces in order to achieve and maintain competitive advantage.

¹⁴ Fayol (1949), p. 19.

¹⁵ See David and David (2016), p. 40.

¹⁶ Carr and Smeltzer (1997), p. 200.

¹⁷ See Clark (1997), p. 420.

Mainardes et al. (2014) provide a literature review on 38 different definitions of *strategy* and conclude that the term has several meanings¹⁸. Every definition has its limitations and focuses on different aspects. For instance, the majority of definitions differs as some refer to goals and objectives, while others refer to tactics, programs or policies. This research concentrates on the definition of Zheng, Yang, and McLean (2010) who define strategy as a long-term plan that aims to maintain and enhance a firm's competitive performance in an uncertain environment¹⁹. A strategy not only describes the goals an organization wants to achieve but also specifies actions and resources needed to achieve these goals. Strategy depends upon the capability to anticipate future consequences of present activities. In other words, firms that are prepared to anticipate future environmental changes can secure their competitive performance. Many researchers have been investigating a positive relationship between strategic planning and firm performance²⁰. For example, Luoma (2015) in their empirical study show that the application of hybrid strategies in an organization can lead to superior firm performance²¹.

Strategy is a hierarchical concept which is inevitably linked to the hierarchy of structure and purpose. On the one hand, strategies are applied at different hierarchical levels of a firm: corporate level, business level, functional level and tactical level²². On the other hand, strategy is translated onto different levels of purpose: vision, mission, goals and objectives²³. Strategic actions on both hierarchical elements differ in terms of explicitness and the time frame in which they are implemented. Empirical research has shown that strategic alignment between the different hierarchical levels of an organization contributes to the overall organizational performance²⁴. Strategic alignment can be achieved through linking organizational strategies across the different hierarchies of the organization. Figure 2 is an illustration of the hierarchy of structure within organizations. The research at hand concentrates on managing strategies at the hierarchical level of purchase categories. The next section will introduce a strategic management process model, which in the subsequent chapter will be integrated at the level of purchase categories in form of a maturity profile.

¹⁸ See Mainardes, Ferreira, and Raposo (2014), p. 46.

¹⁹ See Bracker (1980), p. 220; Casadesus-Masanell and Ricart (2010), p. 203; Prahalad and Hamel (1994), p. 10; Zheng, Yang, and McLean (2010), p. 765.

²⁰ See Asdemir et al. (2013), p. 111; Luoma (2015), p. 1098; Vorhies, Morgan, and Autry (2009), p. 1326.

²¹ See Luoma (2015), p. 1083.

²² See González-Benito (2007), p. 905; Whittington (2006), p. 619.

²³ See Johnson, Scholes, and Whittington (2010), p. 8.

²⁴ See Baier, Hartmann, and Moser (2008), p. 46.

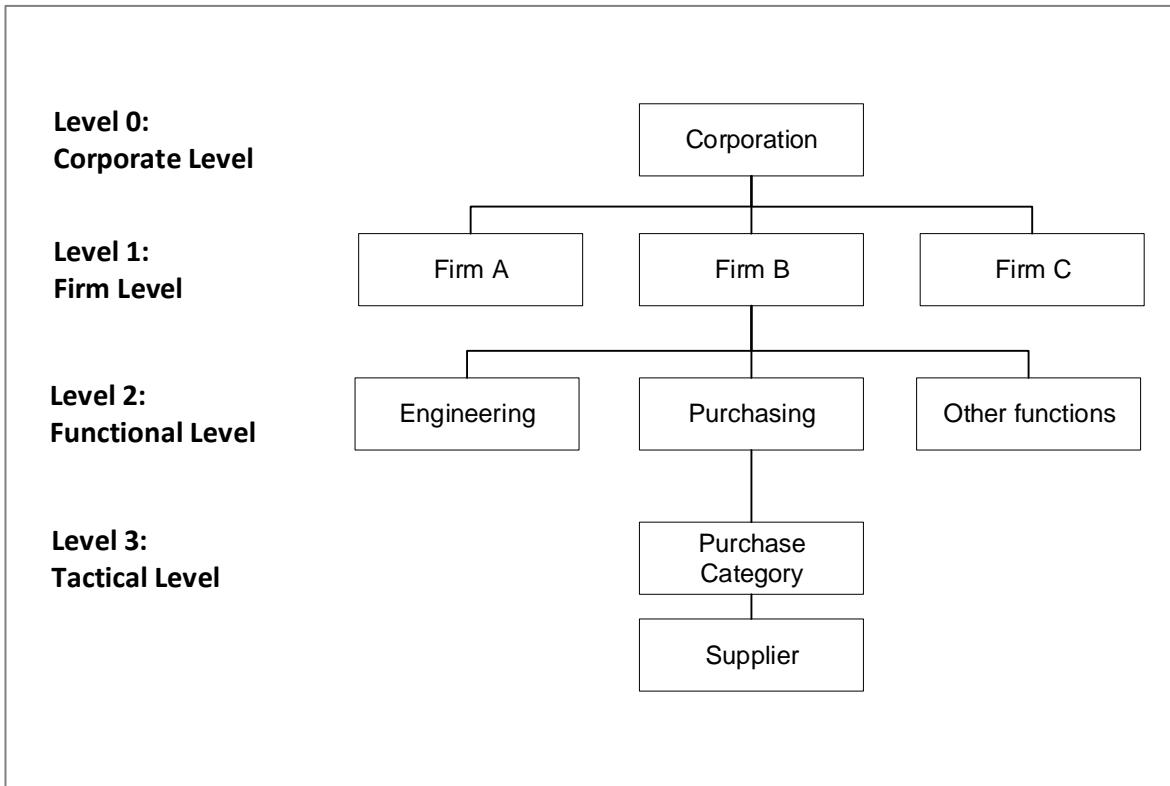


Figure 2 The hierarchy of strategies in purchasing

Source: Based on Hesping and Schiele (2015)²⁵

2.2 The Strategic Management Process: Introducing a four-stage strategy development framework for application at purchase category level

Strategic management process models have been widely adopted in strategic management literature to support practitioners in the strategy development process²⁶. To be more precise, process models support managers to plan, organize, implement and control the goals and objectives of their organization. Every process model includes three components (1) input, (2) process and (3) output²⁷. Environmental variables are an input-factor to the process whereas a strategy itself is an output of the process. On the one hand, the above definition based on contingency theory assumes that a firm's strategy is contingent upon its environment²⁸. On the other hand, based on the planning school it assumes that firms are able to anticipate environmental changes and adapt their strategy in order to enhance their future competitive performance within their ecosystem.²⁹

²⁵ See Hesping and Schiele (2015), p. 139.

²⁶ See Chakravarthy (1982), p. 43; Hill, Jones, and Schilling (2014), p. 13; Rothaermel (2012), p. 20.

²⁷ See Ginsberg and Venkatraman (1985), p. 423.

²⁸ See Pennings (1975), p. 394; Spina, Caniato, Luzzini, and Ronchi (2016), p. 22.

²⁹ See Ben-Menahem, Kwee, Volberda, and Van Den Bosch (2013), p. 220.

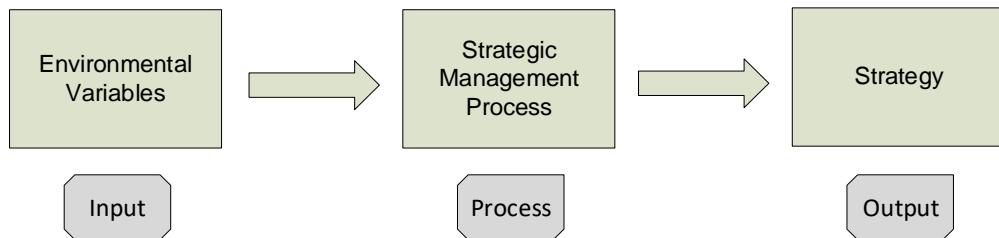


Figure 3 Contingency theory-based strategic management process based on
Source: Own elaboration based on Ginsberg and Venkatraman (1985)³⁰

The present master thesis conducted an analysis of eleven strategic management process models from academic literature and integrated them into a four-dimensional process model of strategic management. The process models included in the analysis have been derived from strategic management books and academic journals published between 1973 and 2016. The models mainly differed in the number of process stages and the degree of detail, explicitness and complexity. For the purpose of this study the eleven models have been integrated into a more comprehensive process model for strategy development with four stages: (1) *strategy planning*; (2) *strategy organisation*; (3) *strategy implementation* and (4) *strategy controlling*. Table 2 provides a detailed overview which stages from the model presented in this paper have been addressed by the eleven process models from the analysis.

Scope	Strategic management												
No. of stages	9	3	4	4	2	5	4	4	3	2	3	4	
<i>Stages addressed</i>													
<i>Strategy Planning</i>		x	x	x		x	x	x	x			x	
<i>Strategy Organization</i>	x	x	x	x	x	x	x	x	x	x	x	x	x
<i>Strategy Implementation</i>	x	x	x	x	x	x	x	x	x	x	x	x	x
<i>Strategy Evaluation</i>	x		x	x			x	x			x	x	

Table 2 A comparison of eleven strategic management process models³¹.

³⁰ See Ginsberg and Venkatraman (1985), p. 424.

³¹ See Alkhafaji and Nelson (2013), p. 7; Clark (1997), p. 420; Cohen and Cyert (1973), p. 349; Coulter (2012), p. 103; David and David (2016), p. 47; Dess et al. (2014), p. 12; Hill et al. (2014), p. 13; Hitt, Ireland, and

There have been major similarities between the different process models. The majority of models reviewed have been described as formal, continuous, on-going and dynamic feedback processes that have neither a beginning nor an end³². On the one hand, these models guide managers to continuously evaluate the performance of their existing strategy against environmental changes. This in turn allows managers to take corrective actions in case of deviations. On the other hand, managers can define alternative courses of action in case of anticipated environmental changes. Furthermore, the majority of models have been categorized as descriptive, prescriptive or explanatory³³. Thus, they allow managers to make objective decisions, evaluate alternative courses of actions based on a set of certain guidelines and apply rational decision-making. In other words, these models represent a useful guideline for managers develop a strategy that can lead to competitive advantage within their firms' environment. The paper proceeds with an elaboration on every process stage.

