



# **Implementing Sustainable Sourcing: Concept, Usage, and Internal Coordination with Corporate and Functional Sustainability Efforts**

by  
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**Inaugural dissertation for obtaining the academic degree  
Doctor rerum politicarum (Dr. rer. pol.)**

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Vallendar, 30<sup>th</sup> of April 2012  
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# 1 Introduction

## 1.1 Problem Exposition

In times of climate change and widespread loss of biodiversity, ecological awareness is not only omnipresent in the political and societal agenda but also in today's business world (e.g., Corbett and Klassen, 2006; Dahlmann et al., 2008; Florida and Davison, 2001; Lee and Rhee, 2007; Tuttle and Heap, 2008). Complemented by the consideration of social aspects and effects of business activities, this corresponds closely to the idea of sustainability. The concept of sustainability was first brought to broad public attention almost 25 years ago by the World Commission on Environment and Development. It requires mankind to restrain the current usage of non-renewable material and energy in order to safeguard enough resources to guarantee equally high living standards for future generations (Brundtland, 1987).

The current debate on sustainability is closely interconnected to previous discussions on companies assuming additional social responsibilities that exceed the mere optimization of financial firm performance, which has been framed within the concept of Corporate Social Responsibility (CSR) (e.g., Andersen and Skjoett-Larsen, 2009). As the idea of corporate sustainability is largely based upon the notion of corporate responsibilities, its scope and definition are worthwhile to be considered: As a common denominator of myriad different definitions, it is generally accepted that CSR requires companies to consider and minimize the social and/or environmental impact of their profit making activities beyond simply obeying the law (Carroll, 1979; Hill et al., 2003; McWilliams and Siegel, 2001; Steiner, 1975). This general approach is also utilized by the so called 'triple bottom line' (Elkington, 1998) as a holistic evaluation of a firm's overall performance. This concept requires the simultaneous consideration and optimization of economic, ecological, and social effects of business activities (Góncz et al., 2007; Sikdar, 2003).

The rise in popularity of concepts, such as CSR and sustainability, corresponds to increasing competitive pressure as well as intensified stakeholder scrutiny by consumers, governments, and non-governmental organisations (Carter and Easton, 2011; Sarkis, 1998), who exert rising pressure on companies to assume environmental and social responsibilities (e.g., Cousins et al., 2004; Pane Haden et al., 2009; Sharma and Henriques, 2005).

At the same time, companies themselves have become increasingly aware of the negative effects that result from neglecting such corporate responsibility concerns: penalties, clean-up costs and image backlash (Simpson et al., 2007). Yet, the intention to avoid these risks is not the only motivation for companies to devote time and resources to corporate responsibility. First, having proactive, rather than reactive social and environmental responsibility strategies increases stakeholder satisfaction (Fowler and Hope, 2007). Second, increased

corporate responsibility activities may improve competitive advantage (e.g., Porter and van der Linde, 1995). However, the adoption of select environmental practices for a limited period of time will not necessarily lead to competitive advantage; rather, it is necessary to follow a long-term approach considering factors, such as learning from multiple stakeholders, developing managerial and organisational knowledge, and generating continuous improvement and innovation (Aragón-Correa and Sharma, 2003).

In this context, sustainable supply chain management has been identified as a strong lever to systematically minimize the overall social and environmental impact of business activities (Min and Galle, 1997; Tate et al., 2010; Webb, 1994). Its implementation on a corporate level calls for the involvement of all relevant functions as well as the systematic alignment of all different departmental activities (Handfield et al., 1997; Wu and Dunn, 1995). Of all potential corporate functions, the purchasing department as a particularly relevant boundary-spanning function within the supply chain plays an especially important role in the implementation of sustainable supply chain management (e.g., Green et al., 1998; Min and Galle, 1997; Turner and Houson, 2009; Tuttle and Heap, 2008; Zsidisin and Siferd, 2001): Located at the starting point of the flow of materials into an organisation, the purchasing department is the original expert on the firm's supply environment. This knowledge constitutes the basis for being able to establish environmental and social standards for supplier performance (Simpson et al., 2007; Tate et al., 2010), such as, for example, ensuring resource reduction or substitution activities (Carter et al., 1998; Porter and van der Linde, 1995). More specifically, Tate et al.'s (2010) content analysis of CSR reports has revealed that sustainable supply chain management relies largely upon sustainable suppliers and, thus, upon sustainable sourcing. The purchasing function's particular relevance for implementing overall corporate sustainability is further reinforced by the realization that a company is only as sustainable as its upstream supply chain (Handfield et al., 2005; Krause et al., 2009).

In the context of this research, sustainable sourcing is defined as “managing all aspects of the upstream component of the supply chain to maximise triple bottom line performance” (Pagell et al., 2010, p. 58). This tripartite approach referring to business' impacts on people, profits, and the environment (Kleindorfer et al., 2005) is commonly accepted in previous research (Reuter et al., 2010; Tate et al., 2010) and, as such, forms the basis of this study. Previous research on sustainable sourcing has discussed different aspects (Pagell and Wu, 2009; Tate et al., 2010), for instance select antecedents (Reuter et al., 2010) or specific measures of a successful implementation of sustainable sourcing (Pagell et al., 2010). By considering eco-



nomic, environmental, and social sourcing criteria at the same time, this research differs from prior literature that has mainly explored either (1) social (e.g., Cooper et al., 2000; Leire and Mont, 2010; Park and Stoel, 2005) or (2) environmental aspects within sourcing (e.g., Carter et al., 1998; Min and Galle, 2001; Walton et al., 1998).

Although the body of research on sustainable sourcing is growing continuously, some basics have, so far, not been covered extensively; there is, for example, still no established clarification of when sourcing activities can be classified as sustainable or not. Furthermore, research on sustainable sourcing has, until recently, largely neglected interconnections to other relevant aspects of purchasing research, particularly referring to the need to coordinate sourcing efforts with internal and external stakeholders. More specifically, purchasing and supply management research has highlighted the need for purchasing to extend its scope of activities towards actively considering stakeholders beyond suppliers (e.g., Carter et al., 2000) and overcoming functional silos by increasing internal coordination (e.g., Tassabehji and Moorhouse, 2008).

Even though these shortcomings in terms of internal and external coordination constitute general deficiencies of the purchasing function, they are, most probably, also of particular relevance to the implementation of sustainable sourcing: On the one hand, select research findings stress the importance of considering different stakeholders when implementing sustainable sourcing (Worthington et al., 2008; Zheng et al., 2007) – without, however, identifying the most salient stakeholders to be taken into account. On the other hand, the implementation of sustainable sourcing can be assumed to depend upon internal coordination, for Carter and Jennings (2002) have identified a lack of internal communication and cooperation as one important barrier to green sourcing. Furthermore, there have been explicit calls for research on the relationship between the cross-functional cooperation of purchasing, marketing, and sales and the implementation of green sourcing (e.g., Carter, 2004; Carter and Carter, 1998; Carter and Jennings, 2004). For instance, Carter et al. (1998) call for additional research “to more thoroughly assess the interactions of purchasing [...] with other internal functions, such as marketing” and to identify “the barriers existing towards cross-functional implementation of environmental purchasing [...] and ways how firms that have successfully implemented environmental purchasing have been able to overcome these barriers” (p. 36). This call remains valid even today and can be expected to be of even greater relevance when transferred to the more comprehensive concept of sustainable sourcing.

Corresponding to this research setting, one part of this dissertation is dedicated to assessing the salience of different internal and external stakeholders in driving the purchasing

function to implement sustainable sourcing. Furthermore, another part deals with the relevance of coordinating sustainable sourcing efforts with neighbouring business functions and the factual implementation of such cross-functional coordination.

In order to be able to address these internal and external aspects related to the implementation of sustainable sourcing and, particularly, its resulting consequences for the purchasing function, it is deemed necessary to gain a thorough and comprehensive overview of the current status and set-up of the purchasing function. Undoubtedly, purchasing has outgrown its former, rather operational focus and gained an increasingly strategic role in view of consistently high outsourcing rates and sourcing volumes often covering 50% or more of a company's expenditure (e.g., Ellram et al., 2002; Johnson et al., 2006; Paulraj et al., 2006). Assuming that the necessities to respond to stakeholder pressures and to coordinate sustainable sourcing efforts internally might lead to organisational implications, a first foundational part of the dissertation is dedicated to establishing basic insights on the organisational set-up of the purchasing function. Based upon this understanding of purchasing organisation, it is possible to elaborate further on the need to increase the purchasing function's stakeholder responsiveness and to intensify its internal coordination with neighbouring functions due to and in the course of implementing sustainable sourcing.

## **1.2 Outline of the Dissertation**

Corresponding to the outlined three main parts, this dissertation is organised in five chapters, with the Chapters 2, 3, and 4 representing three distinct papers intended for publication in academic journals.

Following this introduction, Chapter 2 addresses the organisational set-up of the purchasing function as the basis for further considerations on the implementation of sustainable sourcing. Corresponding to recent calls for research, this chapter addresses two research questions:

- 1. Which aspects of purchasing organisation have been researched in the past and how have they evolved over time?*
- 2. Is there still a need for further research on purchasing organisation and, if so, which relevant avenues for further research can be identified?*

In order to do so, a literature review is conducted relying upon a broad article search strategy and reviewing 212 articles from 45 peer-reviewed journals published over the last 50 years within and beyond the purchasing community. Via a thorough content analysis of these

articles, distinct research areas dealing with different aspects of organising the purchasing function are identified and characterised. By connecting these research areas to future business trends, this chapter closes with deducing various future research avenues for each research area.

Having established a sound understanding of previous research on the organisational set-up of the purchasing function, the subsequent chapters of this dissertation are dedicated to investigating the implementation of sustainable sourcing.

Chapter 3 paves the way by advancing the understanding of sustainable sourcing and its implementation by addressing three research questions:

3. *How can the concept of sustainable sourcing be operationalised?*
4. *Which stakeholders constitute relevant drivers to the implementation of sustainable sourcing?*
5. *How is the purchasing function's need to cooperate internally and externally influenced by these relevant stakeholders?*

Accordingly, this chapter operationalises sustainable sourcing and defines different archetypes of implementing sustainable sourcing, which correspond to the company-specific emphasis on each of the three sustainability dimensions, i.e., economic, environmental, and social aspects. Based upon stakeholder theory, this chapter further assesses internal and external stakeholders' specific salience to drive the implementation of sustainable sourcing and the impact of those stakeholders' claims on individual, company-specific sustainable sourcing profiles. Finally, this chapter explores how the purchasing function may need to change its internal and external relationships due to and in the course of implementing sustainable sourcing. Covering these three aspects, this conceptual chapter concludes with a framework of testable propositions and offers several avenues for further research.

Complementing the focus of Chapter 3 on stakeholder responsiveness as a necessary prerequisite for implementing sustainable sourcing, Chapter 4 focuses on the relevance of internal coordination for the implementation of corporate sustainability in general and sustainable sourcing in particular. The initial purpose of investigating the relevance of internal coordination for the implementation of sustainable sourcing only was extended during the course of the research to comprise also the internal coordination required to implement corporate sustainability and sustainable marketing. This broader focus allows for drawing comparisons on the need for internal coordination and, thus, enables more profound insights on the particular case of implementing sustainable sourcing.

Previous research has demonstrated that the implementation of corporate sustainability relies strongly on different functional sustainability efforts within the corporation. Although these need to be coordinated both between each other and with corporate sustainability efforts, the relevance of internal coordination for the implementation of corporate sustainability has not been addressed previously. According to corresponding calls for research on the importance of internal coordination for implementing corporate and functional sustainability (Carter, 2004; Carter and Carter, 1998; Carter and Jennings, 2004) and on the empirical examination of the influence of specific contingencies on the implementation of corporate sustainability (Aragón-Correa and Sharma, 2003), this chapter is thus dedicated to investigating three research questions:

6. *How relevant is internal coordination for the implementation of corporate sustainability?*
7. *Under which contingencies are organic and/or mechanistic coordination mechanisms more effective for facilitating internal coordination and thus, ultimately, fostering the implementation of corporate sustainability?*
8. *How relevant is internal coordination in general and how effective are organic and mechanistic coordination mechanisms in particular for functional sustainability efforts by the purchasing and marketing functions?*

In order to do so, a contingent inductive case study approach relying upon five cross-industry cases is followed to analyse the relevance of internal coordination for the implementation of corporate sustainability in general and the relevance and effectiveness of organic and mechanistic coordination mechanisms in particular. Focusing mainly on company-internal contingencies, such as corporate culture, corporate structure, and different characteristics of the corporate sustainability approach, the findings, formulated as research propositions, provide first insights into the relevance of internal coordination mechanisms for the implementation of corporate sustainability, sustainable sourcing, and sustainable marketing.

After having considered the purchasing function's organisational background as the general setting for implementing sustainable sourcing in Chapter 2, the most salient stakeholders to consider in the process and their influence on resulting company-specific sustainable sourcing profiles in Chapter 3 as well as the internal coordination required for implementing sustainable sourcing in Chapter 4, the dissertation concludes with Chapter 5. There, the overarching key insights and academic contributions are summarized and complemented by an outlook on potential future research avenues.

## **2 Laying the Basis for Implementing Sustainable Sourcing: The Organisational Setup of the Purchasing Function**

## 2.1 Introduction

In times of consistently high outsourcing rates and sourcing volumes often covering 50% of a company's expenditure or more, the purchasing function has outgrown its former, rather operational focus and gained an increasingly strategic role (e.g., Ellram et al., 2002; Johnson et al., 2006; Paulraj et al., 2006). However, despite empirical evidence of purchasing's notable contribution to an overall corporate competitive advantage (Cousins et al., 2006; Liker and Choi, 2004), its strategic transformation is progressing only slowly and faces several internal barriers (Cousins and Spekman, 2003).

One challenge of contributing effectively to corporate performance lies in the alignment of purchasing strategies with corporate and other functional strategies (Johnson and Leenders, 2001). Furthermore, intensified attention and higher expectations placed on purchasing also need to be reflected in its organisation, for example, in terms of increasing staff numbers or adapted organisational structures. Regardless of whether structure follows strategy or vice versa (e.g., Hall and Saias, 1980; Mintzberg, 1990), purchasing strategy and purchasing organisation need to be aligned to support the purchasing function in fulfilling both functional and corporate objectives. As a consequence, purchasing's enhanced role within the corporation necessarily requires effective and efficient organisational setup of the purchasing function.