Strategic planning involves the analysis of an organizations environment to assess whether environmental factors have an impact on performance and the company can continue with the given course of actions. The majority of authors agree that environmental analysis involves an analysis of the external, competitive and internal environment of an organization³⁴. The external environment of a company includes the macro- and meso-level. The former considers political, economic, social, technological, environmental and legal forces³⁵. The latter addresses stakeholders in the direct environment of a firm including competitors, suppliers, retailers and customers³⁶. The internal environment of a company includes the micro-environment which addresses among others internal strategies, structures, processes, resources and strategic capabilities³⁷. Strategic planning is a crucial step as it reveals whether a company can maintain its strategic activities or needs to adapt its strategy. Only companies with a high level of maturity and absorptive capacity are assumed to generate competitive advantage from strategic planning activities³⁸. Absorptive capacity can be defined as “[...] *the firm's ability to identify, assimilate, and exploit knowledge from the environment*”³⁹.

Hoskisson (2012), p. 5; Rothaermel (2012), p. 20; Thompson and Martin (2010), p. 36; Wheelen and Hunger (2012), p. 15.

³² See Cohen and Cyert (1973), pp. 349-350; Theriou (2015), p. 14.

³³ See Furrer et al. (2008), p. 4.

³⁴ See Dess et al. (2014), p. 36.

³⁵ See Cohen and Cyert (1973), p. 353; Jarzabkowski and Paul Spee (2009), p. 73.

³⁶ See Jarzabkowski and Paul Spee (2009), p. 73.

³⁷ See David and David (2016), p. 191; Dess et al. (2014), p. 82.

³⁸ See Lane, Koka, and Pathak (2006), p. 833; Lewin, Massini, and Peeters (2011), p. 82; Schiele (2007), p. 281

³⁹ Cohen and Levinthal (1989), p. 569.

Strategy organisation can be described as the conception and alignment of a strategic plan. Strategy conception can be top down in form of intended strategies or bottom up in the form of emergent strategies⁴⁰. On the one hand, strategy organisation includes the definition of the desired future state. Based on environmental changes and the current performance the company may decide to reformulate its strategy in terms of its policies, vision, mission, targets and objectives⁴¹. On the other hand, strategy organization includes the definition of strategic activities to achieve the desired future state. Strategic activities for example address in detail how resources, structures and processes need to be aligned in order to achieve the desired future state⁴². Strategy organization is applied at all hierarchical organizational levels including the corporate, functional or tactical level. The result of strategy organisation is a detailed plan that specifies the goals and objectives as well as strategic actions that need to be carried out in the strategy implementation process stage to reach those goals.

Strategy implementation regards the implementation and execution of the strategic plan developed in the former phases of the strategic management process. Strategy implementation is often described as the most challenging process stage and researchers do not commonly agree on the activities that need to be considered in this stage⁴³. For example, David and David (2016) state that strategy implementation involves “[...] developing a strategy-supportive culture, creating an effective organizational structure, redirecting marketing efforts, preparing budgets, developing and using information systems, and linking employee compensation to organizational performance.”⁴⁴ In contrast Dess et al. (2014) provide a much broader definition with a focus on organizational design, strategic controls and leadership⁴⁵. Nevertheless, the majority of authors agree that strategy implementation concerns the activities strategy communication, structural alignment and resource alignment to achieve the desired future state and to maintain and improve the competitive performance of the company⁴⁶. In order to ensure the successful implementation of strategies, controlling and monitoring procedures can be implemented during the whole process.

⁴⁰ See Alkhafaji and Nelson (2013), p. 19; Mintzberg and Waters (1985), p. 258.

⁴¹ See Cohen and Cyert (1973), p. 355; Dess et al. (2014), p. 285.

⁴² See Alkhafaji and Nelson (2013), p. 33.

⁴³ See Alkhafaji and Nelson (2013), p. 104.

⁴⁴ David and David (2016), p. 40.

⁴⁵ See Dess et al. (2014), p. 13.

⁴⁶ See Alkhafaji and Nelson (2013), p. 33; Cohen and Cyert (1973), p. 363.

Strategy controlling requires the comparison of the predicted results from the strategy plan with the actual results. Strategy controlling is concerned with the implementation of control mechanisms, performance reviewing and taking corrective actions⁴⁷. Control mechanisms are means to control the operation of strategic activities⁴⁸. Next to this, performance reviewing is related to monitoring of performance results of strategic activities. Performance monitoring allows an assessment on whether the desired future state has been achieved or not. In the event that control mechanisms and performance reviews indicate deviations from the strategy plan the final step is the definition and implementation of corrective actions in order to ensure that the desired future state will be achieved.

For all process stages described above literature has developed strategy tools that provide practitioners support for decision-making during all stages of the strategic management process. The next section elaborates on strategy-as-practice research, the overall definition and function of strategy tools as well as the dyadic dissociation process used to integrate knowledge from theories into frameworks.

2.3 Strategy tools in strategic management: Integrating knowledge from theories into models, frameworks or methods

The use of strategy tools has gained a lot of attention recently both in practice and in academics. Researchers and consultants have developed a large portfolio of strategy tools that are applied in today's organizations and business schools. The rising attention is for example confirmed by the multiyear Bain & Company survey developed to collect data about the usage of management tools which included more than 7,000 responses in 2005⁴⁹. Frequently cited examples of strategy tools in theory and practice are Five Forces, VRIN or the balanced score card⁵⁰. Research on strategy tools has been integrated into a separate research agenda called strategy-as-practice-research⁵¹. This research agenda discusses perspectives on the practical adoption of strategy and strategy tools including a diverse set of studies on strategy tool usage in practice and the impact of the adoption strategy tools on performance⁵².

⁴⁷ See Cohen and Cyert (1973), p. 364.

⁴⁸ See Alkhafaji and Nelson (2013), p. 33.

⁴⁹ See Rigby and Bilodeau (2005), p. 4.

⁵⁰ See Barney (1991), p. 112; Kaplan and Norton (1992), p. 67; Porter (1980), p. 4.

⁵¹ See Berisha Qehaja, Kutllovci, and Shiroka Pula (2017), p. 89; Jarzabkowski, Balogun, and Seidl (2007), p. 5; Knott (2006), p. 1090; Moisander and Stenfors (2009), p. 227; Vaara and Whittington (2012), p. 285.

⁵² See Aldehayyat and Anchor (2008), p. 281; Gunn and Williams (2007), p. 201; Paroutis, Franco, and Papadopoulos (2015), p. 49; Rigby and Bilodeau (2005), p. 4; Tapinos, Dyson, and Meadows (2011), p. 897.

Clark (1997) define strategy tools as “numerous techniques, tools, methods, frameworks, approaches and methodologies which are available to support decision making within strategic management”⁵³. Strategy tools provide practitioners support during all stages of the strategic management process and support them in making “[...] strategic decisions that influence both the long and short-term objectives of an organization.”⁵⁴ Thereby, strategy tools contribute to strategy creation and execute different functions. First, they provide a structure for analysis as they propose user’s different elements that need to be considered during the process of analysis. Second, in a team setting strategy tools encourage communication and the exchange of ideas and therefore contribute to shared meanings and understandings between different individuals. Third, strategy tools are means of generating, structuring and visualizing information and knowledge collected during the analysis which simplifies the subsequent presentation and communication. Finally, tools assist with coordinating and controlling actives that result from the analysis process.

In general strategy tools such as models, frameworks or methods simplify knowledge from theories into knowledge artifacts⁵⁵. Therefore, knowledge artifacts have the potential to bridge the gap between theory and practice as they integrate knowledge from theories into actionable strategy tools⁵⁶. According to Jarzabkowski and Wilson (2006) the development of actionable strategy tools from theory requires a dyadic process of dissociation⁵⁷. The first step in the process involves the simplification of broader theories into a strategy tool consisting of single concepts, variables and relationships. The second step includes the adaption of strategy tools and theoretical assumptions for the use in practice. An undesirable side effect of the second step of the dyadic dissociation process is that strategy tools are often adopted by practitioners without any consideration of their theoretical origins. This can have an impact on their overall effectiveness and therefore managers are advised to pay caution in what contexts strategy tools are used in.

In the next chapter four groups of strategy tools in purchase category management are introduced. Before the next section introduces a taxonomy of strategic management processes in purchasing and contributes to an understanding of the focus and context of this research.

⁵³ Clark (1997), p. 417.

⁵⁴ Jarzabkowski and Wilson (2006), p. 348.

⁵⁵ See Jarzabkowski and Kaplan (2015), p. 538; Jarzabkowski and Wilson (2006), p. 348.

⁵⁶ See Van de Ven and Johnson (2006), p. 803.

⁵⁷ See Jarzabkowski and Wilson (2006), p. 362.

2.4 The taxonomy of Strategic Management Processes in purchasing: Increasing performance at firm, purchasing, category and supplier level

The taxonomy of strategic management processes shows that the strategic management process can be applied at all organizational levels in order to derive strategies that affect performance. Figure 4 illustrates the taxonomy of strategic management processes in purchasing which logic is built on the hierarchy of strategies developed by Hesping and Schiele (2015)⁵⁸. The taxonomy of strategic management processes in purchasing shows that the strategic management process can be applied by managers at firm, functional, category and supplier level. At every level the input to the strategic management process are changing environmental factors. The process analyses changing environmental factors and transforms them into requirements for the corresponding strategy dimension. Thereby at every level managers can apply strategy tools that aim to support the development of a competitive strategy⁵⁹. The output of the process at every level are strategies that are aimed to positively affect performance. For most organizations a fundamental task is the alignment of strategies across the different hierarchical levels and functions. In other words, strategies at firm, purchasing, category and supplier level need to be linked to eliminate conflicting priorities⁶⁰.

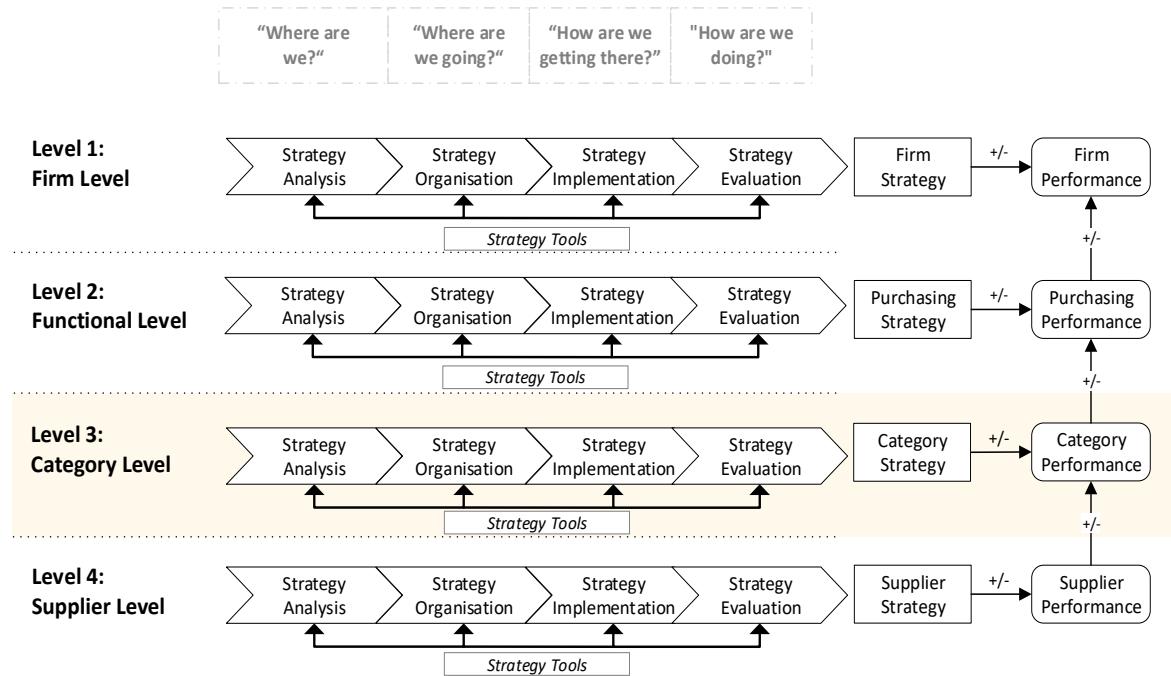


Figure 4 The taxonomy of strategic management processes based on own elaboration
Source: Own elaboration based on Hesping and Schiele (2015)

⁵⁸ See Hesping and Schiele (2015), p. 139.

⁵⁹ See Jarzabkowski and Kaplan (2015), p. 224.

⁶⁰ See Rodríguez-Escobar and González-Benito (2017), p. 1182.

At *firm level* the strategic management process can be applied to develop a firm strategy that positively affects firm performance. The firm strategy is most often developed by chief executive officers and describes the overall purpose of the business on the long run and how it positions itself in the market in order increase its competitive performance. Firm strategies are formulated in terms of policies, aspirations, mission statements and vision statements⁶¹. Literature has shown that a clearly formulated firm strategy can contribute to firm performance. Empirical research found that firm strategies can have a positive impact on market share, return on assets, return on sales, cash flows and profitability⁶². For example, Asdemir et al. (2013) in a study of publicly traded firms investigate that the focus on cost or differentiation strategies can lead to significant higher abnormal returns⁶³. Furthermore, Vorhies et al. (2009) in their study of firms from the motor-carrier industry find that differentiation, cost and product-market strategies can significantly improve a company's cash flows⁶⁴.

At *functional/purchasing* level the strategic management process can be applied to establish a purchasing strategy that positively affects purchasing performance. The purchasing strategy is most often developed by chief purchasing officers and describes how purchasing adds value to the business strategy. In addition, the purchasing strategy is usually formulated in general guidelines or programs based on competitive priorities and generic competitive objectives⁶⁵. For instance, general guidelines describe how purchasing contributes to competitive priorities such as quality, flexibility, innovation, time, sustainability and cost⁶⁶. Furthermore, programs such as risk-management programs describe how to mitigate risks. Thereby empirical research found that purchasing strategies can have a significant impact on financial⁶⁷, innovation⁶⁸ and environmental performance⁶⁹. For example, Chen et al (2004) in a study of 221 United States manufacturing firms found support for strong links between strategic purchasing and financial performance of the buying firm⁷⁰.

⁶¹ See Johnson et al. (2010), pp. 121-123; Nollet, Ponce, and Campbell (2005), p. 135.

⁶² See Luoma (2015), p. 1098; Miller and Cardinal (1994), p. 1662. Spanos et al. (2004), p. 159. Yeung et al. (2006), p. 226.

⁶³ See Asdemir et al. (2013), p. 111.

⁶⁴ See Vorhies et al. (2009), p. 1326.

⁶⁵ See González-Benito (2010), p. 775; Hespingle and Schiele (2015), p. 148; Watts, Kim, and Hahn (1995), p. 7.

⁶⁶ See Amann and Eßig (2011), p. 8; Spina, Caniato, Luzzini, and Ronchi (2013), p. 1209.

⁶⁷ See Ateş (2014), p. 31; Cousins and Lawson (2007), p. 127; González-Benito (2007), p. 912.

⁶⁸ See Handfield, Ragatz, Petersen, and Monczka (1999), p. 80; Van Echtelt, Wynstra, Van Weele, and Duysters (2008), p. 180.

⁶⁹ See Bowen, Cousins, Lamming, and Farukt (2001), p. 185.

⁷⁰ See Chen, Paulraj, and Lado (2004), p. 515.

At *category level* the strategic management process can be applied to derive a purchase category strategy that positively affects category performance. Category strategies are ideally developed by category managers and describe how a purchase category and supplier portfolio add value to the overarching purchasing strategy⁷¹. The category strategy is ordinarily formulated in category roadmaps with detailed targets and objectives considering for example cost savings, innovation and other performance goals. Hesping and Schiele (2016b) argue that for the achievement of these performance goals category managers apply sourcing levers that are described as a tailored set of tactics for every purchase category. Empirical literature supports that strategic management of purchase categories can contribute to the overall performance of a firm⁷². For instance, Cousins and Lawson (2007) in their study with 142 manufacturing firms based in the United Kingdom found strong support for a positive significant link between a leverage sourcing strategy and business outcomes⁷³.

At *supplier level* the strategic management process can be applied to derive a supplier strategy that positively affect supplier performance. Supplier strategies are ideally developed by supplier managers and describe how suppliers add value to purchase categories. The supplier strategy is frequently formulated in the form of supplier roadmaps, which summarize a detailed set of targets and objectives to increase performance. Empirical research supports that supplier strategies can have a significant impact on firm performance. For example, in a study conducted at 232 manufacturing firms in Australia Prajogo et. al (2012) found positive relationships between different supplier management practices on performance measures such as quality, delivery, flexibility and cost⁷⁴.

This master thesis focuses on the third level of the taxonomy model (See Figure 4) and therefore the next chapter is structured as follows: First, the foundations of purchase category management are discussed. Subsequently, four strategic management process stages are integrated at category level into a purchase category strategy development maturity profile. Afterwards, four different groups of strategy tools are derived that contribute to strategy development. The chapter concludes with the identification of performance benefits that result from category strategy development.

⁷¹ See Ahtonen and Virolainen (2009), p. 264; Baier (2008), p. 171; Baier et al. (2008), p. 48; Nollet et al. (2005), pp. 135-136.

⁷² See Chen et al. (2004), p. 518; Cousins and Lawson (2007), p. 133; Ellram, Zsidisin, Siferd, and Stanly (2002), p. 14; Hesping and Schiele (2016a), p. 101; Mol (2003), pp. 47-48.

⁷³ See Cousins and Lawson (2007), p. 132.

⁷⁴ See Prajogo, Chowdhury, Yeung, and Cheng (2012), p. 127.

3. Strategic Management at Category Level

3.1 *The Foundations of purchase category management: managing supply market strategies in order to maintain and achieve sustainable competitive advantage*

From a historical perspective category management originates from sales and marketing and has been used to segment products into groups that constitute customer markets⁷⁵. The concept has first been applied in purchasing literature in the 1980s in form of the purchasing portfolio matrix that categorizes purchasing spend into four different categories according to supply risk and profit impact⁷⁶. Despite the high interest and empirical support of the purchasing portfolio matrix in literature purchase category management only recently has received increased attention in the scientific community⁷⁷. Consequently, there is little knowledge of purchase category strategies in existing literature⁷⁸. In practice, the concept has gained a higher level of attention⁷⁹. For example, Johnson et al. (2014) in their longitudinal study including North-American purchase organizations report an increase of 48 percent for purchase category teams in organizations between 1995 and 2011⁸⁰.

Hence there are only a few definitions for category management available in academic literature. Table 3 provides an overview of selected definitions. For example, O'Brien (2015) defines purchase category management as “*The practice of segmenting the main areas of organizational spend on bought-in goods and services into discrete groups of products and services according to the function of those goods or services and, most importantly, to mirror how individual marketplaces are organized.*”⁸¹ Similarly, Fröhlich and Lingohr (2010) claim that category management is about categorizing the demand of a company into different categories of purchasing spend that are centrally managed by category managers⁸². According to Rüderich, Meier and Kalbfuß (2016) the goal of managing purchase categories that constitute supply markets is the satisfaction of internal customers, the reduction of process and procurement costs as well as the generation of significant price savings.⁸³

⁷⁵ See Dhar, Hoch, and Kumar (2001), p. 166; Grajczyk (2015), p. 30.

⁷⁶ See Kraljic (1983), p. 113.

⁷⁷ See Cox (2015), p. 721; Gelderman and Semeijn (2006), p. 211; Gelderman and van Weele (2005), p. 20; Gelderman and Weele (2002), p. 33; Hesping and Schiele (2015), p. 145, 2016a), p. 101; Trautmann, Bals, and Hartmann (2009), p. 195.

⁷⁸ See Ak, Wynstra, and Raaij (2015), p. 205; Hesping and Schiele (2015), p. 147.

⁷⁹ See Boutellier and Zagler (2000), p. 7.

⁸⁰ See Johnson, Shafiq, Awaysheh, and Leenders (2014), p. 131.

⁸¹ O'Brien (2015), p. 31.

⁸² See Fröhlich and Lingohr (2010), p. 63.

⁸³ See Rüderich, Kalbfuß, and Weißen (2016), p. 3.

Definition	Author
<i>“The practice of segmenting the main areas of organizational spend on bought-in goods and services into discrete groups of products and services according to the function of those goods or services and, most importantly, to mirror how individual marketplaces are organized.”</i>	O’Brien (2015), p. 31
<i>“In category management the demand of the whole company is incorporated in purchase categories and the various sourcing objects of single purchase categories are centrally managed by category managers.”</i>	Fröhlich and Lingohr (2010), p. 63
<i>“A purchase category – also known as spend category – is defined as group of coherent product and services bought from supply markets which are purchased to meet the demands of internal and external customers”</i>	van Weele and Eßig (2016), p. 296
<i>„Commodity groups are general categories of purchased items, including materials or services of a similar type provided by the same group of suppliers.”</i>	Schiele, Horn, and Vos (2011), p. 322.