Although – as this chapter will show – various organisational aspects of purchasing have already been researched extensively over the past 50 years, there are still calls for research on how to organise purchasing (e.g., Driedonks et al., 2010; Zheng et al., 2007). While these might serve as an indication for the topic's continuous high relevance, they also raise the question of whether, after 50 years of research on purchasing organisation, there is truly a need for further research in this field.

In order to shed light on this matter, it is useful to recap previous work and thereby determine the status quo of research on purchasing organisation. This overview then enables us to investigate potential areas for further research by connecting the results of the literature review to (future) business trends that are of relevance to the supply management discipline.

For this purpose, we take into account all articles that have been published on purchasing organisation in English-speaking peer-reviewed journals and, furthermore, apply a broad understanding of organisation as provided by Nadler and Tushman (1980). This encompasses four core elements of organisations, namely the formal organisation and work and technology as structural elements as well as the people and the informal organisation as “softer,” employee-related aspects. These elements are assumed to be interrelated and embedded in the

context of organisational strategies and goals as well as the broader business environment (Nadler and Tushman, 1980), thus equipping us to consider various elements of purchasing organisation and their interdependency with the corporate context and the broader business environment.

Founded on this broad understanding of organisation, this chapter – based on an extensive literature review – provides a comprehensive overview of the entire existing body of knowledge on the organisation of the purchasing function and its development over time. Furthermore, it demonstrates the need for future research, identifies specific research avenues in the discipline, and thus addresses the following research questions:

1. *Which aspects of purchasing organisation have been researched in the past, and how have they evolved over time?*
2. *Is there still a need for further research on purchasing organisation, and if so, which relevant avenues for further research can be identified?*

The remainder of the chapter first provides the methodology section before presenting the results of our descriptive analysis. The subsequent sections outline 12 identified research areas according to their evolution over time and link those research areas to virulent trends in the field in order to present various avenues for future research. The chapter ends with an overall conclusion.

## **2.2 Methodology**

Following established procedures (e.g., Carter and Ellram, 2003; Spens and Kovács, 2006; Wynstra, 2010), we apply content analysis to consolidate the existing knowledge regarding the organisational setup of the purchasing function. Content analysis allows for a reliable, objective, and systematic study of existing publications (Cullinane and Toy, 2000; Ellinger et al., 2003) and represents, as such, a suitable method for comprehensive literature reviews of academic papers (Larson and Poist, 2004; Miyazaki et al., 1999). According to prevalent approaches (Kolbe and Burnett, 1991; Li and Cavusgil, 1995), sampling, coding, and categorisation are detailed subsequently.

*Sampling.* Our goal was to identify all relevant papers from English-speaking peer-reviewed journals that cover organisational aspects of the purchasing function. While we expected the majority of relevant articles to be published in purchasing journals, we also analysed the coverage of purchasing organisation in other research communities in response to

Wynstra's (2010) call for increased collaboration between purchasing and other scholarly communities. This resulted in a dual search strategy which has already proved useful in similar settings (e.g., Zheng et al., 2007): First, we conducted a journal-focused search in the two premier academic purchasing journals, namely the Journal of Purchasing and Supply Management (JPSM) and the Journal of Supply Chain Management (JSCM) and their respective predecessors. Second, we conducted a broad search of Ebsco Business Source Complete and Emerald databases to cover additional purchasing journals as well as journals from other scholarly communities. In both cases, we did not limit the time span in order to fully trace the research developments over time.

During the search, we relied upon the broad definition of organisation provided by Nadler and Tushman (1980), which supports our comprehensive research design and the sampling of articles relevant to the organisation of the purchasing function. Accordingly, we used a large set of key words consisting of (1) "purchasing," "sourcing," "procurement," "supply management," "buying," or "supply side" on the one hand and (2) "design" and "organis\*" or "organiz\*" on the other hand, leading to a total of 18 separately searched key word permutations.

Our search strategy yielded a very extensive compilation of 6 075 initial hits. We reduced this to 552 articles by analysing titles and abstracts and eliminating publications not actually dealing with organisational aspects of purchasing. In a second step, the articles were further reduced to 212 relevant works by selecting only those which focus mainly and explicitly on organisational aspects of purchasing (see Appendix 1 for a comprehensive list of all 212 reviewed articles).

*Coding and Categorisation.* For the retained 212 articles, we conducted a descriptive analysis before studying their contents in greater depth. The descriptive analysis covers the articles' year and journal of publication as well as their research design.

For the content analysis we decided to use a bottom-up coding scheme following our intention to provide a comprehensive overview of the existing body of knowledge. Not only would a framework-based coding approach have been difficult to apply due to a lack of purchasing-specific classifications (Wynstra, 2010), but we are also convinced of the advantages of bottom-up coding; it allows for unbiased consideration of various different topics, and it does not force researchers to subsume articles to pre-established, possibly badly fitting framework categories, but enables them to map the research landscape in a more realistic and holistic way. Category codes were developed and transformed throughout the coding process



in an iterative manner (Carter and Ellram, 2003; Weston et al., 2001) to yield a total number of 27 content categories covering different aspects of the purchasing organisation. Subsequently, each of the 212 articles was assigned to one or more content categories depending upon its respective content.

Throughout the coding process (as well as during the search and identification of relevant articles), at least two researchers were simultaneously involved to address reliability concerns (Yin, 2009). Potential disagreements concerning the relevance and coding of single publications were discussed until they were solved. As in previous studies (e.g., Carter and Rogers, 2008; Seuring and Müller, 2008), validity was ensured via discussions with additional researchers.

Subsequently, we aggregated those 27 content categories to 12 superordinate research areas, each referring to different aspects of purchasing organisation. The aggregation was achieved through correlation and factor analyses using SPSS software and was complemented by qualitative judgements. This integrative procedure ensured the superordinate research areas' completeness (to include all 27 identified topics) and non-redundancy (to cover separate areas). Having defined those 12 research areas, we reviewed each article again to assign it to the appropriate research areas. Although an article could cover all 12 research areas, very focused articles are assigned to only one, and no article is assigned to more than six research areas (the mean being 3.29 research areas per article). If more than one research area is covered in an article, the main focus research area(s) is highlighted (see Appendix 1).

### **2.3 Descriptive Analysis: General Characteristics of Relevant Research**

*Year and Journal of Publication.* The relevant articles cover almost 50 years of research on the organisation of the purchasing function (1962-2010) and have been published in 45 journals, which we clustered in five groups (see Appendix B for an outline of the journals covered by each of the journal groups), namely “purchasing & supply management,” “SCM & logistics,” “operations management,” “marketing,” “general management,” and “miscellaneous.” Remarkably, less than half of the articles (46%) have been published in purchasing & supply management journals; 26% stem from marketing journals, 8% are from operations management and SCM & logistics journals respectively, and the remaining 12% come from general management and miscellaneous journals (6% each). The most important single journals reflect this general trend: 51 articles have been published in JSCM and its predecessors,

47 in JPSM and its predecessor, 13 in the Journal of Business & Industrial Marketing, 11 in Industrial Marketing Management, and 9 respectively in the Journal of Marketing and in the International Journal of Operations & Production Management.

Analysis of the articles according to journal group and year of publication reveals an interesting pattern (cf. Figure 1). Marketing journals clearly dominated the field until 1990 and initially paved the way for organisational purchasing research (from a seller’s perspective). Only much later, starting in the 1990s, did purchasing & supply management journals as well as other scholarly communities outnumber marketing publications, reflecting a general increase in interest toward purchasing organisation.

*Methodology.* The rising number of relevant articles in the 1990s is mirrored by the methodology employed. While initially there were equal numbers of theoretical-conceptual and empirical articles, the rising interest in the organisational aspects of purchasing has entailed a rapid increase in empirical work. Until today, this has been the predominant approach for research on purchasing organisation, with 37% of all articles applying qualitative and another 37% a qualitative empirical research design, 22% being theoretical-conceptual contributions and 4% using a mixed method methodology. While quantitative designs have dominated research between 1981 and 1995, qualitative research has been leading the field ever since.

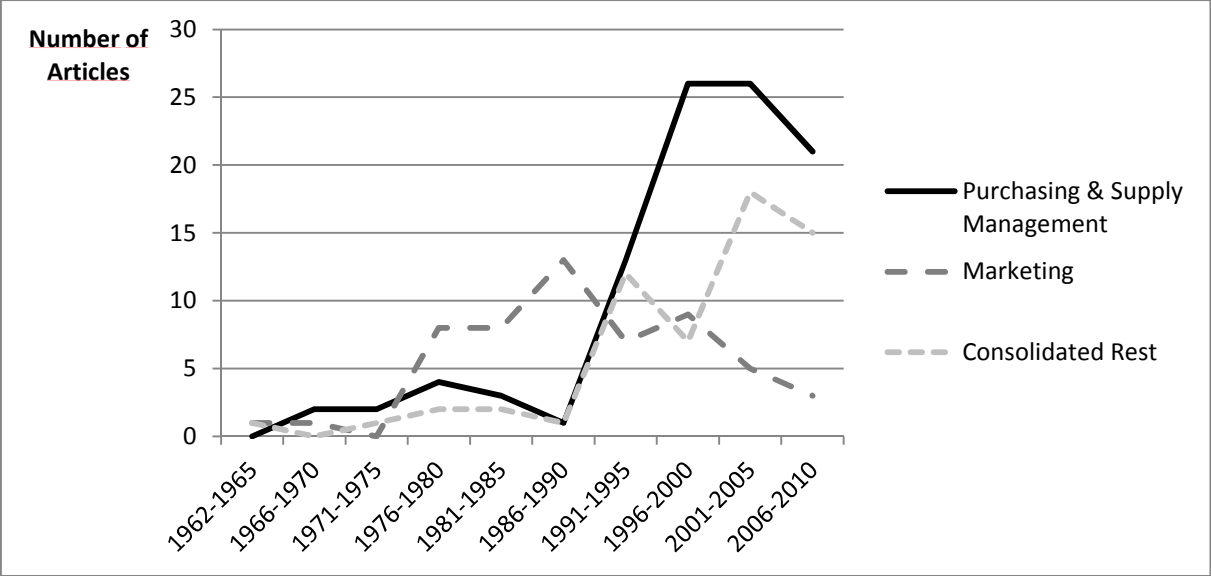


Figure 1: Articles according to their Journal Type and Year of Publication

## 2.4 Content Analysis: Characterisation of Research Areas

Content analysis of the 212 articles revealed 12 research areas, whose subsequent description will give a detailed overview of the aspects covered by research on purchasing organisation during the past 50 years. Corresponding to our research questions, the research areas are clustered according to their development over time.

The first and biggest cluster contains seven research areas rooted in the 1960s, marking the beginning of research on the organisational aspects of purchasing. These areas are *Structure & Formalities*, *Relationship Management*, *Everyday Processes & Policies*, *Evolving Responsibilities*, *Strategic Alignment*, *HR & Change Management*, and *Decision Making*. The second group covers two research areas initiated in the 1970s, namely *Strategic Performance & Measurement* and *Buying Centres & Purchasing's Status*, while the third group emerged in the 1980s and covers *Organisational Learning*, *Leadership & Culture*, and *IT & E-Business*.

While a general characterisation of all research areas is provided in Appendices 3-5, the following presentation of each research area focuses only on the articles' main implications for purchasing organisation and the research areas' principal descriptive characteristics. To increase the readability of these content descriptions, we subsequently refer to all 212 articles by their index number displayed in Appendix 1. Furthermore, Appendix 2 illustrates which research areas are predominantly covered by each of the five journal groups (i.e., journal group-specific focus research areas); however, in the subsequent sections, this is outlined only in particularly interesting cases.

### 2.4.1 Cluster 1: Very Well-Covered Research Areas Going Back to the 1960s

#### *Structure & Formalities*

This research area is the most exhaustive in number and is covered by 99 articles, which date back as far as 1965. As in most research areas, articles were predominantly published during the last 20 years – in this case mainly in purchasing (46%) and marketing (27%) journals. However, *Structure & Formalities* is a focus research area in all journal groups except SCM & logistics journals. In terms of methodology usage, there has been a continuous increase in qualitative research since 1986 with a peak from 2006 to 2010 when more than 60% of all articles were qualitative. This might indicate that, after a certain saturation of quantitative empirical research, qualitative designs have been more useful in offering new insights into the field.

*Structure & Formalities* covers four topics, all originating in the early 1980s or before, namely (1) the establishment of purchasing as a separate function; (2) different types and determinants of purchasing's organisational structure, especially centralisation and formalisation; (3) the importance and relevance of purchasing's organisational structure; and (4) the process of re-organising purchasing.

Regarding the establishment of purchasing as a separate function, articles deal with relevant influencing factors (cf. 37), corresponding challenges (cf. 39), and advantages, such as improved purchasing performance (cf. 155; 189).

Concerning the setup of purchasing's organisational structure, some articles deal with select elements, such as integration mechanisms and the location of authority (cf. 144; 169; 190; 191). Yet, the clear majority of articles focus on different degrees of centralisation and formalisation resulting in differing organisational structures for the purchasing function (cf. 108; 182; 205), thereby partially taking into account the influence of purchasing strategies (cf. 5; 67) and purchasing situations (cf. 59; 168; 114; 182). Furthermore, centralised purchasing functions are found to offer various advantages (cf. 187) and reflect purchasing's increasingly strategic role (cf. 197). Among the articles discussing determinants of purchasing's structural setup, some focus on company-external factors, such as the characteristics of the supply markets (cf. 144; 165; 190; 191). Others address different company-internal factors ranging from corporate setup and strategy to utilization of e-procurement (cf. 1; 60; 144; 164; 167; 190) or focus on differences resulting from private or public ownership of the superordinate organisation (cf. 106; 114; 176).

The importance of purchasing's organisational structure is addressed on a corporate level for achieving different types of purchasing objectives and performance (cf. 18; 29; 182; 189; 193; 194) and for contributing to corporate activities to enhance overall competitive advantage (cf. 102; 169). Furthermore, the relevance of purchasing's organisational structure is analysed for purchasing-specific aspects, such as the implementation of purchasing strategies and the reinforcement of market orientation (cf. 51; 166; 176) as well as for boundary-spanning effects concerning an improved supplier management (cf. 154; 172).

Some articles describe the process of the re-organisation of purchasing itself and the resulting changes (cf. 20; 97), while most examine different reasons for adapting organisational structures, such as changing purchasing strategies or supplier management practices (cf. 95; 124; 145; 172).

### *Relationship Management*

This research area is discussed by 93 articles published since 1962, more than 80% of them since 1991. It represents the strongest focus of purchasing journals, which account for 56% of the articles; SCM & logistics and operations management journals, however, also focus on this research area. Compared to other research areas, there are slightly fewer theoretical-conceptual contributions and more articles employing a quantitative rather than a qualitative empirical research methodology.

*Relationship Management* covers articles dealing with (1) purchasing's interfaces and associated challenges concerning power, influence, and conflict; (2) purchasing's participation in strategic corporate activities; and (3) the usage of cross-functional teams in purchasing. Concerning purchasing's interfaces and their management, several articles analyse purchasing's relations to other business functions (cf. 127; 184) – particularly to marketing (cf. 69; 202) – and the resulting internal service performance as a proxy for purchasing's overall performance (cf. 69; 119). In addition to identifying purchasing's tactics to influence the behaviour of other departments (cf. 184), several researchers address influence mechanisms during the purchasing decision process both on a functional (cf. 53; 141) and an individual level (cf. 92; 168). Conflicts of interest between departments as one potential effect of exerting influence are also covered in this research area, particularly different antecedents of conflicts, such as conflict-favouring organisational structures and ambiguous departmental responsibilities (cf. 9; 127; 131). Apart from one contribution addressing an enhancement of purchasing's strategic reputation as a remedy for conflicts with the marketing department (cf. 69), there is, so far, surprisingly little research on conflict resolution in this interdepartmental context.

Research dealing with purchasing's participation in strategic corporate activities focuses mainly on enablers supporting purchasing's involvement in new product development processes, such as congruent organisational structures of the involved departments and relevant skills of the involved managers (cf. 116; 136; 207; 208). Other aspects include purchasing's obligation to involve suppliers as early as possible via appropriate organisational measures (cf. 40) and the contradiction between the stated strategic importance of purchasing and its factually low participation in strategic activities at the corporate level (cf. 69).

Concerning cross-functional purchasing teams, research has been conducted on antecedents of such team usage (cf. 94), but the clear majority of it focuses on success factors for cross-functional team performance, such as reward systems, skills of participants, and team leadership (cf. 141; 142; 143; 192; 194).

One particularly well-covered success factor is purchasing's team orientation with its outcomes and antecedents, such as reward systems, skills, and communication processes (cf. 41; 86; 141).

#### *Everyday Processes & Policies*

This research area is covered by 78 articles published since 1965, more than half of them during the last 15 years. Being one of three areas in which the majority of articles stem from marketing journals (in this case 42% of all articles), almost all publications date back to before 2001. Overall, this is a good example of marketing having paved the way for a research area, as the other journal groups have since then increased their attention as well. In terms of methodology usage, this research area has been largely dominated by qualitative research for the last 15 years.

*Everyday Processes & Policies* is rather diverse and covers articles dealing with (1) different aspects of purchasing processes, (2) their variability according to different purchasing situations, and (3) their antecedents and consequences.

While some authors address strategic purchasing processes as an enabler to implement purchasing strategies (cf. 11; 42; 196), the clear majority focuses rather on characteristics of operational purchasing processes, such as different activities and phases of the purchasing process (cf. 7; 23; 91; 132; 147; 158; 198), or supporting tools and instruments, such as competitive bidding procedures or just-in-time purchasing (cf. 48; 62; 109).

Purchasing situations are shown to determine the nature and scope of purchasing processes (cf. 90; 209). More specifically, several articles analyse the impact of the type of good to be purchased (cf. 39; 64; 90; 151; 152; 173; 195; 199; 203; 206), while others focus on the impact of the superordinate organisation within which the purchasing function is embedded. Among the latter, some articles differentiate between public and private organisations and their respective purchasing function's processes and activities (cf. 22; 24; 33; 64; 173; 175), while others focus on specific types of private organisations, such as small and medium enterprises (cf. 4; 7; 158; 159).

Finally, there is research concerning the impact of other organisational aspects on purchasing processes and activities, such as the usage of IT- and Internet-based procedures (cf. 6) as well as research on the consequences of purchasing processes and activities on other organisational elements, such as organisational structure and purchasing performance (cf. 35; 62; 171).

### *Evolving Responsibilities*

This research area is covered by 75 articles, which have been published since 1965, with a peak at the end of the 1990s. While the clear majority of articles come from purchasing journals (64%), this research area is also one of the focus research areas of SCM & logistics and general management journals. Interestingly, the first peak of qualitative empirical articles (1996-2000) has been followed by a wave of quantitative research (2001-2005), which has again been largely replaced by qualitative research designs. As such, this research area follows an often advocated archetypical course of methodology usage during the lifecycle of a research topic: After initial qualitative exploration, first findings are corroborated quantitatively to be then extended and deepened again via qualitative research.

*Evolving Responsibilities* focuses mainly on (1) a longitudinal perspective on purchasing's evolution over time, and (2) an analysis of its role and responsibilities. Some longitudinal studies track the general changes of the purchasing function (cf. 28) as well as its roles and responsibilities (cf. 57; 96; 98; 101; 104), while others address the evolution of purchasing's relationship to other business functions over time (cf. 27; 82; 123). A third group of longitudinal studies focuses on retracing past developments (cf. 46; 54; 79) or anticipating future trends and corresponding purchasing evolution (cf. 26; 43; 193; 210). Concerning purchasing's roles and responsibilities, a first group of papers describes the current or future roles of the purchasing function, such as purchasing's increasingly strategic role (cf. 78; 83; 123) and its strategic alignment with and contribution to the overall organisation (cf. 69; 70; 110). Select research deals with the reasons for this increasingly strategic role (cf. 96), while the majority focuses on antecedents enabling purchasing to live up to this role, such as its equipment with appropriate IT systems (cf. 19) and the establishment of purchasing as a separate function (cf. 155) on par with other departments (cf. 58; 153). Further prerequisites for mastering this strategic role include suitable HR management practices, such as the deliberate selection and employment of new entry-level purchasing managers (cf. 63), qualification and training for existing purchasing managers (cf. 66; 186), executive education programs (cf. 56; 87; 88; 89), and usage of appropriate compensation and performance measurement systems (cf. 150).

### *Strategic Alignment*

This research area is discussed by 59 articles published since 1966, with almost 80% of them during the last 15 years. Among all articles, 64% come from purchasing and 12% from SCM & logistics journals, with the latter focusing particularly on this research area. While

theoretical-conceptual research represents 25% of all articles and has dominated until the 1990s, this research area has since been dominated by qualitative research.

*Strategic Alignment* concentrates on (1) different types of purchasing strategies and their implementation, (2) purchasing's strategic development and change, and (3) purchasing's strategic contribution to corporate performance.

Concerning purchasing strategies, some authors focus on organisational implications of specific strategy alternatives, such as socially responsible purchasing or partnership sourcing (cf. 35; 42; 43; 46; 134; 164), while others address barriers to the implementation of purchasing strategy, such as a lack of commitment or skills (cf. 11; 30; 196).

Regarding the process of purchasing's strategic development and change, some research examines the rather generic steps of such a process and purchasing's corresponding historical evolution (cf. 28; 46), whereas other research focuses on select aspects of this strategic change process (cf. 110; 160). Analysed drivers for such strategic development mainly refer to changes in corporate strategy but also consider changes in the business environment (cf. 17; 134; 160; 164).

In terms of the purchasing function's strategic contribution to corporate objectives and performance, all articles predominantly discuss the need for purchasing to increase this strategic contribution, for example by increasing purchasing competence and synergies (cf. 35; 47; 49; 110; 153; 160; 169; 211).

### *HR & Change Management*

This research area is covered by 79 articles published since 1962, with 85% of them since 1991. Of all articles, 58% come from purchasing journals, which place a particular focus on this research area. Contrasting the general trend, this research area has seen an almost equal distribution of qualitative and quantitative research designs since 2000, with qualitative research dominating slightly, mainly at the expense of theoretical-conceptual contributions.

*HR & Change Management* encompasses two domains: (1) the broad topic of HR in the purchasing function and (2) the smaller topic of change management.

Concerning skills and competencies, a few articles address skills on the departmental level that are necessary in order to increase purchasing performance and its contribution to corporate objectives (cf. 25; 41; 77; 187). The majority concentrates on skills of different employee groups within purchasing, placing great emphasis on the Chief Purchasing Officer (cf. 96; 98; 99; 100; 103; 148; 177; 212) and on other executive purchasing personnel's capabilities required to correspond to purchasing's strategic role (cf. 56; 87; 88; 89). The largest



skills-related group, however, deals with competencies and capabilities of purchasing managers that foster their professionalism and allow for enhancing purchasing's performance and its strategic role, for example by increasing purchasing managers' influence within the overall organisation (cf. 41; 52; 63; 66; 68; 117; 118; 140; 145; 153; 155; 178; 186; 201).

Accounting for previous and anticipated changes in purchasing managers' positions (cf. 156; 200), there has also been research on training and development measures suitable to increase this professionalism of the individual buyer (cf. 18; 121; 153; 178; 201). Furthermore, there is research available on the psychological aspects of the purchasing manager's position, such as role stress or social benefits associated with the job (cf. 76; 137; 138). Finally, some articles deal with the influence of career opportunities within the function and incentives set by properly designed measurement, reward, and compensation systems for increasing motivation and inducing intended behaviour (cf. 50; 120; 137; 148; 150; 212).

The second, smaller part of this research area deals with managing changes in purchasing organisation and associated change processes, covering, among others, changes in organisational structure, purchasing's role and status, or technological support solutions (cf. 17; 20; 97; 98; 100; 155; 160; 163; 177).

### *Decision Making*

The smallest research area of the cluster of well-established research areas is discussed by 26 articles published since 1965, of which only one has been published since 2006. Noteworthy is the overwhelming dominance of articles from marketing journals (59%) and the fact that, despite its long history, this research area has not advanced to being in the focus of any of the journal groups. In terms of methodology, 52% of the articles use quantitative research, 26% are theoretical-conceptual, and only 22% employ a qualitative design.

*Decision Making* addresses different aspects of decision making in the purchasing function. While there is research on decision making of individual purchasing managers (cf. 157), the majority of decision-making processes are analysed on a functional level in relation to different organisational settings and purchasing contexts, such as small and medium enterprises, buying centres, or less important purchase items (cf. 13; 159; 179). Among the different stages of decision making, special attention is paid to information search as a particularly critical phase (cf. 152; 198). Further challenges of decision making include, for example, allocating decision responsibility, handling cross-functional interdependency, and balancing mathematical and qualitative experience-based decision algorithms (cf. 72; 142; 188).

Finally, there is research on different factors influencing decision making, such as the type of superordinate organisation that purchasing is embedded within or the use of tacit knowledge and technological support (cf. 65; 72; 115; 188), as well as research on the influence of previous purchasing decisions on subsequent ones (cf. 10).

## 2.4.2 Cluster 2: Well-Covered Research Areas Going Back to the 1970s

### *Strategic Performance & Measurement*

This research area is covered by 70 articles published since 1972, almost 90% of them since 1991. Half of the articles come from purchasing journals, while the others are almost equally distributed among the other four journal groups with operations management, general management, and miscellaneous journals placing emphasis on this research area. Contrasting the general trend, articles in this research area have relied mainly on quantitative research during the last 10 years, potentially due to this research area's "numbers-oriented" contents.

*Strategic Performance & Measurement* is focused on (1) purchasing performance and its antecedents and on (2) the measurement and control of purchasing performance.

Some articles conceptualise different aspects of purchasing performance, for instance in terms of internal service quality or purchasing synergy (cf. 112; 119; 129; 170; 183). Others discuss different antecedents of purchasing performance (cf. 171; 183), most often referring to structure, different types of strategies, and human resource management (cf. 29; 36; 50; 133; 182; 189), but also covering topics such as leadership (cf. 55), IT and performance measurement systems (cf. 71; 128), and purchasing maturity (cf. 170). Furthermore, the impact of purchasing performance on corporate performance is examined (cf. 47; 49; 70; 171; 183).

With concern for the application of performance measurement and control systems, some articles specify prerequisites for being able to measure the purchasing function's performance, such as clearly defined functional objectives and strategies (cf. 31; 80), while others focus on different contingent types and characteristics of performance measurement systems (cf. 45; 75; 112; 146). Some articles discuss different indicators of purchasing performance (cf. 14; 15; 21; 81; 139), whereas others focus on the challenges (cf. 49; 133) and antecedents of effectively implementing measurement systems (cf. 80; 128; 146). Finally, some research focuses on the performance of purchasing managers and its measurement on the single employee level (cf. 2; 44; 76).

### *Buying Centres & Purchasing's Status*

This research area is discussed by 44 articles published since 1972. As 70% of the articles have been published between 1980 and 2000, it represents the only research area in obvious and continuous decline. With 86% of all articles stemming from marketing journals, this research area constitutes marketing's main focus and, at the same time, one of the pioneer research areas, which has driven the overall development of research on purchasing organisation. Corresponding to the general trend of those earlier years, the majority of articles (52%) rely upon quantitative research designs.

*Buying Centres & Purchasing's Status* is a rather diverse research area and concentrates on (1) characteristics of buying centres, especially structure and composition; (2) typical decision-making processes within buying centres, considering purchase type and situation; (3) influence and power within buying centres, particularly of the purchasing function; and (4) buying centres' relationships within the company.