Table 3 Definitions of purchase categories and purchase category management

Schiele et al. (2011) define a purchase category or commodity group as “[...] general categories of purchased items, including materials or services of a similar type provided by the same group of suppliers.”⁸⁴ In other words, a purchase category is an area of organizational spend that summarizes a group of materials or services with similar function that is bought at suppliers from the same supply market⁸⁵. Thus, the group of materials and services purchased from the same group of suppliers mirrors a single supply market⁸⁶. This is in line with the definition of Van Weele and Eßig (2016) who define a purchase category as a group of distinct products and services that are bought on supply markets to meet the demand of internal and external customers⁸⁷. Due to their similar functions these materials and services are substitutable and can be potentially consolidated. According to Bouteiller and Zagler (2000) purchase categories are managed through strategic oriented category managers⁸⁸. Thereby, the core idea behind the concept of purchase categories and purchase category management is the possibility to implement differentiated strategies for diverse areas of organizational spend in order to achieve long term competitive advantage.

⁸⁴ Schiele, Horn, and Vos (2011), p. 322.

⁸⁵ See Ak et al. (2015), p. 205; O’Brien (2015), p. 31; Schiele, Horn, et al. (2011), p. 322.

⁸⁶ See Schiele (2007), p. 279.

⁸⁷ van Weele and Eßig (2016), p. 296

⁸⁸ See Bouteiller and Zagler (2000), p. 7; O’Brien (2015), p. 383.

The need for the development of differentiated purchase category strategies results from the growing diversity of goals and objectives a single organization is pursuing in different supply markets⁸⁹. The growing diversity of goals and objectives lead to a shift from a one-dimensional view towards purchasing strategy to a multi-dimensional view. One-dimensional views have described an overarching purchasing strategy that is implemented in an organization. These definitions undermine the existence of a single functional purchasing strategy that is fully integrated into the overall firm strategy⁹⁰. In contrast multi-dimensional views consider a multitude of different strategic dimensions for purchasing strategies⁹¹. Researchers following the view of multidimensionality claim that purchasing strategies are formulated at more micro levels of the organization⁹².

In order to address the diversity of goals and objectives of different supply markets purchase category strategies focus on competitive priorities. For example, while innovation and quality might be of concern when purchasing material in the category of sensors there is a focus on cost when it comes to purchasing standard materials such as toilet paper. Research on purchasing strategies in the past has mainly focused on six different types of competitive priorities: cost, time, quality, flexibility, innovation and sustainability⁹³. In more detail, Spina et al. (2013) conducted an extensive literature review of 461 articles from Purchasing and Supply Management related journals between 2002 and 2010 and found that these papers have mainly addressed three different competitive priorities: cost (58% of all articles), innovation (25% of all articles)⁹⁴ and quality (24% of all articles).

After a brief discussion on the foundations of purchase category management the next section integrates the strategic management process model developed in the former sections into a purchase category strategy development maturity assessment framework in order to address the first research question of this master thesis.

⁸⁹ See Ak et al. (2015), p. 205; Cousins, Lamming, Lawson, and Squire (2008), p. 265; Gelderman and Van Weele (2003), p. 207; Terpend, Krause, and Dooley (2011), p. 73.

⁹⁰ See Carr and Smeltzer (1997), p. 201; Cousins et al. (2008), p. 13; Moser (2007), p. 56; Reck and Long (1988), p. 2.

⁹¹ See Eßig and Wagner (2003), p. 287; Harland, Lamming, and Cousins (1999), p. 662; Hesping and Schiele (2013), p. 60.

⁹² See Ak et al. (2015), p. 205; Hesping and Schiele (2015), p. 138; Monczka and Markham (2007), p. 26.

⁹³ See David, Hwang, Pei, and Reneau (2002), p. 867; Spina et al. (2013), p. 1210, 2016), p. 29; Terpend et al. (2011), p. 74.

⁹⁴ See Spina et al. (2013), p. 1209.

3.2 The Strategic Management Process at purchase category level: developing a four-stage purchase category strategy development maturity profile

Although strategic management process models have been widely adopted at business and functional level there is a scarcity of research on the adoption of these models at the level of purchase categories. As a consequence, category managers have no consistent guideline on how to create, implement and monitor purchase category strategies in their organization. Only a few sources are describing process models on the derivation of strategies at the category level. For example, Rendon (2005) developed a commodity strategic sourcing process consisting out of five stages: (1) *profile commodity*, (2) *conduct supply market analysis*, (3) *develop commodity strategy*, (4) *issue RFX & negotiate* and (5) *implement & manage performance*⁹⁵. Next to this O'Brien (2015) introduced the *5i Category Management Process* consisting out of the stages (1) *initiation*, (2) *insight*, (3) *innovation*, (4) *implementation* and (5) *improvement* for the development of category strategies⁹⁶. However, both models have been developed for practical application and lack any scientific and empirical substance as both authors failed to link their process models to previous literature.

Therefore, the strategic management process models described in the previous chapter will be integrated at purchase category level in order come up with a theory-based more comprehensive purchase category strategy development process model in form of a maturity profile. On the one hand the maturity profile developed in this paper provides a framework for category managers to assess the maturity of their organizations category strategy development activities. On the other hand, it provides guidance to managers on how to increase their level of professionalism for purchase category strategy development in order to develop superior purchase category strategies that lead to increased performance levels. The purchase category strategy development maturity profile has been developed based on an extensive literature review on strategic management process models and former maturity models including the empirically well-tested five-dimensional management-based purchasing maturity profile developed by Schiele (2007)⁹⁷. But in contrast to previous maturity models the paper at hand represents the first maturity profile that has been developed for application at the level of purchase categories⁹⁸.

⁹⁵ See Rendon (2005), pp. 9-10.

⁹⁶ See O'Brien (2015), pp. 81-83.

⁹⁷ See Schiele (2007), pp. 284-291; Úbeda, Alsua, and Carrasco (2015), p. 184.

⁹⁸ See Schiele (2007), pp. 284-291.

The category strategy development maturity model will address four process stages of strategic management. The four stages have been derived in the previous chapter based on an integration of eleven different process models from strategic management literature⁹⁹. According to Schiele (2007) a “[...] maturity model describes several-auditable-stages an organisation is expected to go through in its quest for greater sophistication”¹⁰⁰. As a consequence, the strategic management process stages will be used to structure the dimensions of the maturity profile and form a comprehensive auditable maturity assessment for category strategy development in practice. The strategic management process approach to category management describes category strategy development maturity by integrating the four stages (1) *strategy planning*, (2) *strategy organisation*, (3) *strategy implementation* and (4) *strategy controlling*. Thereby category managers are expected to go through every of the four process stages in order to achieve a higher level of sophistication for category strategy development.

1. *Strategy planning*: This step aims at gathering information from the external, internal and competitive environment¹⁰¹. The focus of purchase category strategy planning is to understand the needs for a particular purchase category and identify environmental factors that can affect a purchase categories performance. For external, internal and competitive analysis the maturity profile adopted in this research builds on four dimensions as described by Schiele (2007) and assesses purchase category strategy planning based on several items anticipated with: (SP1) *demand planning*, (SP2) *pooling planning*, (SP3) *environment scan*, (SP4) *innovation planning*¹⁰².
2. *Strategy organisation*: The information gathered during strategy planning will be used to assess whether the company needs to reformulate the purchase category strategy. Therefore, strategy organization includes the development of strategies in order to align structures, resources and processes according to environmental needs. The strategy dimension has been for example in the focus of the maturity model of Úbeda et al. (2015) who addressed strategy involvement, category strategies, make or buy and supplier strategies¹⁰³. Furthermore, organisational structure, organizational resources and processes have been part of the maturity model of Schiele (2007)¹⁰⁴.

⁹⁹ See Coulter (2012), p. 103; Thompson and Martin (2010), p. 36; Wheelen and Hunger (2012), p. 15.

¹⁰⁰ Schiele (2007), p. 274.

¹⁰¹ See David and David (2016), p. 47; O'Brien (2015), p. 187; Rendon (2005), p. 14.

¹⁰² See Schiele (2007), pp. 284-291.

¹⁰³ See Úbeda et al. (2015), p. 184.

¹⁰⁴ See Schiele (2007), pp. 284-291.

The maturity profile used for this research builds on both maturity models and will assess purchase category strategy organization based on several items described by (SO1) *alignment of structures and mandates*, (SO2) *strategic plan conception at category level*, (SO3) *strategic plan conception at supplier level* (SO4) *strategic plan alignment with other functions* and (SO5) *strategic plan integration*.

3. *Strategy implementation:* The implementation of a strategic plan is crucial to implement the purchase category strategy developed in the former two process steps. The purchase category strategy plan in this phase is communicated and shared with all relevant stakeholders in the organisation. The dimensions for alignment of human resources as well as strategy communication have also been covered by previous maturity models. A critical part of the implementation of a category strategy is related to the alignment of resources and structures in order achieve the desired targets. Therefore, the maturity profile assesses strategy implementation based on (SI1) *people alignment* (SI2) *structural alignment* and (SI3) *resource alignment*.
4. *Strategy controlling:* All activities during the purchase category strategy development process need to be controlled in order to ensure the operation of purchase category strategies as well as the achievement of the desired goals. Performance controlling has been addressed by previous maturity models such as Cousins et al (2006) and also is covered by the current maturity profile based on (SC1) *performance reviewing*, (SC2) *implementation of control mechanisms* and (SC3) *taking corrective actions*.

The maturity profile developed measures the four dimensions described above based on several maturity stages that have been linked to every dimension. The maturity stages are derived from theory, previous maturity models or have been based on best practice observations during the master thesis project at a leading medical and safety technology company¹⁰⁵. The maturity model used measures every topic of category strategy development maturity based on four maturity stages. In line with the model of Schiele (2007) the four stages for every topic are defined according to best practices for every subject and where applicable their logic is structured according to process-organisation principles (See Table 4). ¹⁰⁶.