A first group of articles focuses on the characteristics of buying centres, such as the flow of communication and information (cf. 23; 105; 113), partially with a focus on corporate strategy and structure as a driving force (cf. 124; 205). Special attention is paid to buying centres' structure and composition and how these are influenced, for example, by buying process phases, organisational culture, or technological support systems (cf. 60; 61; 73; 93; 149; 161; 166; 167; 180; 185). Several articles address the influence of the purchased good or other aspects of the purchasing situation on buying centres' structure and composition (cf. 74; 113; 130).

Typical decision-making processes within the buying centre are analysed for different process stages, taking into account the general purchasing context (cf. 61; 135) and the particular types of product to be sourced (cf. 13; 53; 206). Furthermore, there is research on additional factors influencing decision making in buying centres, such as the impact of previous decisions on subsequent ones (cf. 10; 179).

The decision outcome depends upon the distribution of influence and power within the buying centre, for example among business functions (cf. 23; 61; 73; 166; 167) or hierarchy levels (cf. 206), but also among individual buying centre participants (cf. 91; 92; 111; 125; 135; 140; 141; 168; 204). Of special interest in this context is the influence and power exerted by the purchasing function and its managers (cf. 105; 107; 122; 181).

Finally, there is also research on the buying centre's relationships and reputation within the company, such as relations to strategic business units and other departments (cf. 12; 23; 85).

### 2.4.3 Cluster 3: More Recent and Less Covered Research Areas Going Back to the 1980s

#### *Leadership & Culture*

This young research area is covered by 43 articles published since 1987, more than half of them since 2001. While the clear majority of articles have been published in purchasing journals (60%), this area has not yet advanced to being a focus research area of any journal group. In contrast to other research areas, there is very little theoretical-conceptual research, which so far only represents 5% of all articles.

*Leadership & Culture* examines the importance of leadership and organisational culture for the purchasing organisation, addressing (1) the Chief Purchasing Officer (CPO), (2) general leadership behaviour, (3) top management involvement, and (4) organisational culture. Articles on the CPO as the leader of the purchasing function focus on the establishment, subsequent changes, and general characteristics of the CPO, such as reporting lines, typical background and qualifications (cf. 98; 99; 100; 103), and compensation issues (cf. 148; 212). Furthermore, the CPO position is analysed as an indicator for the purchasing function's changing roles and responsibilities (cf. 101; 102; 104), while the CPO is also identified as a driver of changes in purchasing organisation (cf. 96; 97; 177).

Research on general leadership behaviour in purchasing focuses mainly on the importance of leaders for purchasing teams (cf. 50; 86; 192; 194) but also addresses the effects of (visionary) leadership on internal service performance and cooperation (cf. 55), overall buying centre performance (cf. 64), and the role stress that is perceived by the individual purchasing manager (cf. 137). Furthermore, leadership is also identified as an important skill of purchasing managers (cf. 52; 68).

Top management's relevance for the purchasing function is analysed with respect to its involvement in different (special) purchasing situations and processes (cf. 113; 161; 199). Furthermore, its positive influence on the success of various measures and activities is identified, such as on the implementation and adoption of IT and Internet-based solutions and on the implementation of purchasing strategies (cf. 3; 134; 187; 196; 211).

The last domain focuses on the relevance of organisational culture for implementing purchasing strategies (cf. 160), for cooperating with other business functions (cf. 83; 134), for setting up buying centres (cf. 93), and for explaining and enhancing the individual purchasing managers' behaviour and skill set (cf. 77; 154; 157). In addition, the need for creating a fit between corporate culture and functional and individual performance measurement systems in the purchasing function is accentuated (cf. 44; 128; 141).

### *IT & E-Business*

This research area is discussed by 23 articles, which have mainly been published during the last 15 years (87%). In addition to 48% of the articles coming from purchasing journals, it is mainly miscellaneous journals (26% of all articles) that focus on this area. Potentially due to this heterogeneous journal group, articles rely mainly on qualitative (52%) and, only to a smaller extent, quantitative (22%) research.

*IT & E-Business* deals with aspects of IT systems and e-business solutions that are of relevance to the organisation of purchasing.

Concerning IT systems, relevant research focuses on their strategic relevance and impact on purchasing living up to its increasingly strategic role (cf. 19; 38; 71; 78; 174; 187).

Regarding e-business, some articles explore different types and characteristics of e-procurement systems (cf. 34; 149), particularly of (reverse) online auctions (cf. 6; 48). Others address different antecedents of successfully implementing e-procurement, such as system characteristics, perceived benefits, and users' process-orientation (cf. 3; 6; 16; 32; 126; 163), with a special emphasis on how to support users' system adoption (cf. 3; 8; 162; 163). Finally, there are articles dealing with the consequences of e-procurement systems, for example changing processes and structures as well as improving performance (cf. 6; 16; 60; 126; 149), with some focusing particularly on the evaluation of these outcomes (cf. 21; 32).

### *Organisational Learning*

The smallest research area is covered by seven papers published between 1995 and 2008. Four articles stem from purchasing journals and one each from SCM & logistics, operations, general management, and marketing journals. Representing only 3% of all 212 papers, this group's focus is clearly a side issue of organisational aspects of purchasing, which has been investigated dominantly by theoretical-conceptual and qualitative empirical contributions.

Of the seven articles, only three focus mainly on organisational learning and address the importance of knowledge value creation for knowledge-intensive purchasing projects (cf. 209), the effects of market-driven organisational learning on strategic sourcing outcomes (cf. 84), and the necessity for purchasing managers to enhance their pure performance-orientation by a learning-based mindset to cope better with changing environments (cf. 201). The remaining articles examine organisational learning's impact on fostering purchasing's strategic role and responsibilities (cf. 26; 37; 57), on clarifying buying centres' relationships (cf. 64), and on understanding the decision-making of purchasing managers (cf. 152).

## 2.5 Avenues for Further Research

According to our first research questions, we have identified 12 research areas which have emerged at different points in time and deal with distinct aspects of purchasing organisation. While their characterisation in the previous section provides a good indication of the body of knowledge currently available, the second research question on the need for further research and possibly relevant avenues for future research remains yet to be answered.

The question of whether we truly need further research on purchasing organisation cannot be answered by a mere extrapolation of the research areas' previous development because of its retrospective nature. Instead, we expect relevant trends influencing the future business world to provide a good indication of both emerging challenges for the purchasing organisation and the potentially resulting research needs in this field. They enable us to derive promising avenues for further research in each of the research areas by directing academia's attention to fields in need of valuable scientific contribution to managerial practice.

For this purpose, we have decided to focus on specific supply (chain) trends instead of rather generally framed megatrends, such as urbanisation and migration (e.g., European Environment Agency, 2011; UN HABITAT, 2012), whose specific implications for purchasing organisation would necessarily be rather vague. We draw mainly upon supply chain management articles to identify relevant trends for the years to come (Bowersox et al., 2000; Mangan and Christopher, 2005; Stank et al., 2011; Zografos and Giannouli, 2001), as previous findings on trends in supply management (Carter and Narasimhan, 1996; Trent and Monczka, 1998) are rather old and, therefore, possibly outdated. For triangulation purposes, we also considered select corresponding company publications as an additional viewpoint on relevant trends (Deutsche Post AG, 2009; Ernst & Young, 2009). The combination of those different sources yielded a comprehensive list of various trends, which unfold their influence on differing outcome levels with respect to the level of abstraction as well as the content focus. While some trends focus specifically on ecological or social aspects only, others cover broad developments, such as increasingly scarce resources, as opposed to trends referring to confined evolutions, such as the continuous outsourcing trend. Eliminating those trends that have no visible influence on the organisation of the purchasing function and consolidating the remaining aspects, we were able to identify 10 trends which will influence the purchasing organisation of the future. As displayed in Figure 2, these include corporate and supply chain trends as well as the fundamental trend towards an "online society" based on information and communication technologies.

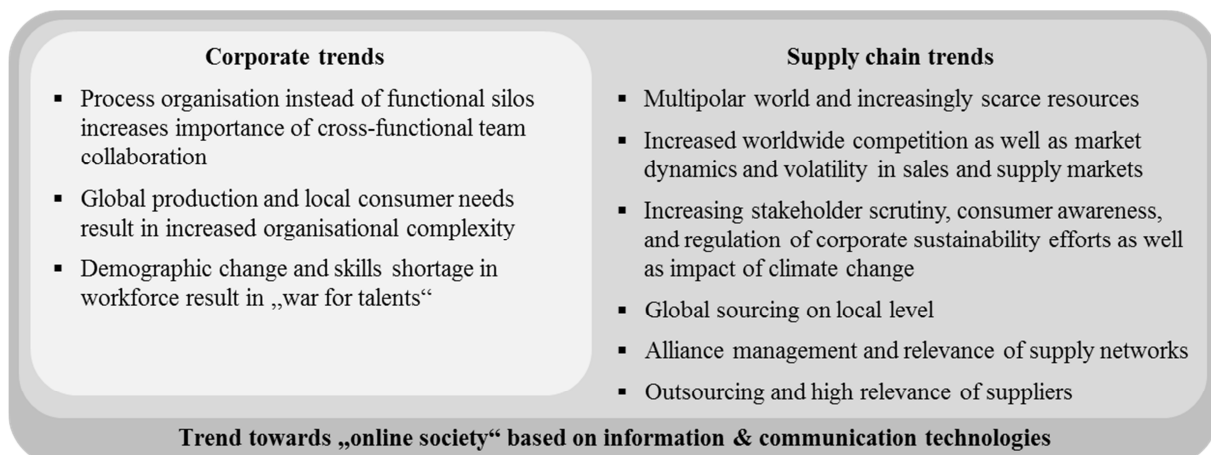


Figure 2: Relevant Trends for Research on Purchasing Organisation

Initially, we assumed that each trend would have a relevant effect only on confined areas of the purchasing organisation and, with that, only on select research areas. Therefore, we were surprised to find that almost all trends will have substantial effects on almost all research areas (see Appendix 6, which shows that each research area will be influenced by, on average, 9 out of 10 trends). More specifically, this implies that the need for future research will not be shaped by individual trends, but rather by bundles of trends and their combined effects. For identification of future research avenues in each research area, we thus always consider the entirety of all relevant trends. Their combined effects usually result in two to four main avenues for further research in each research area. In the subsequent description of these avenues, we sometimes mention single trends for illustration purposes; however, this does not imply that this trend would be the only relevant one to the particular research area and avenue.

Among the research areas, there are five which are not only influenced by bundles of trends but are additionally also driven by directly corresponding trends as indicated in Appendix D. Due to this additional direct linkage to one of the trends, *Structure & Formalities*, *Relationship Management*, *HR & Change Management*, *Leadership & Culture*, and *IT & E-Business* will be areas of particular relevance for future research.

*Structure & Formalities* corresponds directly to the increased organisational complexity resulting from global production and local consumer needs. Aside from research on this aspect, which is further exacerbated by global sourcing practices on a local level, there are additional research avenues in the realm of *Structure & Formalities*, especially (a) how to correspond to purchasing's growing importance and enlarged set of responsibilities by (more) effective and (more) efficient organisational structures, (b) how to deal with increasing market dynamics and volatility by providing purchasing with the structural adaptability and flexibility necessary to support the company's overall market responsiveness and competitiveness, and (c) how to ensure organisational structures that, at the same time, reflect the cross-functional

process orientation of companies on a corporate level and meet the expectations of the employees who are increasingly focused on motivating and encouraging job setups.

*Relationship Management* corresponds directly to the trend of cross-functionally oriented process organisations, which requires purchasing to increase its focus on interdepartmental cooperation and to intensify relationship management efforts. Besides this, several other trends, such as the growing strategic relevance of suppliers and alliances, reveal avenues for further research on how purchasing should face increasing requirements concerning stakeholder management. More specifically, there will be a need for future research on how to organise relationship management in order to (a) gain and maintain a “preferred customer” status in times of scarce resources; (b) increase stakeholder responsiveness and sensitivity facing increasing market dynamics and new responsibilities, such as the consideration of sustainability; and (c) make good use of the benefits of IT and communication technologies without risking the loss of valuable personal contacts internally and externally.

*HR & Change Management* relates directly to demographic change and the resulting “war for talents.” One first research avenue lies in the implications of the “war for talents” that requires purchasing to increasingly organise work processes according to employees’ expectations. This includes aspects such as career planning as well as part-time and home office solutions. In addition, particularly promising avenues for future research include (a) the need for further increased professionalism and enhanced skills to enable purchasing managers to cope with their strategic role and broad scope of responsibilities; (b) the need to, on the one hand, fully embrace opportunities resulting from IT and communication technologies to increase efficiency and free up capacities for new tasks, while, on the other hand, remaining well and personally connected with internal and external stakeholders thanks to extended relationship management capabilities; and (c) intensified change management competencies to cope with an increasingly dynamic future and various unpredictable challenges resulting from the identified virulent trends.

*Leadership & Culture* corresponds directly to the demographic change and “war for talents” as well as to the transformation towards an increasingly cross-functional process organisation. Among the most interesting avenues for further research are (a) the question of how to foster a purchasing working environment that proactively embraces change as an opportunity rather than a threat, (b) the need to combine elements of a participative leadership style and corporate culture that might appeal to an increasing number of employees without making compromises in terms of efficiency and effectiveness, and (c) the need to balance those employee expectations concerning a participative corporate culture with the challenges resulting



from a cross-functionally oriented process organisation, which requires a strong and potentially strict coordination of the involved business functions to fulfil defined goals and deadlines.

*IT & E-Business* proves to be a very timely research area that is directly connected to the trend towards the “online society.” Considering the need for quick decisions and responses to changing market environments, IT and e-business offer several interesting avenues for further research, such as (a) the design of e-sourcing solutions, for example to efficiently respond to market volatility by real-time spot sourcing; (b) the definition and usage of enhanced supplier relationship management tools to account for suppliers’ ever-increasing strategic importance; (c) compatibility with other functional IT and performance measurement systems without losing purchasing’s necessary autonomy to apply individually tailor-made IT solutions; and (d) how purchasing can provide valuable input to corporate information systems on sustainability efforts without having to subordinate and change all internal processes and structures to this enhanced need for additional information.

Beyond those research areas which also correspond directly to select trends, there are further promising avenues for research in the other research areas, which are, as previously explained, each influenced by a combination of several trends.

*Everyday Processes & Policies* is characterised by a need for “operational adaptability” that somewhat mirrors the concept of “structural adaptability” identified for *Structure & Formalities* on a more operative level. As the strategic relevance of purchasing increases and its operating environment becomes more competitive and complex, operational excellence in everyday working processes is imperative. Further research will be necessary to explore (a) how such operational excellence can be achieved while balancing the needs for clear-cut and well-defined responsibilities on the one hand and the requirements for flexibility, sufficient leeway, and responsiveness on the other hand; (b) how operational excellence can be guaranteed for additional challenges, such as the consideration of new supply markets or topics like sustainability; (c) how operational excellence can be achieved in a cross-functional working environment; and (d) how such operational excellence allows for a motivating and challenging design of interesting job profiles, reducing the number of purely administrative jobs to a minimum.

The rather new and so far little-researched area of *Organisational Learning* will gain further importance in a future that is shaped by continuous changes requiring an enlarged skills, knowledge, and capability set from employees. Particularly interesting avenues for further research, thus, refer to (a) the identification of skills and capabilities most relevant for

different types of purchasing employees, including a prioritization of the most important dynamic capabilities, (b) the means and processes to ensure continuous organisational learning and knowledge management within purchasing in a way perceived as valuable both by the organisation and by the individual employee, and (c) the reasonable usage of IT and communication technologies to facilitate organisational learning in a purchasing environment.

The future development of *Evolving Responsibilities* is already implicitly included in the other research areas, because the further increasing importance of purchasing forms the basis for most research avenues. Overall, interesting opportunities for further research in this field lie in investigating (a) the growing set of purchasing's responsibilities, such as the consideration of sustainability; (b) the transparent definition and clear attribution of these responsibilities within the purchasing function as well as among purchasing and other business functions; and (c) the extension of dynamic and ideally broadly diversified capabilities on a functional level to live up to the challenges arising for purchasing in a cross-functional process organisation.

*Decision Making* has not been in the focus of research in recent years, but with the purchasing environment changing continuously and quickly, efficient and effective decision mechanisms gain high strategic importance that induces different research opportunities. More specifically, avenues for future research lie in (a) the exploration of reliable, flexible, and (locally) adaptive decision mechanisms that enable quick responses while simultaneously considering longer-term-oriented goals, such as corporate sustainability; (b) the setup of transparent decision processes in a cross-functionally oriented process organisation relying increasingly upon a participative approach rather than hierarchical mechanisms; and (c) the usage of decision support instruments to benefit from potential advantages, while avoiding the risk of "over-mechanising" decision making.

*Strategic Performance & Measurement* represents a research area that has been continuously relevant over time, but its future is only impacted to a limited degree by the trends outlined above. Nevertheless, even in this research area there are promising avenues for future research, as several trends further increase the importance of effective and efficient purchasing performance measurement. Those performance measurement systems need to (a) include new aspects, such as sustainability in sourcing; (b) be increasingly flexible, adaptable, and prompt to cope with changing external market environments and intensified cross-functional cooperation; and (c) rely upon performance indicators which are defined in a motivating way to incite purchasing managers to top performance.

The future development of *Strategic Alignment* is primarily influenced by the general setting of an extremely dynamic and volatile environment that purchasing has to face. Taking into account the broad variety of anticipated changes as well as purchasing's strategic role and relevance on a corporate level, this research area will undoubtedly gain further importance in the future to come. Promising research avenues thus refer to ensuring and potentially speeding up the purchasing function's strategic alignment in view of an increasingly dynamic and volatile environment.

Finally, *Buying Centres and Purchasing's Status* is the only research area that has more historical value. As many aspects of this older research area have over time been integrated by *Relationship Management*, parts of it still remain important, albeit with a changed focus and under a different heading. However, future research on *Relationship Management* may still draw successfully on previous findings from *Buying Centres and Purchasing's Status*.

In sum, relating relevant trends to the previously identified research areas has enabled us to deduce various relevant avenues for further research on purchasing organisation. Although an aggregation of these multiple research needs to a handful of straightforward overall research imperatives might appear helpful, this would not do justice to the inherent complexity of organising the purchasing function. While it may be possible to identify some general future developments, such as purchasing's increasingly strategic role and responsibilities as well as the resulting need to adapt processes, structures, and competencies, such a simplification would improperly reduce the aforementioned multiplicity and complexity of the research avenues. Instead, researchers working on purchasing organisation will have to focus on rather specific topics, keeping in mind their interrelatedness to other aspects.

Besides identifying specific starting points for further research, the combination of the research areas with future trends offers some additional surprising insights. As already mentioned, we were intrigued to find that almost all trends are of significant relevance to almost all research areas. In a first step, this makes the prognosis of the research areas' future relevance more reliable. Being linked to a combination of trends, the research areas' future development is largely independent from the unlikely case that single trends might turn out to be irrelevant in the future. In a second step, this bundle of interrelations paints a realistic image of a complex context that offers different starting points for disentanglement and identifies various fields for future research.

## 2.6 Conclusion

Overall, this chapter has served a twofold purpose of providing a comprehensive overview of almost 50 years of purchasing research and 212 articles published in 45 journals throughout various scholarly communities and of offering an outlook on future research in light of new trends challenging the field purchasing organisation.

Against all of our expectations, the future relevance of the 12 identified research areas proves to be largely independent from each research area's previous development. Although their historical evolution differs quite notably and some research areas are clearly characterised by a declining number of publications in recent years, virtually all of them remain important and relevant in the future to come.

As a consequence, we, thus, do not expect a particular monothematic research focus on specific research areas or a concentration on few select aspects of purchasing organisation. As almost all research areas show interesting potential for future research, research on purchasing organisation needs to remain multifaceted and requires researchers in this field to keep different aspects and their interconnections in mind.

Moreover, there is a small methodological side effect to the realisation that all research areas remain important in the future despite partially declining publication numbers in the recent past. In the sense of data triangulation, the research areas' continuous relevance serves as a confirmation of the value of their inductive identification from the existing body of knowledge: The twelve outlined research areas are not of historical value, but offer notable insights for the future in terms of effectively and efficiently structuring and focusing research on purchasing organisation.

Finally, the plentiful research avenues provide a clear answer to the initial question of whether we truly still need additional research on the organisation of the purchasing function: There will indeed not only still be room, but also a need for future research to enhance and complement the findings of the past 50 years. We hope that this chapter will encourage and support such future research to focus on the most salient aspects and, thus, further advance the understanding of the purchasing function and its organisation.

### **3 Examining the Implementation of Sustainable Sourcing: Concept and Implications for the Purchasing Function**

### 3.1 Introduction

In today's business world, sustainability is an important topic for most organisations (Dahlmann et al., 2008; Tuttle and Heap, 2008). This involves simultaneous consideration of the economic, environmental, and social effects of business activities (Elkington, 1998; Góncz et al., 2007; Sikdar, 2003). While implementing corporate sustainability relies upon the involvement and aligned effort of several departments (Handfield et al., 1997; Wu and Dunn, 1995), the purchasing function is particularly apt to contribute to an organisation's overall sustainability (Tate et al., 2010). This is primarily due to its position at the starting point of the flow of materials into the company (Carter et al., 1998; Porter and van der Linde, 1995).

More specifically, each organisation is only as sustainable as its upstream supply chain (Handfield et al., 2005; Krause et al., 2009). Companies aiming for corporate sustainability, therefore, must involve their suppliers and establish environmental and social standards for supplier performance (Sharma and Henriques, 2005; Simpson et al., 2007; Tate et al., 2010). Consequently, corporate sustainability necessarily involves the implementation of sustainable sourcing by the purchasing function.

Meanwhile, purchasing has gained increased importance for many years due to companies concentrating on core competences and relying increasingly on outsourcing (Handfield and Pannesi, 1995; Harland et al., 1999; Monczka et al., 1993; Richardson, 1993). However, this growing strategic importance has not fundamentally changed the typical understanding of sourcing, which still primarily focuses on activities at the purchasing-supplier interface, such as supply base leveraging, supplier relationship development, and supplier performance evaluation (Narasimhan and Das, 2001).

Beyond doubt, close supplier relationships are essential in day-to-day business, because poor economic, environmental, or social performance in other organisations reflects mainly on the focal firm and will damage its reputation and sales volume more than that of suppliers (Handfield et al., 2005; Spekman and Davis, 2004). Challenging situations have been shown to reinforce these close relationships (Goldbach et al., 2003) and, as the implementation of sustainable sourcing can be considered to be one such challenging situation, it will likely further strengthen purchasing's pronounced supplier focus.

Today, however, this strong supplier focus does not suffice. Research has highlighted the need for purchasing to extend its scope of activities towards actively considering other stakeholders (e.g., Carter et al., 2000) and overcoming functional silos by increasing internal cooperation (e.g., Tassabehji and Moorhouse, 2008). Since the implementation of corporate sustainability further increases the importance of these competencies (Worthington et al.,

2008; Zheng et al., 2007), the deficits of the traditional supplier-focused understanding of purchasing become even more challenging when implementing sustainable sourcing. While the extant literature stresses the general importance of considering different stakeholders when implementing sustainable sourcing, it does not identify the most salient stakeholders or provide an operationalisation of sustainable sourcing. Furthermore, it fails to clarify which consequences or additional demands arise from these most salient stakeholders for the purchasing function.

The question of whether the purchasing function has to change due to and in the course of implementing sustainable sourcing shall be addressed by answering the following research questions, thus bridging this research gap. These questions also correspond to existing calls for research on the relationship between purchasing's cross-functional cooperation and the implementation of different sustainable sourcing practices (Carter, 2004; Carter and Carter, 1998; Carter et al., 1998; Carter and Jennings, 2004).

1. *How can the concept of sustainable sourcing be operationalised?*
2. *Which stakeholders constitute relevant drivers to the implementation of sustainable sourcing?*
3. *How is the purchasing function's need to cooperate internally and externally influenced by these relevant stakeholders?*

The remainder of the chapter provides a description of the methodology, followed by a typology of sustainable sourcing and potentially relevant stakeholders. The subsequent sections outline our conceptual framework, the corresponding propositions, and a discussion connecting the salient stakeholders to different sustainable sourcing profiles. Consequences of implementing sustainable sourcing for purchasing's need for cooperation will be addressed before concluding the chapter with limitations and implications for future research and managerial practice.

## 3.2 Methodology

In both the realm of sustainable supply chain management and sustainable sourcing, there have been calls for more theory development as a basis for future empirical research (e.g., Pagell et al., 2010; Seuring and Müller, 2008; Tate et al., 2010). In this sense, conceptual theory-building methods can create a balance between inductive and deductive research and can help academics to guide managerial practice (Meredith, 1993).

In this chapter, a conceptual framework of sustainable sourcing is developed as “a collection of two or more interrelated propositions which explain an event, provide understanding or suggest testable hypotheses” (Meredith, 1993, p. 7). Following Whetten (1989), we aim to further existing theory by detailing the *what*, *how*, *why*, *who*, *where*, and *when* of the phenomenon of interest – the need for the purchasing function to change due to and in the course of implementing sustainable sourcing. After providing an operationalisation of sustainable sourcing, we identify the relevant stakeholders to be considered for its implementation (these factors that logically explain the phenomenon of interest are referred to by Whetten as the *what*). Then, causal relationships are established concerning the stakeholders’ influence on the implementation of sustainable sourcing (*how*). The underlying logic (*why*), or the “theoretical glue” (Whetten, 1989, p. 491), is provided by stakeholder theory, while the aspects of *who*, *where*, and *when* (i.e., the contextual boundaries of the phenomenon of interest) are addressed throughout the conceptual framework and the subsequent discussion. This procedure also corresponds to Carter’s (2011) recently proposed guidelines on high-quality conceptual theory development.

As a basis for theory development, we conducted a literature review following a “systematic, explicit and reproducible design for identifying, evaluating and interpreting the existing body of recorded documents” (Fink, 2005, p. 3). To summarise relevant existing research and identify its conceptual content, we used a key word search via Emerald and EBSCO databases, limiting ourselves to papers published in peer-reviewed journals on sustainable, environmental, and social aspects of sourcing and the purchasing function. We established an extensive compilation of the relevant literature by working with specific terminology, such as “sustainable procurement,” “sustainable sourcing,” and “sustainable supplier management.” As in previous studies (e.g., Seuring and Müller, 2008; Srivastava, 2007), we additionally used the snowballing technique and examined the references of relevant papers to identify further relevant articles.



### 3.3 The Concept of Sustainable Sourcing

A small but growing body of research has discussed different aspects of sustainable sourcing (Pagell and Wu, 2009; Tate et al., 2010), such as select antecedents (Reuter et al., 2010) or specific measures of a successful implementation of sustainable sourcing (Pagell et al., 2010). As it considers economic, environmental, and social criteria in sourcing decisions at the same time, this research differs from prior literature that has mainly explored either (1) social (e.g., Cooper et al., 2000; Leire and Mont, 2010; Park and Stoel, 2005) or (2) environmental aspects within sourcing (e.g., Carter et al., 1998; Min and Galle, 2001; Walton et al., 1998).

Research on social aspects of sourcing often deals with assuring ethically sound supplier-buyer relationships (e.g., Svensson and Baath, 2008), establishing codes of conduct (e.g., Mamic, 2005), preventing child labour (e.g., Winstanley et al., 2002), or considering minority-owned suppliers (e.g., Krause et al., 1999). Research on environmental aspects of sourcing initially centred on purchasing's responsibility to facilitate recycling, reuse, and resource reduction (e.g., Carter and Carter, 1998; Min and Galle, 1997) and subsequently connected environmental sourcing to strategic topics, such as new product development or strategic risk minimisation (e.g., Bowen et al., 2001a; Handfield et al., 2002; Vachon and Klassen, 2006; Zsidisin and Siferd, 2001).