¹⁰⁵ See Hartmann, Kerkfeld, and Henke (2012), p. 31; Heriberto Garcia and Ronald (2010), pp. 418-420; Paul, Benn, and Brian (2006), pp. 792-794; Paulraj, Chen, and Flynn (2006), pp. 119-120; Übeda et al. (2015), p. 184.

¹⁰⁶ See Schiele (2007), p. 278.

Stage	Measurement (The organisation ...)
<i>Stage 1</i>	is aware of a best-practice method, tool or activity
<i>Stage 2</i>	has assigned a person or position to perform a task
<i>Stage 3</i>	has applied a process for the completion of the task which is documented
<i>Stage 4</i>	assures cross-functional integration and meets basic requirements

Table 4 Measurement for purchase category strategy process development maturity

A detailed representation of the purchase category strategy development process maturity model is summarized in Appendix A¹⁰⁷. The next section continues to address the second research question by introducing four different groups of strategy tools from category management.

3.3 Strategy tools at the purchase category level: Introducing four streams of strategy tools from category management literature

Although purchase category management is a relatively youthful discipline there is a high number of strategy tools for strategy development available. These strategy tools contribute to strategizing as they execute many different functions including information generation, encouraging communication of ideas, providing a structure for analysis and assisting with coordination and control. For example, strategy tools can support category managers to generate strategic relevant information from their environments that can enhance the performance of the purchase category. However, the diversity of tools in category management is relatively low. The models identified in literature can be divided into four main groups: (1) *portfolio models*, (2) *lever analysis models*, (3) *system architecture models* and (4) *general tools from others disciplines*.

Portfolio models represent the most established group of strategy tools in category management. Portfolio models in category management are used to classify resources or relationships according to their strategic relevance in different portfolio quadrants in order to support the decision-making process¹⁰⁸. The most cited and addressed portfolio model in purchasing literature has been the 2x2 purchasing portfolio matrix developed by Kraljic (1983) that classifies purchasing spend along the two dimensions “supply risk” and “strategic importance” into four different quadrants for which different tactics or norm strategies have

¹⁰⁷ See Appendix A, p. A1 – A8.

¹⁰⁸ See Lee and Drake (2010), p. 6653; Luzzini, Caniato, Ronchi, and Spina (2012), p. 1017; Wagner and Johnson (2004), p. 719.

been defined: non-critical, leverage, bottleneck and strategic purchases¹⁰⁹. Further portfolio models predominant in purchasing literature use classification schemes based on material characteristics¹¹⁰, buyer-supplier relationships¹¹¹, purchasing skills¹¹² or power positions¹¹³. Table 5 provides an overview of selected portfolio models from purchasing literature. The majority of portfolio models propose a set of tactics or norm strategies that managers can apply in the respective portfolio quadrant in order to manage the diversity of organizational spend. Therefore, portfolio models are deductive, analytic and predictive frameworks as they provide managers with advice on what tactics or strategies can be applied to generate sustainable rents for example in form of innovation or cost savings. Nevertheless, the research of Hesping and Schiele (2016) shows that the set of tactics and strategies proposed by portfolio models is not coherent as different tactics can be applied to several quadrants within the portfolio model¹¹⁴. Instead the diversity of portfolios in modern category management requires more differentiated approaches to portfolio management.

Sourcing Levers represent the second group of strategy tools in category management. According to Schiele (2007) “A *sourcing lever* is a set of measures that can improve sourcing performance in a commodity group”¹¹⁵. In other words, sourcing levers represent a set of tactics category managers can use to improve purchase category performance. One goal of sourcing levers is to address competitive priorities including innovation, quality, cost reduction, flexibility or quality¹¹⁶. There is a large number of sourcing lever frameworks prevalent in existing literature which mainly differ in the number of levers and the degree of complexity¹¹⁷. For instance, whereas the model of O’Brien (2015) describes 15 tactics which are grouped into five lever groups, the model Schuh et al. (2011) summarizes 64 tactics into sixteen sourcing levers¹¹⁸. Table 5 provides an overview of selected sourcing lever models identified from purchase category management literature. In general, lever analysis can be

¹⁰⁹ See Kraljic (1983), p. 111.

¹¹⁰ See Gelderman and Semeijn (2006), p. 214; Hesping and Schiele (2016a), p. 114; Kraljic (1983), p. 111.

¹¹¹ See Bensaou (1999), p. 38; Gadde and Snehota (2000), p. 314; Terpend et al. (2011), p. 75.

¹¹² See Knight, Tu, and Preston (2014), p. 278.

¹¹³ See Caniëls and Gelderman (2005), p. 143, 2007), p. 223; Cox, Sanderson, and Watson (2001), p. 720; Pazirandeh and Norrman (2014), p. 42; Schuh, Kromoser, Strohmer, Pérez, and Triplat (2009), p. 12.

¹¹⁴ See Hesping and Schiele (2016a), p. 113.

¹¹⁵ See Schiele (2007), p. 279.

¹¹⁶ See Hesping and Schiele (2016a), p. 104.

¹¹⁷ See Büsch (2013), p. 153; O’Brien (2015), p. 130; Schiele (2007), p. 280; Schuh and Bremicker (2005), p. 68; Schumacher and Contzen (2008), p. 38.

¹¹⁸ See O’Brien (2015), p. 130; Schuh and Bremicker (2005), p. 68.

conducted during lever workshops in which purchasers together with cross-functional partners discuss every sourcing lever in order to identify potentials for performance improvements within a category. An empirically well-tested lever analysis framework has been provided by Schiele (2007) who uses seven sourcing levers to identify performance improvement potentials: pooling of demand, product and programme optimisation, price evaluation, process improvement, extension of supplier base, intensification of supply relationship and category-spanned leverage¹¹⁹. In comparison to portfolio models, the tactics proposed by sourcing levers are not limited to single purchasing quadrants. This has been confirmed by the research of Hesping and Schiele (2016) who conducted a survey at 107 sourcing projects and found that sourcing levers in practice have not limited to single purchasing portfolio quadrants but rather have been used in an additive way¹²⁰.

System architecture models are multidimensional frameworks that describe the relationship between several units of analysis at different sub-systems. In comparison to purchasing portfolios and sourcing levers, system architecture models tend to structure the environment into different sub-systems and thus are more complex due to their high number of sub-dimensions. Table 5 includes two different system architecture models that have been identified in purchase category management literature: the *15M architecture* and the *Power in Procurement System*¹²¹. The *15M architecture* developed by Heß (2008) is a framework for the development and continuous improvement of supply strategies based on an architecture system. The system consists of four strategic sub-systems (overall supply strategy, supply market strategy, supplier strategy and controlling) and 15 modules in order to develop a supply strategy¹²². In contrast, the *Power in Procurement System* developed by Bräkling & Oidtmann (2012) is a process based on planning, operations and controlling of four power factors (organization, markets, functions, operations)¹²³. To increase the power of the procurement function, the *Power in Procurement System* includes tasks to be carried out to develop strategies for every of the four power factors. Both frameworks represent process models including specific tasks on different subsystems of the procurement function and address the emergent nature of strategy through continuous reconfiguration and diversification of resources.

¹¹⁹ See Schiele (2007), p. 280.

¹²⁰ See Hesping and Schiele (2016a), pp. 112-113.

¹²¹ See Bräkling and Oidtmann (2012), p. 27; Heß (2008), p. 43.

¹²² See Heß (2008), p. 43.

¹²³ See Bräkling and Oidtmann (2012), p. 27.

Finally, there is a number of strategy tools *from other disciplines* that contribute to purchase category strategy development. Table 5 summarizes a number of strategy tools from other disciplines including Five Forces, Balanced Scorecard, Stakeholder analysis, SWOT analysis and PESTLE. Among others these tools have also been proposed by O'Brien (2015)¹²⁴ for the use in category management. For an elaboration on these strategy tools this master thesis refers to previous literature which provided an in-depth discussion on every tool.

Name of tool	Reference Literature
Portfolio models / matrices	
The Purchasing Portfolio Matrix	Kraljic (1983), p. 111
Power-dependence matrix	Caniëls and Gelderman (2005), p. 143
Buyer-supplier relationship matrix	Bensaou (1999), p. 38
Skills profile matrix	Knight et al. (2014), p. 278
Buyer-supplier power structure matrix	Pazirandeh and Norrman (2014), p. 42
Sourcing Levers	
Sourcing lever diamond	Schuh and Bremicker (2005), p. 68
Seven levers	Schumacher and Contzen (2008), p. 38
Seven sourcing levers	Schiele (2007), p. 280
Three key levers	Büscher (2013), p. 153
Five value levers	O'Brien (2015), p. 130
Purchasing chessboard	See Schuh et al. (2009), p. 54
System architecture models	
15M Architecture	Heß (2008), p. 43
Power in Procurement System	Bräkling and Oidtmann (2012), p. 27
Tools applied from other disciplines	
Five Forces	Porter (1980), p. 4
Balanced Scorecard	Kaplan and Norton (1992), p. 72
Stakeholder analysis	Bruga and Varvasovszky (2000), p. 239
SWOT analysis	Marilyn and Judy (2010), pp. 215-216
PESTLE	O'Brien (2015), p. 448

Table 5 Strategy tools from Category Management

The next section is addressing the third research question by discussing benefits that result from category strategy development.

¹²⁴ See O'Brien (2015), pp. 434 - 459.

3.4 Benefits of Purchase Category Management: Achieving preferred customer status for preferential resource allocation

Purchase category management can contribute to the achievement of preferred customer status with key suppliers for core categories in order to achieve competitive advantage over competition. Recent business practices such as the core competence movement, supply base optimization and open innovation gave rise to the adoption of the preferred customer concept as they have shifted the balance of power in supply markets to the supply side¹²⁵. As a consequence, buying companies have become more dependent on suppliers for certain purchase categories¹²⁶. Therefore, category managers started to invest more efforts in the relationship with their strategic suppliers in order to rebalance buyer-supplier relations and achieve preferential treatment. One of the main goals of category managers in category management is to secure access to the optimal supplier portfolio from the supply market over competition which can lead to sustainable competitive advantage¹²⁷.