Some research, particularly in the field of corporate social responsibility, combines findings from both areas to establish somewhat comprehensive concepts (Carter, 2004, 2005; Carter and Jennings, 2002, 2004), claiming that purchasing should consider various environmental and social criteria. However, the relationship between these aspects and the basic prerequisite of economic performance in sourcing is not explicitly specified (e.g., Harwood and Humby, 2008; Maignan et al., 2002; Roberts, 2003; Simpson et al., 2007).

These research streams have produced a multitude of different definitions and terminologies of sustainable sourcing, describing similar approaches with different emphasis. So far, no single definition of sustainable sourcing has been established that coins a comprehensive term reflecting economic, environmental, and social aspects alike. Only recently, Pagell et al. (2010, p. 58) presented a definition which might fill this void by detailing sustainable sourcing as “managing all aspects of the upstream component of the supply chain to maximise triple bottom line performance,” with the latter referring to a measure of business' impacts on people, profits, and the environment (Kleindorfer et al., 2005). The tripartite approach is also adopted by Reuter et al. (2010), who demand the integration of environmental and social criteria into supplier management processes when referring to “sustainable global supplier man-

agement.” Similarly, Tate et al. (2010) require sustainable sourcing to ensure the selection of suppliers that (1) provide good economic value at competitive costs, (2) meet high environmental standards, and (3) enforce the focal organisation’s social values and standards.

Although these definitions outline sustainable sourcing in general, they do not specifically operationalise when purchasing activities can be considered sustainable or not. Neither the relationship among the three sustainability dimensions nor their respective relative importance is addressed; for example, it remains unclear whether neglecting one dimension in sourcing can be overcompensated by particularly emphasizing one of the remaining two dimensions. This vagueness can be clarified, however, by referring to sustainability’s explicitly tripartite character, which consists of considering all three sustainability dimensions simultaneously. Accordingly, we consider a company to employ sustainable sourcing only if all three sustainability dimensions (i.e., economic, environmental, and social sustainability) are considered in sourcing processes (such processes are not limited to supplier selection, but also include supplier development and all other processes associated with a holistic supplier management).

This necessary condition for sustainable sourcing practices is further complemented by the additional prerequisite to apply sincere sustainability criteria. In order not to represent mere “moral alibis,” sustainability criteria need to go beyond legal requirements and pose restrictions that factually reduce the degrees of freedom in sourcing decisions. For example, the act of considering social sustainability in sourcing by refusing child labour but at the same time defining children to be persons aged three years or younger would not qualify as sustainable sourcing. While such a “fig leaf” sourcing practice may be used for green or social washing, it would neither fulfil the socio-political goal of reducing child labour nor significantly restrict sourcing options in terms of materials to be bought or suppliers to be listed.

When detailing sustainable sourcing further, added value to academia and practice is only generated by an operationalisation that is theoretically generalisable and reflects the current sourcing practice. Accordingly, we clarify further that, once all sustainability dimensions are sincerely considered in sourcing beyond legal requirements, there is not one single type of sustainable sourcing, but rather a wide spectrum of various profiles. Different sustainable sourcing archetypes can be distinguished by the emphasis that is placed on considering economic, environmental, and social sustainability criteria during sourcing processes.

In practice, such an emphasis on each of the three sustainability dimensions can be achieved in two ways: First, by increasing the number of sustainability criteria that are considered in certain sourcing processes, and second, by increasing the number of sourcing

activities in which the particular sustainability criteria are explicitly considered. As displayed in Figure 3, the combination of both the number of criteria and the number of activities considering sustainability allows for classification of the emphasis in that particular sustainability dimension as strong, moderate, or weak.

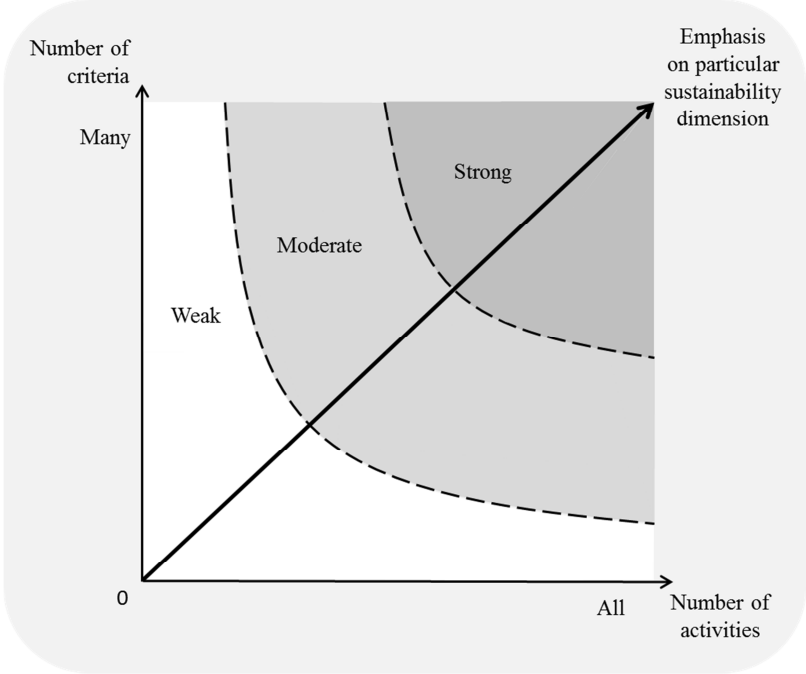


Figure 3: Derivation of the Emphasis Put on One Sustainability Dimension

A strong emphasis on environmental sustainability, for example, is achieved as companies focus strongly on both approaches and consider numerous environmental criteria in numerous sourcing activities. A moderate emphasis on environmental sustainability is characterised by either considering a moderate number of environmental criteria in a moderate number of sourcing activities or by considering many [few] environmental criteria in few [many] sourcing activities. Finally, a weak environmental sustainability emphasis occurs with consideration of few environmental sustainability criteria in few sourcing activities.

As different degrees of emphasis are possible for all three sustainability dimensions, sustainable sourcing profiles can be characterised within a three-dimensional coordinate system. As an extension of Figure 3, Figure 4 distinguishes three degrees of emphasis – strong, moderate, and weak – for all three sustainability dimensions, with the axes referring to absolute levels of emphasis on sustainability in sourcing.

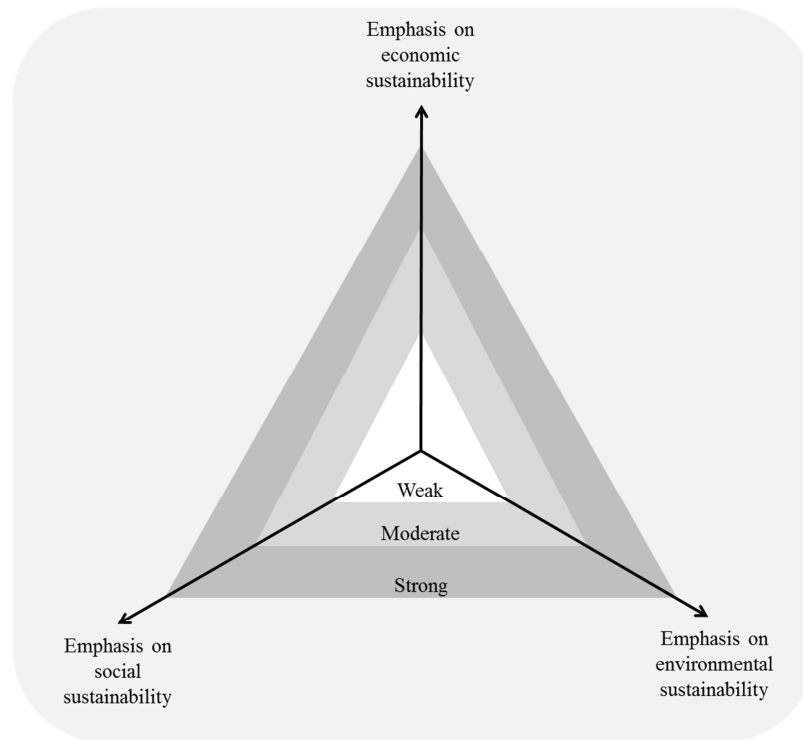


Figure 4: Degrees of Emphasis on All Three Sustainability Dimensions

In practice, companies do place special emphasis on select sustainability dimensions in sourcing. This corresponds to the finding that corporate sustainability efforts should focus on particular environmental and social problems, which the specific organisation can help to resolve and from which it can gain competitive benefit (Porter and Kramer, 2006). The resulting complexity of different sustainable sourcing practices being implemented in various ways is reflected in the distinct archetypes of sustainable sourcing outlined below. For the purpose of simplification, these profiles only represent the respective extreme configurations, although the different degrees of emphasis on each sustainability dimension can, of course, also be found within each archetype.

As displayed in Figure 5, we term companies as “minimalists” which consider all sustainability dimensions in sourcing according to a minimal level beyond legal requirements, but do not particularly emphasise any of the three sustainability dimensions. Among those minimalists are, for example, (1) organisations that follow a sustainability-oriented approach at a corporate level, but do not regard purchasing as a strategically strong lever in this context, and (2) companies that have an overall weak sustainability orientation or focus on only few isolated activities in each sustainability dimension.

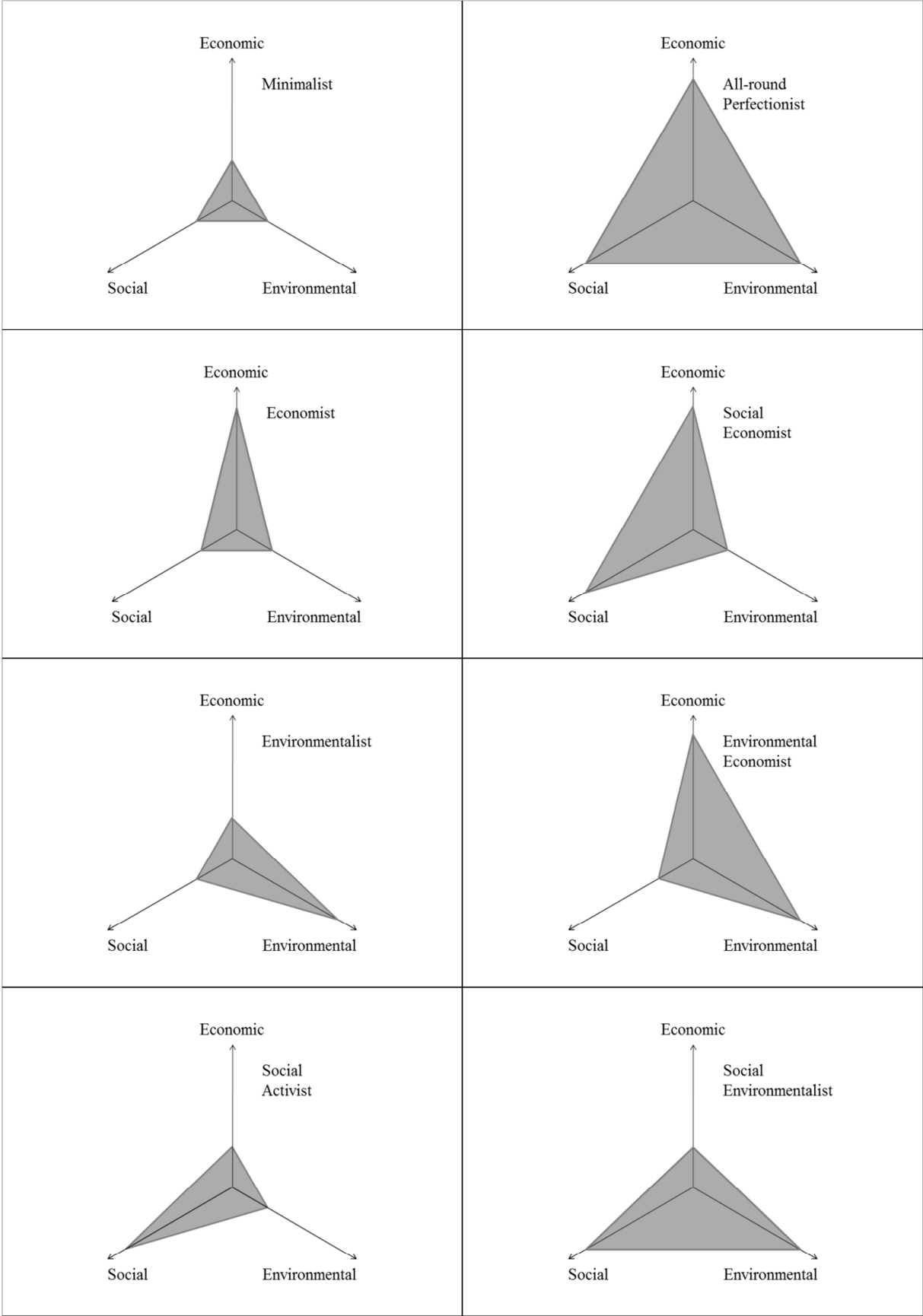


Figure 5: Archetypes of Sustainable Sourcing Profiles

At the other end of the spectrum, companies putting strong emphasis on all three dimensions are deemed the “all-round perfectionists.” This type includes “best practice” sustainability exemplars, which likely strive for excellence in sustainability in general and in sustainable sourcing in particular. Contrasting those two extremes, there are three specialist profiles characterised by a stronger emphasis on one sustainability dimension and a weaker emphasis on the respectively remaining two dimensions. The profile type we term “economist” places special emphasis on the economic dimension while incorporating only low standards of social and environmental sustainability. By ensuring a good price-performance ratio at present without compromising the future long-term existence of important suppliers, economists balance short-term financial interests with long-term strategic considerations on how to support a competitive and financially healthy supply base. Examples for this sustainable sourcing profile can be found in different settings, in which traditionally established short-term purchasing price considerations are complemented by longer-term economic sustainability concerns. In one extreme, economists may be found in public procurement from the defence sector, which places special emphasis on ensuring economically sustainable supply relationships due to the special characteristics of long-term reliability, high investments, and confidentiality related to new equipment. Furthermore, economists may be focal companies in a strategic alliance with select suppliers, such as big OEMs with small- or medium-sized suppliers in the automotive industry.