The achievement of preferred customer status through category management practices can lead to various performance benefits. According to Hüttinger, Schiele, and Veldman (2012) “[...] benefits of being a preferred customer are at the centre of many studies.”¹²⁸. Examples of these benefits are decreased transaction and negotiation costs, less opportunistic pricing behaviour, access to the supplier’s best employees, higher engagement in NPD-projects and increased access to supplier innovations and technologies¹²⁹. Therefore, achieving preferred customer status should be seen as a central practice in category management and be considered when defining purchase category strategies. It is assumed that those companies where the preferred customer classification is an integral part of the purchase category strategy are able to increase performance benefits stemming from category management.

In order to identify further benefits of purchase category management an extensive literature review has been conducted classifying performance benefits into four distinct categories: economic, technological, operational and interaction benefits. These benefits are assumed to contribute to the achievement of sustainable competitive advantage.

¹²⁵ See Schiele (2012), p. 44; Schiele, Calvi, and Gibbert (2012), p. 1178; Vos, Schiele, and Hüttinger (2016), p. 4613.

¹²⁶ See Nollet, Rebolledo, and Popel (2012), p. 1186; Schiele, Veldman, and Hüttinger (2011), p. 2.

¹²⁷ See Pulles, Schiele, Veldman, and Hüttinger (2016), p. 129; Schiele and Vos (2015), p. 139.

¹²⁸ Hüttinger, Schiele, and Veldman (2012), p. 1201.

¹²⁹ See Baxter (2012), p. 1250; Ellis, Henke, and Kull (2012), pp. 1259-1261; Jeroen, Hans, Bart, and Geert (2015), p. 183; Nollet et al. (2012), p. 1187; Schiele, Veldman, et al. (2011), p. 8.

Economic benefits affect the financial performance of a purchase category and are measured in monetary terms. First, category management can lead to lower purchase prices as the result of supplier optimization, product improvements and process improvements. For example, Ak et al. (2015) state that supply base reduction in category management leads to higher volume discounts which reduces purchase prices¹³⁰. Furthermore, category management can contribute to the reduction of total costs¹³¹. O'Brien (2015) estimate that organizations with a low category maturity can achieve between 10-20 per cent price reduction of purchased goods or services¹³². For instance, cost performance can be improved through long-term contracting with key suppliers which reduces cost uncertainties and leads to lower purchase prices for the buying company¹³³. Next to this purchase category management can lead to lower transaction, administration and negotiation costs due to optimizations in buyer-supplier relationships¹³⁴. Moreover, other economic benefits identified are reduced asset utilization, mitigation of price increases and increased customer satisfaction¹³⁵.

Technological or innovation benefits address advantages that improve the innovation performance of a purchase category. According to Jonathan (2015) category management can improve the introduction rate of new products or services as the result of improved buyer-supplier collaboration¹³⁶. Moreover, category management has the potential to reduce the time to market with suppliers through early integration into the new product development processes¹³⁷. Another benefit of category management is that purchaser build up technical expertise and knowledge with respect to their purchase categories¹³⁸. This in turn can enhance the innovative performance as purchasers have state of the art knowledge on the respective supplier market, manufacturing technologies and innovations. Other technological benefits are for example access to a supplier's innovative ideas through the involvement in new product designs and services as well as an increased level of standardization which allows modular product designs¹³⁹.

¹³⁰ See Ak et al. (2015), p. 205.

¹³¹ See O'Brien (2015), p. 68.

¹³² See O'Brien (2015), p. 68.

¹³³ See Ak et al. (2015), p. 207.

¹³⁴ See Ak et al. (2015), p. 205.

¹³⁵ See Jonathan (2015), p. 69; O'Brien (2015), p. 31.

¹³⁶ See Jonathan (2015), p. 68.

¹³⁷ See Ak et al. (2015), p. 216.

¹³⁸ See Grajczyk (2015), p. 2.

¹³⁹ See Ak et al. (2015), p. 216; Eßig and Wagner (2003), p. 290.

Operational benefits affect the operational performance of purchase categories. According to Grajczyk (2015) category management leads to an increased transparency and knowledge of the supply market¹⁴⁰. Furthermore, category management can reduce logistical cost, transportation costs and the complexity in transportation routes¹⁴¹. This in turn can reduce the lead time and therefore increase the speed of delivery to the company's facilities¹⁴². Another operational benefit of category management is the transparency related to the spend of a company¹⁴³. The use of category codes allows companies to analyse a category of spend for several performance improvements based on lever analysis including for example the levers product optimization, cost savings potentials, process improvements or the extension of the supplier base¹⁴⁴. O'Brien (2015) furthermore argue that category management can lead to a reduction in supply chain risk through an increased focus in the collaboration between category management and supplier relationship management¹⁴⁵. Next to this, other operational benefits are the improvement of the efficiency of purchasing processes, improvements in the coordination between buyers and suppliers and an enhanced quality level¹⁴⁶.

Interaction benefits arise from the interaction between the buyer and supplier within a certain purchase category. For example, supply base optimisation and standardization of products in category management often leads to a reduced number of suppliers in the supply base¹⁴⁷. As the result the number of interactions with various different suppliers decreases while the number of interactions with core suppliers' increases. Hence, this allows an increased cross-functional collaboration between the buying company with suppliers from a particular purchase category¹⁴⁸. Furthermore, an interactional benefit of category management is an increased negotiation power as the result of volume bundling¹⁴⁹. Finally, based on a social exchange-theory perspective category management can lead to preferential capacity and resource allocation as the result of preferred customer status¹⁵⁰.

¹⁴⁰ See Grajczyk (2015), p. 67.

¹⁴¹ See Bozarth (1998), p. 244.

¹⁴² See Bozarth (1998), p. 244.

¹⁴³ See Jonathan (2015), p. 69.

¹⁴⁴ See Hesping and Schiele (2016a), p. 105.

¹⁴⁵ See O'Brien (2015), p. 69.

¹⁴⁶ See Ak et al. (2015), p. 2; Grajczyk (2015), p. 3; O'Brien (2015), p. 68.

¹⁴⁷ See Bozarth (1998), p. 244.

¹⁴⁸ See Jonathan (2015), p. 70,

¹⁴⁹ See Grajczyk (2015), p. 3; Rüdrich et al. (2016), p. 14.

¹⁵⁰ See Bozarth (1998), p. 244.

Table 6 summarizes the benefits of category management identified from academic literature. The paper proceeds with a discussion of the research methods of this study.

	Benefits of purchase category management	Reference to literature
Interaction Benefits	Increased negotiation power	See Grajczyk (2015), p. 3; Rüdrich et al. (2016), p. 14
	Increased cross-functional collaboration	See Jonathan (2015), p. 70
	Fewer suppliers	See Bozarth (1998), p. 244
	Preferential capacity and resources allocation	See Bozarth (1998), p. 244
Economic Benefits	Reduction of purchase prices	See Ak et al. (2015), p. 216; Kauppi, Brandon-Jones, Ronchi, and van Raaij (2013), p. 844; O'Brien (2015), p. 31
	Volume bundling	See Bozarth (1998), p. 244; Grajczyk (2015), p. 3
	Reduction of total cost	See Ak et al. (2015), p. 216; O'Brien (2015), p. 68
	Reducing asset utilization	See Ak et al. (2015), p. 216
	Mitigating price increases	See O'Brien (2015), p. 31
Technological/Innovation Benefits	Customer satisfaction	See Jonathan (2015), p. 69
	Reduction of time to market with suppliers	See Ak et al. (2015), p. 216
	Standardization	See Eßig and Wagner (2003), p. 290
	Technological Expertise of category managers	See Grajczyk (2015), p. 2
Operational Benefits	Improving introduction rates of new products/services	See Ak et al. (2015), p. 216; Jonathan (2015), p. 68
	Improving the involvement of suppliers in designing new products/services	See Ak et al. (2015), p. 216
	Increased transparency and knowledge of supply market	See Grajczyk (2015), p. 67
Operational Benefits	Reduction of logistical cost and transportation routes complexity	See Bozarth (1998), p. 244; (Grajczyk, 2015), p. 237
	Improved coordination and quality	Ak et al. (2015), p. 2
	Reduced lead time	See Bozarth (1998), p. 244
	Transparency of spend	See Jonathan (2015), p. 69
	Improving effectiveness and efficiency of purchasing processes	See Grajczyk (2015), p. 3; O'Brien (2015), p. 68
	Reducing supply chain risk	See O'Brien (2015), p. 69

Table 6 Benefits of purchase category management

All in all, it can be concluded that despite a high interest of purchase category strategy development in practice, strategy development concepts only recently have received increased attention in the scientific community¹⁵¹. As a result, there is little knowledge on the derivation of a purchase category strategy in existing literature¹⁵². This line of reasoning is supported by Hesping and Schiele (2015) who indicate that several strategy development concepts in purchase category management have been developed for practical purposes and criticize that academic literature has contributed relatively little¹⁵³. Consequently, category management literature should catch up with practice to provide managers with best practice models for purchase category strategy development. In order to close this gap the following chapters describe six case studies conducted at different Western European organizations with the goal to link findings with purchase category management literature in order to confirm, reinforce and add findings to the existing body of research and answer the three research questions under this study.

¹⁵¹ See Boutellier and Zagler (2000), p. 7.

¹⁵² See Ak et al. (2015), p. 205.

¹⁵³ See Hesping and Schiele (2015), p. 147.

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Appendix – Purchase Category Strategy Development Maturity Profile

Source: Own elaboration based on Schiele (2007) - This document is incomplete without oral explanation.

	Process Stage	Questions for Analysis	% observed	Stage 1 (0%-25%)	Stage 2 (26%-50%)	Stage 3 (51%-75%)	Stage 4 (76%-100%)
		Strategy Planning					
SP1		Demand Planning					
1	Process	To what extend is category management involved in project/product planning? Are planning results documented and accessible for strategy development?		Product or project planning is sporadically known to purchasing personnel at the category level.	Dedicated purchasing personnel at category level are informed about product or project planning. Purchasing has access to demand planning systems.	Purchasing personnel at category level is integrated into product and project planning and utilises existing demand planning systems. Purchasing inclusion points are defined in the process documentation.	Early involvement of purchasing personnel at category level in product and project planning is always ensured. Planning results are an integrative component of the category strategy.
2	Assessment of Demand	Where are future demands of materials or services for a purchase category derived from?		Demands are partly derived from sales or order income prognosis/forecasts.	Demands are derived from sales or order income prognosis/forecasts and planned for significant commodity areas.	Demands are derived systematically and in structured fashion from sales or order income prognosis/forecasts. Procurement market facts are remedially considered.	Demands are always derived systematically and in structured fashion from sales or order income prognosis/forecasts. Procurement market facts like price changes are fully considered when planning sales. System is continuously updated.
SP2		Pooling Planning					
3	Planning	Do you analyse categories for groupwide pooling potential when planning your strategy? Does this regularly happen to all categories?		Occasional analysis of selected categories.	All categories are analysed based on category code data.	Complete purchasing volume is permanently analysed in regard to pooling opportunities. Results are documented.	Future demands are analysed regularly and systematically in respect of their pooling opportunities. Cross-functional partners are involved.
4	Mandates	How are negotiation mandates and responsibilities defined, i.e. are people clearly assigned to purchase categories? Are there group-wide procedures established?		Regulation of negotiation mandates and responsibilities is planned.	Negotiation mandates and responsibilities are partially regulated for single commodities.	Negotiation mandates and responsibilities are regulated. Process applied for all commodities.	Negotiation mandates are delegated and responsibilities are clearly defined on a global basis. Mandates are actively applied.
5	IT support	Which IT tools support you when managing poolable demand?		Insufficient application of IT tools for pooling (e.g. Excel or similar IT-Tools).	Application of a business unit wide IT tool for pooling.	Application of a uniform IT tool for group-wide pooling.	Application of an integrative intranet-based IT tool for corporate pooling. Intranet based preferred parts and preferred supplier's database used cross-functionally.

	Process Stage	Questions for Analysis	% observed	Stage 1 (0%-25%)	Stage 2 (26%-50%)	Stage 3 (51%-75%)	Stage 4 (76%-100%)
SP3		Environment Scan					
6	External Analysis	How do you identify purchase category strategy requirements from your external environments? What methods for analysis do you use?		Occasional external analysis of selected categories.	The external environment of all categories is analysed by the responsible purchasing personnel.	A procedure for external analysis is defined, documented and applied.	A process is defined for external analysis and cross-functionally integrated and requirements are met.
7	Competitor Analysis	Do you benchmark your category strategies against those of your competitors? How do achieve competitive advantage over competitors?		Occasional competitor analysis of selected categories.	The competitive environment of all categories is analysed by the responsible purchasing personnel.	A procedure for competitor analysis is defined, documented and applied.	A process is defined and cross-functionally integrated and requirements are met.
8	Internal Analysis	How do you identify purchase category strategy requirements from your internal environments? What methods for analysis do you use?		Occasional internal analysis of selected categories.	The internal environment of all categories is analysed by the responsible purchasing personnel.	A process for internal analysis is defined, documented and applied.	The process for internal analysis is cross-functionally integrated and requirements are met.
9	Cross-functional integration	How are partner functions involved in drawing conclusions out of the analysis results?		Results out of the environmental analysis remains mostly at purchasing.	Less active exchange with other process partners (e.g. engineering, sales).	Regular information exchange process with partners (e.g. engineering, sales).	Exchange of environment analysis results occur continuously and is protected against the non-authorised use by stakeholders.
SP4		Innovation Planning					
10	Technology Identification	How do you keep track of technology trends within your purchase category strategy?		Category management reactively follows procedures of process partners (e.g. Engineering, Sales)	Category management presents remedially information about technology trends to their process partners. Technology monitoring is part of purchaser's responsibilities, but applied in a sporadic or passive form.	Category management acts proactively following established processes.	Category management supports systematically product or technology development. Information about technology trends used by cross-functional partners. Tools for innovation generation are available (value engineering, innovation workshops etc.)
11	Innovation process	Is there a formal process of innovation and technology monitoring or scouting established?		Process is planned.	Rough process in category purchasing is available. Sporadic application.	Detailed process with clear category purchasing responsibilities is implemented and applied.	Detailed process available, with an early supplier inclusion process is implemented and applied. The process is supported by IT based tools.
12	Technology Roadmaps	Are category managers acquainted with internal technology roadmaps for their category? Is there a methodology of correlating internal technology roadmaps with those of the suppliers from a purchase category?		Own product and technology roadmaps exist and are partially known to category purchasers.	Own product and technology roadmaps are known, those of strategic suppliers are partially known. Responsibilities for roadmap-analysis defined.	Process of matching own product and technology roadmaps with the roadmaps of significant suppliers.	Implementation of harmonised product and technology roadmaps with selected suppliers, cross-functionally agreed. Suppliers regularly present their technology roadmaps.

	Process Stage	Questions for Analysis	% observed	Stage 1 (0%-25%)	Stage 2 (26%-50%)	Stage 3 (51%-75%)	Stage 4 (76%-100%)
SO		Strategy Organization					
SO1		Structure and Mandates					
13	Category Structure	Do you classify spend according to an-inhouse classification scheme?		Only a few purchased materials and services are classified into categories.	All purchased materials and services are categorized by responsible purchasing personnel.	There is a process in place for categorizing purchased materials and services continuously.	Purchased materials and services are continuously categorized and category structures are cross-functionally integrated.
14	Category Organisation and Roles	Is a category management organisation established? Are responsibilities for strategy development defined?		Category responsible people are named. Purchasing organisation is insufficiently established.	Category organisation is formally in place.	Category organisation is established and is in charge of all category management activities. Category management policy is described and communicated.	Category organisation is continuously further developed based on business strategy, purchasing strategy, benchmarks, interviews or process reviews.
15	Mandates	Is category management responsible for all procured goods and services? Do you have regulations for sanctions for non-compliance?		Many categories are not managed in responsibility of category management	Category management initiates programs and measures for mandating procurement fields. Penetration > 50%.	Category management has the mandates for complete purchasing volume defined mandatorily and communicated. Penetration > 80%.	Regulations for sanctions in case of non-compliance are introduced. Penetration ca.100%.
16	Cross-functional integration	Are interfaces towards partner functions defined? Are they cross-functionally agreed and responsibilities defined?		Interfaces of category management are known and tasks are partially described.	Interfaces are cross-functionally agreed for isolated function. Respective tasks and responsibilities at the partner functions are known.	Tasks and responsibilities are co-ordinated with all interfaces according to company wide defined processes, and are described in a guideline.	Category management drives continuous improvement and the definition of interfaces and guidelines are described.
17	Integration into Group	How is category management integrated in the purchasing network of the group / in case of a single location organisation: collaborating with other firms?		Category management acts locally without exchange with other purchasing departments.	Category management remedially exchanges information with other purchasing departments.	Category management is an active part of the group-wide procurement network.	Category management is integrative part of the worldwide procurement network of the group.
SO2		Strategic Plan Conception at Category Level					
18	Category strategy process	Do you have a management process in place for the definition of purchase category strategies?		Purchase category strategies are defined individually.	A planning process is existing for all substantial purchase categories.	The purchase category strategy development process is defined. Strategy development plans are derived from strategic planning activities and are implemented.	Category strategy development process is implemented and regularly updated. Development plans are harmonised across the organisation and shared cross-functionally. Communication of all results is ensured.
19	Purchase category strategy roadmap	How do you formulate targets and objectives at purchase category level?		Targets and objectives are not formally assessed.	Targets and objectives are formulated by responsible purchasing personnel.	There is a process in place for continuous reformulation of targets and objectives by responsible purchasing personnel.	Targets and objectives are continuously reformulated and aligned with the company's business and purchasing strategy, cross-functional partners and international stakeholders

	Process Stage	Questions for Analysis	% observed	Stage 1 (0%-25%)	Stage 2 (26%-50%)	Stage 3 (51%-75%)	Stage 4 (76%-100%)
20	Target Results Definition	Are the targets for the purchasing category derived from the purchasing strategy and business plan of the group? Are category managers involved in defining targets together with executive management?		Purchasing category targets are derived isolated out of business planning targets.	Purchasing category targets are derived from the business planning targets under involvement of purchasing. Targets are not cross-functionally agreed.	Category management is comprehensively involved in the target setting. Category management targets are partially cross-functionally accepted.	Category management is significantly involved in the target setting of the business unit. Input out of procurement markets are considered in the planning process. Impact of category purchasing targets on business results are integrated in the budget and rolling forecast.
21	Supply base alignment	Do you have a procedure in place in order to align the supply base structure in accordance to your purchase category strategy?		Supply base structure in some cases is adapted in line with category strategy.	Supply base structure for all categories is adapted in line with category strategy.	Category purchasers installed a procedure to regularly review whether the supply base structure is aligned with the category strategy.	A procedure is in place to regularly align the supply base structure with the category strategy in collaboration with cross-functional stakeholders.
SO3	Strategic Plan Conception at Supplier Level						
22	Supplier Management Process	Has a formal supplier management process been implemented?		Supplier management is not or only partially described.	Purchasing personnel is responsible for supplier selection, evaluation, development and phase-out based.	A supplier management process is applied and decisions are traceable documented.	A supplier management process is applied. Supplier management is documented. Cross-functional partners are integrated into the supplier management process.
23	Supplier strategy roadmap	Are supplier strategies formulated and documented? How do you align supplier strategies with purchase category strategies?		Supplier strategy is documented insufficiently. No alignment.	Supplier strategies are documented for major suppliers. No alignment.	Supplier strategies are documented according to a process for strategic suppliers and aligned with category strategies.	The organisation is fully aligned to support the supplier strategy development process, which is continuously and systematically improved.
SO4	Strategic Plan Alignment with other Functions						
24	Involvement Marketing	Is category management acquainted with marketing strategies, relevant markets and key customers? Do you align marketing strategies with purchase category strategies?		Marketing strategies are partially known in category management. Alignment depends on single persons.	Existing and future marketing strategies are known in category management. Alignment depends on single persons.	Category strategies influences marketing strategies or sales prognosis by provision of procurement market know how following a regular process.	Category strategies are integrative part in the development of marketing strategies and sales prognosis.
25	Involvement Quality	Do category strategies consider differentiated quality targets for purchase categories?		Integration of quality targets depends on single persons. Integration occurs incidentally, criteria for integration are not existing. Quality management is subject to quality department.	Category management supports the quality department in quality related issues resp. supplier issues (e.g. claim and extra expenses cases). Interfaces established.	Category management is integrated into processes that ensure that quality targets are met. Targets are integrated into the category strategy.	Cross-functional integration into quality management processes. Target are defined with cross-functional partners and integrated into the category strategy.
26	Involvement Logistics	Are there and if so, what are the joint targets between category management and material handling / logistics?		Logistics targets are known to category management and sometimes part of supplier negotiations.	Logistics targets are partially known to category managers and are considered in supplier negotiations.	In the regular process, logistics agreements are concluded together with logistics department at substantial suppliers.	Logistics targets are defined jointly with logistics, continuously updated and implemented.