The other two specialist profiles, the “environmentalist” and the “social activist,” refer to organisations focusing on either environmental or social aspects of sourcing, while meeting lower levels of sustainability in the respective two other domains. As in the case of, for example, Tata Steel, one of the world’s largest steel producers, environmentalists typically focus on systematically evaluating environmental supplier performance in terms of usage of natural resources and emission of environmentally relevant pollutants and waste (Tata Steel, 2009). Social activists, such as the globally operating clothing company H&M, focus on considering the working conditions at the suppliers’ plants and ensuring the enforcement and respect of the focal company’s code of conduct and relevant corporate values (Hennes & Mauritz AB, 2011).

In addition to those specialisations, it is also possible for companies to focus on two of the three dimensions resulting in the sustainable sourcing profiles “environmental economist,” “social economist,” and “social environmentalist.” During the process of implementing sustainable sourcing, companies can pass through several archetypes over time. One current example of such a development is provided by Dow Chemicals, which has very recently extend-

ed its historically environmentally focused sustainability approach to an increased emphasis on the social aspects of sustainability, resulting in a social environmentalist profile (Dow Chemical Company, 2011).

All sustainable sourcing profiles described above serve to conceptualise sustainable sourcing practices as they are or can be carried out in practice. The motivation dictating which particular profile companies pursue will be discussed in subsequent sections of the chapter.

### **3.4 Stakeholder Management and Sustainable Sourcing**

The importance of stakeholder management for sustainability or related corporate social responsibility efforts has been the subject of many articles (e.g., Barnett, 2007; Sen et al., 2006) and is particularly well demonstrated in the definition of corporate sustainability by Dyllick and Hockerts (2002, p. 131) as “meeting the needs of a firm’s direct and indirect stakeholders... without compromising the ability to meet the needs of future stakeholders as well.” In the context of sustainable sourcing, little previous research has approached stakeholder concerns explicitly (Ehrgott, 2009; Foerstl et al., 2010; Pagell et al., 2010), whereas the majority has focused on identifying drivers of implementing sustainable sourcing practices (e.g., Carter and Carter, 1998; Carter and Dresner, 2001; Harwood and Humby, 2008; Min and Galle, 2001; Roberts, 2003). These drivers refer to external actors of a company, such as government regulation, NGO pressure, or customer requirements (Carter and Jennings, 2004; Sharma and Henriques, 2005) as well as internal aspects, such as supply management capabilities (Bowen et al., 2001b; Paulraj, 2011). Following the definition of stakeholders as “any group or individual who can affect or is affected by the achievement of the organisation’s objectives” (Freeman, 1984, p. 46), the drivers of sustainable sourcing mentioned above can also be considered to be stakeholders of the purchasing function.

Combining the stakeholder concept with activities of the purchasing department builds on previous research in a twofold manner: First, as stakeholder influence is an important driver for implementing sustainability on a corporate level (Brown et al., 2006; Handfield et al., 2005; Sharma and Henriques, 2005), it can be assumed that stakeholders are also relevant on the functional level. Second, the purchasing department has formerly been characterised by its “distinct interaction with a broad set of stakeholders, including buyers, suppliers, contractors, the community, and internal employees in most of the other functional areas of the company” (Carter and Jennings, 2004, p. 146).

Accordingly, the theoretical framework for this chapter is provided by stakeholder theory, which highlights the importance of a firm's relationships with a broad set of individuals and organisations beyond only shareholders (Freeman, 1984). The positive effects of stakeholder management are explained by arguing that firms with good stakeholder relationships will have a competitive advantage over others due to reduced agency and transaction costs (Jones, 1995). Furthermore, stakeholder management is a key success factor for both environmental management (Hart, 1995) and social sustainability (Ehrgott, 2009). Thus, successful implementation of sustainable sourcing can depend on good stakeholder management.

The clarification of “who and what really counts” (Mitchell et al., 1997, p. 853) among potentially relevant stakeholders is provided in the theory of stakeholder identification and salience by Mitchell et al. (1997). Stakeholder salience perceived by managers, i.e. “the degree to which managers give priority to competing stakeholder claims” (Mitchell et al., 1997, p. 854), depends on the stakeholder's power over the firm, the legitimacy of its relationship with the firm, and the urgency of the stakeholder's claim. The stakeholder's power to influence the firm depends upon the degree to which it is able to impose its will in the relationship (Etzioni, 1965; Pfeffer, 1981). Legitimacy refers to “a generalised perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions” (Suchman, 1995, p. 574); and urgency can be defined as “the degree to which stakeholder claims call for immediate attention” (Mitchell et al., 1997, p. 867).

According to this theory, which has been widely used in environmental management literature (e.g., Eesley and Lenox, 2006; Fernández-Gago and Nieto-Antolin, 2004; Harvey and Schaefer, 2001; Jawahar and McLaughlin, 2001), those stakeholders will be perceived as particularly salient, which are characterised by power, legitimacy, and urgency (Mitchell et al., 1997). As only the potentially relevant stakeholders for implementing sustainable sourcing will be considered in our framework, legitimacy is given for all stakeholders, because the consideration of sustainability itself constitutes a “socially constructed system of norms, values, beliefs, and definitions” (Suchman, 1995, p. 574). Consequently, all identified stakeholders are at least legitimate, and their salience may only vary according to their power and urgency to impose different challenges on the purchasing function to change due to and in the course of implementing sustainable sourcing.



### 3.5 Conceptual Framework and Research Propositions

In the context of corporate sustainability, shareholders, employees, managers, customers, suppliers, regulatory authorities, NGOs, and competitors have been identified as especially important stakeholder groups (Buysse and Verbeke, 2003; Henriques and Sadosky, 1999; Murillo-Luna et al., 2008). For the purpose of establishing stakeholder classification in the specific context of sustainable sourcing, we group potentially salient stakeholders according to established supply chain management categorisations (Chen and Paulraj, 2004) into company-internal actors, actors external to the company but internal to the supply chain, and supply chain-external actors (cf. Figure 6). Subsequently, we first analyse the respective salience of each stakeholder group (i.e., its ability to place claims concerning the implementation of sustainable sourcing and to ensure that those claims are taken seriously). The content of these stakeholders' claims, including a potential focus on select sustainability dimensions, will be addressed in section 3.6.



Figure 6: Stakeholder Classification

#### *Company-internal stakeholders*

Just as corporate management implements corporate strategies, the *functional management* implements corresponding functional strategies. As such, the purchasing function might have both the power and urgency of a salient stakeholder, because the decision to apply economic, environmental, and social sustainability in sourcing could be taken in the same way that purchasing decides other aspects of sourcing strategy (e.g., choice of local vs. global or single vs. multiple sourcing).

In practice, however, it is questionable whether the purchasing function would implement sustainable sourcing on its own accord without being requested by corporate guidelines. Although academia found environmentally and socially oriented suppliers to contribute to increased economic profits of the buying organisation (Krause et al., 2009; Porter and van der Linde, 1995), practitioners mostly presume the original purchasing tasks of procuring supplies at the best available quality at a minimum cost to be impaired by the additional consideration

of environmental and social criteria (Bowen et al., 2001a). Despite holding the power, a typical purchasing function, whose objectives centre exclusively on cost, quality, and reliability, will most probably not feel the urgency to implement sustainable sourcing on its own accord. However, if single purchasing managers with a certain degree of power within the department – as, for example, the Chief Purchasing Officer – strive for implementing sustainable sourcing due to sustainability-oriented norms and values, professional capabilities, or other individual characteristics (Bowen et al., 2001b; Harwood and Humby, 2008; Paulraj, 2011), the purchasing function's overall attitude towards implementing sustainable sourcing may be changed notably. We therefore propose the following:

*P<sub>1</sub>: The autonomous functional purchasing management only has a positive effect on the implementation of sustainable sourcing or on corporate management to adopt sustainability strategies if sustainable sourcing is promoted by a sustainability-oriented and influential member of the purchasing function.*

*Corporate management* is expected to be a particularly salient stakeholder for the implementation of sustainable sourcing, because, due to hierarchical power, its requests constitute an urgent driver to all functional activities. In the context of sustainable sourcing, corporate management's decision to consider sustainability could occur as a result of either (sustainability) strategy development or corresponding corporate values and organisational culture (Hambrick and Mason, 1984).

Matching the market situation with proper strengths and weaknesses, corporate business strategy defines how to improve the overall company performance during a given time span (Mintzberg and Waters, 1985). As the positive financial effects of environmentally and socially responsible business activities rely upon the inclusion of sustainability in corporate business strategy (Hart, 1995; Sharma and Henriques, 2005), companies may consider the introduction of corporate sustainability strategies as one success factor in today's market environment. Following the general logic of typical top-down strategy implementation processes, this would thus lead to corresponding functional sustainability efforts (Bourgeois and Brodwin, 1984; Lovas and Ghoshal, 2000).

When there is no corporate sustainability strategy, corporate management's salience depends upon the presence of a sustainability-oriented corporate culture or corresponding corporate values. As those represent the company's self-conception and guide corporate management behaviour (Sharma, 2000), corporate values and culture which only implicitly concern sustainability can also result in "sustainability-oriented" behaviour.

Overall, corporate management acts as a salient driver for implementing sustainable sourcing either by introducing a corporate sustainability strategy on a functional level or by providing a compelling role model and enforcing corporate culture and values in all relevant corporate decisions.

We therefore propose the following:

*P<sub>2</sub>: Corporate management only has a strong positive effect on the purchasing function to implement sustainable sourcing if there is a corporate sustainability strategy or a sustainability-oriented corporate culture.*

Other corporate functions can influence what and how purchasing is sourcing via changing demand requirements in their role as *purchasing's internal customers*; i.e., departments receiving products or services by purchasing (Nagel and Cilliers, 1990). Usually, such changing expectations of purchasing's internal customers do not simply materialise, but rather result from (external) market opportunities or (internal) pressure. While internal pressure based upon guidelines and corporate needs may lead other business functions to insist on the implementation of sustainable sourcing, it usually originates from a change of business (sustainability) strategy or processes and spreads within the organisation via top-down procedures. As such, internal pressure is sufficiently covered by stakeholder corporate management and proposition *P<sub>2</sub>*.

Relevant market opportunities arise, for example, when marketing and sales can create and shape customer demand for (future) sustainable products. Especially in market-oriented companies, new market prospects will provide marketing and sales with the necessary power and urgency to be perceived as a salient stakeholder both by the purchasing department to implement sustainable sourcing corresponding to (future) product requirements, and by corporate management to adopt sustainability strategies (Jaworski and Kohli, 1993; Kohli and Jaworski, 1990; Narver and Slater, 1990). In this case, changing demands of purchasing's internal customers are directly related to the external customer, whose existing and future expectations will be passed on to purchasing and corporate management by marketing and sales as the boundary-spanning functions towards the consumer. We therefore propose the following:

*P<sub>3</sub>: Marketing and sales will play a mediating role in relaying the effect of customers to the purchasing function to implement sustainable sourcing and to corporate management to adopt sustainability strategies.*

### *Supply chain-internal stakeholders*

In general, *customers* have a very important role in all market-oriented companies, as the revenues are provided by the customers' buying decisions. The power and urgency of customers also explain why customer initiatives have been identified repeatedly as an important driver for implementing sustainable sourcing practices (Carter and Carter, 1998; Carter and Dresner, 2001; Carter and Jennings, 2004). Consequently, customer expectations enjoy high priority and are fulfilled as closely as possible, even when requiring their supplier (the focal company in our framework) to adhere to certain standards which allow the customers to fulfil their own strategic goals or to correspond to their own customers' expectations. One example of the power of customer requirements concerning environmental sustainability is provided by the consumer boycott following Shell's intended disposal of the Brent Spar oil facility in the North Sea. This not only prompted Shell to change its plans and reuse parts of Brent Spar in subsequent platforms but also sent a clear signal to the complete industry.

Relating to sustainable sourcing, it is true that not all customers require sustainability efforts from their suppliers. Some do not perceive the necessity to consider sustainability as a buying criterion, while others simply lack the willingness to pay extra for sustainability. However, customer requirements concerning sustainability are not unusual either, since companies rely upon other members of the supply chain, particularly their suppliers, to support their own corporate sustainability strategies (Handfield et al., 2005). Taking into account the ever-increasing role of sustainability in the corporate context (Bansal, 2005), it can be expected that corresponding customer requirements will rather gain importance in the near future. Accordingly, customers' sustainability requirements do not only influence the implementation of sustainable sourcing but also impact corporate management in ascertaining an adequate strategic positioning on the corporate level. We therefore propose the following:

*P<sub>4</sub>: Customers have a strong positive effect on the purchasing function to implement sustainable sourcing and on corporate management to adopt sustainability strategies.*

Given the purchasing department's boundary-spanning role towards the supply side of a company (Cavinato, 1991; Webster, 1992), *suppliers* constitute an important stakeholder of purchasing. Research findings on suppliers driving the implementation of sustainable sourcing have been somewhat ambiguous. While some studies have proven suppliers to have no influence on the buying organisation (e.g., Carter and Dresner, 2001), others have shown positive effects on the implementation of sustainable sourcing, depending on the supplier's relative size compared to the focal firm (e.g., Sharma and Henriques, 2005). As for customers, it is

conceivable that those suppliers that depend strongly on their reputation and image will push sustainability topics more than others. Fearing to suffer from irresponsible, non-sustainable behaviours of business partners (like their customers; i.e., the focal organisation in our framework) being associated with their brands and image (Handfield et al., 2005), these suppliers are most prone to place sustainability claims on the focal organisation.

The urgency of suppliers in general, however, is rather low, since their claims rarely call for “immediate attention” (Mitchell et al., 1997, p. 867) unless the respective supplier holds a certain power over the focal company. Usually, a buying organisation defining supplier management guidelines and imposing supplier assessment criteria might easily consider any supplier as obtrusive and impertinent, which actively sells its sustainability to be regarded as a general sourcing criterion. While those suppliers lack the necessary power and thus do not constitute salient stakeholders, others may be in a different position due to long-term, strategic partnerships or a high dependence of the focal firm on single suppliers with strong market power (Caniëls and Gelderman, 2007; Cox, 2001). Such suppliers that, for example, own a very strong brand, could choose to supply only “approved” (retail) customers (e.g., those with sustainability practices) in order to proactively manage reputational risks and enhance their own brand value and standing. This was the case for Lundbeck, the Danish pharmaceuticals company that has recently decided to deny selling its drug pentobarbital to U.S. authorities which ordered it for the purpose of lethal injections. Facing major publicity damages and following the example of corresponding European legislation (Batty, 2011), Lundbeck has changed its distribution channels to guarantee that its product is sold solely for the purpose of curing epilepsy and not – in a higher dose – for executing capital punishments (Lundbeck A/S, 2011).