	Process Stage	Questions for Analysis	% observed	Stage 1 (0%-25%)	Stage 2 (26%-50%)	Stage 3 (51%-75%)	Stage 4 (76%-100%)
27	Involvement Operative Procurement	Are purchase category strategies known by operative procurement? Is a consistent information exchange ensured between both departments?		Strategies are not known to operative procurement and vice versa.	Strategies are known to operative procurement. Information exchange between the departments is ensured.	Strategic and operative purchasing systematically exchange important targets (approach, agreements). Agreements with suppliers are known to operative purchasing and are implemented.	Category strategies are implemented by operative procurement and are complied. Topics of operative procurement are agreed with suppliers by strategic purchasing.
28	Involvement Risk Management	Is risk management an integral part of the category strategy?		Less involvement of category management resp. no risk management process in place.	Responsibilities within category management are clearly described and communicated to the employees.	Involvement and tasks of category management at the risk management process are described. Implementation follows widely the process description.	Risk management is an integrative part of the category management process. Cross-functional involvement ensured and documented.
SO5		Strategic Integration					
29	Management meetings	Are category strategies presented and approved during regular management meetings? Are cross-functional stakeholders involved in the approval process?		No approval process for purchase category strategies in place.	Purchasing management is responsible for the approval of purchase category strategies.	A process is implemented regulating the approval of purchase categories which is documented.	An approval process is implemented and cross-functional stakeholders are involved in the approval process of purchase category strategies to ensure full alignment.
30	Make-or-Buy Decisions	Is category management involved in all make-or-buy decisions? Does category management personnel take part at core competency definition and strategic decisions?		Category managers are not informed about procurement related aspects in make-or-buy projects.	Category managers are involved in major make-or-buy decisions and core competency definition within a purchase category.	A process regulates the involvement of category managers in make or-buy decision. Category managers define core competencies of a purchase category.	A process regulates the involvement of category managers in make or buy-decisions. Category management tasks are cross-functionally accepted. Potentials for optimisation of the depth of own value added are indicated along the product life-cycle.
SI		Strategy Implementation					
SI1		People Alignment					
31	Strategy Communication	How are category strategies communicated to stakeholders? Are formal strategy plans available?		Purchase category strategies are only defined and known by the responsible category manager. Strategies are not formally available.	The category manager is responsible for the communication of the purchase category strategy in the organization.	There is a formal process in place defining the distribution and communication of purchase strategies within purchasing. Strategies are documented.	Strategy communication is assured cross-functionally through a process defining which stakeholders have to be informed and regularly updated. Purchase category strategies and strategic action plans are made available to relevant stakeholders globally
32	Strategic Action Plans	Are strategic action plans developed based on the category strategy determining who is responsible for certain activities until when and how?		Purchase category strategies are not broken down into strategic action plans.	The purchase category manager has broken down targets into a strategic action plan and is responsible for implementation.	There is a process in place for the definition of strategic action plans based on the category strategy. Strategic action plans are documented and persons are assigned to activities.	There is a procedure in place for the definition and monitoring of strategic action plans. Strategic actions are defined cross-functionally to responsible personnel and actions are regularly tracked and controlled.

	Process Stage	Questions for Analysis	% observed	Stage 1 (0%-25%)	Stage 2 (26%-50%)	Stage 3 (51%-75%)	Stage 4 (76%-100%)
33	Technical Competencies	Is there technical competence available for category strategy development e.g. advanced sourcing engineer?		Partial existence of technical competence, further development is planned.	Technical competence in category management is existing for all substantial commodity areas.	Technical competence in category management is existing for all substantial commodity areas. Project management competence in purchasing is sufficiently developed for efficient collaboration with project teams.	Competencies for all substantial commodity areas are existing and will be continuously developed, remedial and temporary introduction of special knowledge (e.g. consultants).
34	Target Agreements	Are targets defined on employee-level? To what extent? Do targets contain qualitative and quantitative elements?		Target agreements on the non-managerial level is not existing.	Occasional finalisation of target agreements on the non-managerial level. Target agreements include qualitative and quantitative targets.	Target agreements finalised with the complete staff. Continuous support and review.	Target agreements are coordinated and defined with cross-functional partners if necessary, reviewed during the fiscal year.
SI2	Structural Alignment						
35	Functions	Are key functions responsible for the implementation of category strategies described in a generic way?		Individual category management functions are described in general.	Substantial category management functions are standardised described, documented and adapted to firm strategy.	Category management functions are described in detail and agreed with cross-functional partners. Descriptions of category management functions are standardised at all sites.	Developments/tendencies of job profiles are observed and forwarded for review on group level.
36	Strategy Meetings	Are strategy meetings established for reviewing the progress of strategy implementation?		The progress of strategic activities is not being monitored.	The category manager is responsible for the monitoring of strategic actions to assure implementation.	Strategic actions are monitored during regular category management strategy meetings where the progress of strategy implementation will be discussed. Both, activities and progress are documented.	There are regular cross-functional strategy meetings in place that monitor the progress of strategy implementation. The activities and progress are discussed and documented.
SI3	Resource Alignment						
37	Budgets	Does category management have access to sufficient budgeting for the implementation of category strategies?		There is no budgeting for category strategy implementation projects available.	There is limited budgeting available. Budgets are only assigned to those categories with the highest potential for cost savings.	Category management has limited budgets available. Budgets are assigned to those categories with the highest potential for overall performance increases.	There are sufficient budgets available for the implementation of category strategies. Budgets are made available for all category strategies increasing the companies cross-functional performance.
38	Resources	Is enough purchasing personnel allocated to the implementation of purchase category strategies?		There are no personnel available for the implementation of category strategies.	Category management personnel is assigned to purchase categories and responsible for implementation.	There are sufficient personnel available for the implementation of purchase category strategies including additional key functions as value management, advanced procurement engineers etc.	Personnel is allocated cross-functionally to the implementation of purchase category strategies. In case of bottleneck external staff is hired to perform single tasks.

	Process Stage	Questions for Analysis	% observed	Stage 1 (0%-25%)	Stage 2 (26%-50%)	Stage 3 (51%-75%)	Stage 4 (76%-100%)
SC		Strategy Controlling					
SC1		Performance reviewing					
39	Measurement Figures	Are measuring parameters defined to review purchase category strategies?		Only limited target follow-up based on existing performance figures possible.	Substantial performance figures (e.g. balanced scorecard) are implemented.	Group-wide mandatory performance figures are completed by own ones for particular areas.	Performance figures for all scorecard targets are continuously and cross-functionally defined.
40	Responsibility	Are roles and responsibilities for performance reviewing clear and described?		Tasks and responsibilities are insufficiently described.	Tasks and responsibilities are sufficiently described.	Tasks and responsibilities are described according to requirement profiles and are applied.	Tasks and responsibilities are included in a controlling guideline. Implementation mandate for agreed standards in purchasing controlling is established.
41	Category Codes	Do you have category codes in place that allows to review the performance?		Commodity code classification only for selected commodity areas.	Correct and complete commodity code classification for "direct material" is ensured.	Commodity code is defined as a mandatory data field for order release. Continuous revision of wrong commodity code classifications.	Correct and complete commodity code classification is ensured for the total purchase volume.
42	IT support	Are you able to perform spend analysis? On what level of automation?		Purchasing volume is available only for the local ERP-Systems.	Purchasing volume is generated by calculating it according to a group-wide accepted method and can be retrieved to specific purchasing needs.	Regular provision of purchase volume in a central database (e.g. purchasing information system).	Availability of all purchasing volume data in a central database on a monthly basis and active support of standardised supplier number matching process.
SC2		Implementation of control mechanisms					
43	Target Break-down	How are category strategy targets broken down?		There is no structured target breakdown in place.	Single financial results and performance figures are defined and remedially reviewed.	Substantial financial results and performance figures are defined and are reviewed regularly.	Targets are broken down and structured based on scorecard targets (e.g. processes, finance, customer/market, employee/knowledge/innovation) and reviewed regularly on the basis of rolling forecasts.
44	Organisational Structure	Is the function of planning and steering available and established? Are the planning and steering tasks in category management clearly defined and documented?		Planning and controlling function for category management is not existing.	Planning and controlling function for category management controlling is existing.	Planning and controlling tasks of category management are described and implemented as an own function with defined processes.	Planning and controlling tasks of category management are applied as described and are integrated into the operative controlling processes of the business unit.
45	Measurement Controlling Process	Is there a structured procedure for controlling measures/actions/activities?		Result relevant measures are hardly tracked.	Measures are tracked regularly.	Measures are regularly tracked by the degree of implementation systematic or similar. IT support.	All measures are systematically tracked based on their impact on business results. Supervision of measurement implementation by business unit management.

	Process Stage	Questions for Analysis	% observed	Stage 1 (0%-25%)	Stage 2 (26%-50%)	Stage 3 (51%-75%)	Stage 4 (76%-100%)
SC3	Taking corrective actions						
46	Target Controlling Process	How are deviations from plan handled?		Target-/Actual-comparisons are unregularly applied.	Target-/Actual-comparisons are regularly applied. Necessary correction measures initiated partially.	Target-/Actual-comparisons are applied on the basis of regular strategy review meetings with purchasing management. Correction measures are consequently implemented.	Target-/Actual comparisons are applied on the basis of regular strategy review meetings with cross functional stakeholders. Correction measures are consequently implemented.
47	Root-Cause Analysis	Is root-cause analysis conducted to identify causes for deviations from the strategy?		Root-cause analysis is not applied.	Root-cause analysis is unregularly applied by the responsible category manager to identify causes for deviation.	A process ensures that root-cause analysis is immediately applied by category managers in case of deviations and causes are documented.	A process regulates that root-cause analysis is applied. Cross-functional partners are involved in the analysis and causes are documented.
48	Strategy Revision	Are strategies revised in case of deviations to ensure whether they are still appropriate?		Strategies are not revised in case of deviations.	Category managers revises strategies in case of significant deviations from the plan.	A process ensures that deviations are addressed and strategies are revised in case of environmental changes.	A process ensures that deviations are addressed and strategy are revised. Cross-functional partners are involved in strategy revision and approval process for changes is existent.