In sum, suppliers can act as salient stakeholders for the implementation of sustainable sourcing depending on their power over the focal organisation. We therefore propose the following:

*P<sub>5</sub>: Suppliers and their sustainability initiatives only have a positive effect on the purchasing function to implement sustainable sourcing and on corporate management to adopt sustainability strategies if they have strong supplier power.*

#### *Supply chain-external stakeholders*

A company’s market orientation also includes continuous and close observation of its *competitors’* activities and strategies as central elements of the market environment, which should be reflected in corporate business strategies (Narver and Slater, 1990). While competitors might not have the literal power to dictate sustainability behaviours to the focal organisa-

tion, a growing number of competitors implementing sustainable sourcing and thereby establishing certain sustainability industry standards can effectively put pressure on the focal organisation (DiMaggio and Powell, 1983; Meyer and Rowan, 1977). Complementing this certain degree of power, competitors also dispose of urgency, since their actions call for immediate responses in order to retain customers and maintain competitive offerings. In this sense, competitors act as somewhat salient stakeholders on a corporate level, also influencing other market participants, such as customers and suppliers. While corporate management will certainly monitor competitor behaviour and react accordingly, it would be highly unusual for the purchasing function to do so autonomously on the functional level. Competitors' sustainability activities would therefore be recognised by corporate management, which can then decide to implement different sustainability measures accordingly.

Overall, competitors thus act only indirectly as salient stakeholders for the implementation of sustainable sourcing through influencing corporate management, customers, and suppliers. We therefore propose the following:

*P<sub>6</sub>: Competitors only have a positive effect on the implementation of sustainable sourcing if they influence corporate management, customers, or suppliers to adopt sustainability strategies.*

Legislation and other legal provisions by *regulatory authorities* have the potential to dramatically influence corporate activities (Fowler and Hope, 2007; Sarkis, 1998; Sharma and Henriques, 2005). In the context of sustainable sourcing, one of the initial impulses for considering environmental aspects in sourcing originated from the need for legal compliance concerning emission and waste reduction (Buchholz, 1993; Handfield et al., 2002; Lamming and Hampson, 1996; Min and Galle, 1997; Walton et al., 1998). Furthermore, there are various laws on social aspects of business activities, such as minimum wages and specification of working conditions, as well as laws targeting economic solidity and longevity of corporations, such as taxation rules on depreciation and amortisation of fixed assets or provisions for liabilities and charges. All of those regulations have undoubtedly exerted strong influence on corporate behaviour, just as, for example, the European Union's directive on Waste Electrical and Electronic Equipment has effectively obligated producers of electronics goods to provide for electronic scrap recycling (Walther and Spengler, 2005).

However, research findings on the salience of regulatory authorities for the implementation of sustainable sourcing today are very ambiguous (Majumdar and Marcus, 2001). Some identify regulatory authorities as a driver of sustainable sourcing practices (Dahlmann et al., 2008; Min and Galle, 2001; Porter and van der Linde, 1995), while others have found it to

have no effect (Carter and Carter, 1998), or even hamper sustainable sourcing (Dean and Brown, 1995).

Despite this ambiguity, we acknowledge that regulatory authorities are characterised by both power and urgency, and thus act as salient stakeholders for the consideration of sustainability in corporate business activities. As regulatory authorities will most probably not issue regulation explicitly concerning sustainable sourcing, corresponding laws will be considered by corporate strategy as soon as they pose relevant constraints to be addressed at a corporate, strategic level. This will also be the case for suppliers, customers, and competitors who need to cope with the same preconditions. Overall, regulatory authorities thus act indirectly as salient stakeholders for sustainable sourcing by influencing corporate management, customers, suppliers, and competitors. We therefore propose the following:

*P7: Regulatory authorities only have a strong positive effect on the implementation of sustainable sourcing if they influence corporate management, customers, suppliers, or competitors to adopt sustainability strategies.*

By effectively disclosing irresponsible corporate behaviours, NGOs have continuously gained importance and become one of the major sources of information on companies' sustainability performance (Reuter et al., 2010). Perceived as objective and honest, NGOs enjoy a good reputation and high trustworthiness, attributes which provide them with the necessary power and urgency to constitute salient stakeholders. With respect to sustainable sourcing, different NGOs will pursue different agendas according to their respective mission and focal interest; some will focus mainly on environmental sustainability (e.g., Greenpeace), while others address social (e.g., Amnesty International) or economic sustainability (e.g., Attac, fighting the negative effects of globalism and capitalism).

Independently from their respective missions, NGOs can efficiently shape public opinion and exert strong pressure on the focal firm's corporate management to renounce using bad (sourcing) practices and henceforth ensure responsible behaviour (Winstanley et al., 2002; Worthington et al., 2008). Furthermore, NGOs can prompt the focal organisation's stakeholders to prevent such practices in the future, in the case of regulatory authorities through broader or stricter regulation, and in the case of customer and suppliers through reducing interactions with the focal organisation. Finally, disclosing irresponsible behaviour also warns relevant competitors and serves as a convincing incentive to avoid irresponsible (sourcing) practices. One compelling example of NGO influence is provided by Greenpeace's campaign against Nestlé's use of palm oil in the chocolate-candy bar Kit-Kat (Greenpeace International, 2010), an action which has notably increased public awareness of the detrimental effects of palm oil

usage in terms of rainforest destruction. This campaign has driven Nestlé to react officially by limiting its palm oil purchases to sustainably produced and ideally certified palm oil types and by participating in the “Roundtable on Sustainable Palm Oil” (Brabeck-Letmathe, 2010). Accordingly, NGOs act indirectly as stakeholders for sustainable sourcing through influencing corporate management, regulatory authorities, customers, suppliers, and competitors. We therefore outline the following final proposition regarding stakeholder influence and thus obtain the overall conceptual framework displayed in Figure 7:

*P<sub>8</sub>: NGOs only have a positive effect on the implementation of sustainable sourcing if they influence government authorities towards a sustainability-oriented regulation or corporate management, customers, suppliers, or competitors to adopt sustainability strategies.*

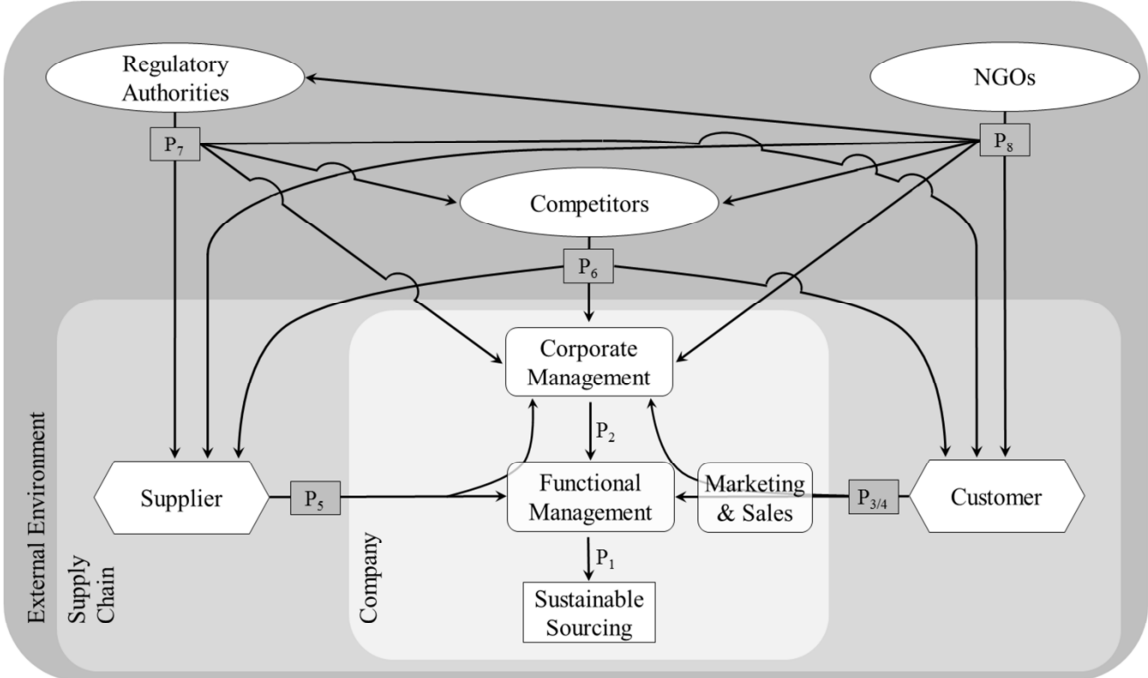


Figure 7: Conceptual Framework



### 3.6 Salient Stakeholders and Sustainable Sourcing in Practice

Having discussed the salience of select stakeholder groups for the implementation of sustainable sourcing, we will now analyse how those stakeholders' claims influence the development of company-specific sustainable sourcing profiles. The particular content of those claims reflects each stakeholder's individual (sustainability) agenda, and may, consequently, be geared towards select key aspects. Furthermore, the focus of some stakeholder groups may be very precise, stable, and predictable, while others may voice broader and more diffuse claims, which may additionally change more quickly over time.

#### *Supply chain-external stakeholders' influence on sustainable sourcing profiles*

A very pronounced claim is raised by regulatory authorities that set the general frame for each company's business activities via legal boundaries. Reflecting current socio-political topics, the scope and content of regulations have a changing focus over time and vary significantly among countries and regions. In Europe, for example, social legislation was initiated in the wake of industrialisation, as working conditions concerning working hours and safety issues were increasingly considered inhumane. Similarly, environmental legislation followed suit when society perceived ecological contamination to have exceeded a bearable extent, establishing environmental standards to safeguard rivers and forests from being irreversibly polluted by industrial waste and complete regions from being devastated by nuclear accidents, such as Chernobyl in 1986. Currently, regulatory authorities emphasise the economic sustainability of companies – especially banking institutes – as a result of the 2008/2009 financial and economic crisis and aim to exacerbate already existing (taxation) regulation towards ensuring long-term responsible behaviour and, thus, continuous existence of corporations.

On the corporate level, it can be presumed that individual sustainable sourcing profiles generally reflect the content of ongoing and expected regulatory endeavours, but primarily focus on the immediately relevant parts of sustainability-oriented regulation. Accordingly, banking institutes, for example, may in the near future emphasise their economic sustainability owing to the ongoing discussion on irresponsible short-term profit maximisation at the expense of long-term economic stability. In consequence, their sustainable sourcing profile might be adapted and move, for example, from a minimalist profile towards the economist type. In contrast, environmental regulation impacts mainly manufacturing companies, such as those in the chemical industry that have been particularly prone to environmental pollution. Finally, labour-intensive industries, such as the textile industry, might be primarily affected by social legislation and thus place special emphasis on social sustainability in sourcing. Con-

sequently, the sustainable sourcing profiles of chemical companies will most probably be inclined towards the environmentalist archetype, whereas social activist profiles will be typical for labour-intensive textile companies.

Similarly to the impact of different laws on the development of individual sustainable sourcing profiles, there are also differentiated claims of NGOs. They typically focus on the promotion of sustainability aspects immediately related to their mission, such as Attac's emphasis on economic conditions or Amnesty International's focus on social topics. Consequently, NGO claims are geared mainly towards companies struggling with the NGO's respective sustainability focus and aim at changing irresponsible business behaviour by increasing public awareness. Companies within the labour-intensive textile industry will thus most probably be the focus of socially oriented NGOs, whereas the chemical industry constitutes an obvious target for environmental concerns. Similarly, the banking sector will primarily face appeals from NGOs calling for increased economic sustainability and limits to negative impacts of free market.

In all cases, NGOs tend to focus on particularly prominent companies and neglect smaller ones promising less public attention and publicity. This selective approach is exemplified in Greenpeace attacking McDonald's for its support of destroying parts of the Amazon rain forest through soya farming. Although McDonald's sourcing volume amounted to only 0.003% of the corresponding soya sales (Goldberg and Yagan, 2007), Greenpeace stigmatised McDonald's publicly as "McAmazon" (Greenpeace International, 2006a, 2006b).

Following this example, it can thus be expected that sustainable sourcing profiles of (bigger) companies with higher public visibility will display a more pronounced emphasis on the particular sustainability dimension under NGO scrutiny than those of less well-known companies.

The claims voiced by competitors are less focused and will have a more diffuse impact on sustainable sourcing profiles. In practice, the competitors' ability to place claims effectively varies according to their respective competitiveness and the general market structure. Specifically, sustainability activities of competitors with high market power in oligopolies will influence the individual sustainable sourcing profile of the focal company far more than will sustainability initiatives of less influential competitors in situations of near-perfect competition.

Furthermore, the development of individual sustainable sourcing profiles also depends on the international allocation of competitors. If the majority of competing companies is located in the same economic region with given regulatory standards, only top sustainability companies will benefit from increasing industry standards on sustainability. These might enable corresponding competitors to accentuate their particular sustainability strength, and thus gain a certain competitive advantage over less sustainable companies. If the majority of competing companies is spread out globally, top sustainability experts have an even greater incentive to have high industry standards on sustainability established. Those can provide a notable competitive advantage, because prohibitively high legal sustainability requirements can effectively prevent competitors from emerging or developing countries with lower standards from entering highly developed markets.

Overall, the impact and focus of competitors' claims on sustainable sourcing profiles is less predictable than those of regulatory authorities and NGOs and depends upon the individual company's competitive environment.

#### *Supply chain-internal stakeholders' influence on sustainable sourcing profiles*

The claims voiced by suppliers and customers are even less predictable and stable, because they result directly from individual suppliers' and customers' public visibility, popularity, and corresponding strategies. While strategies especially may change in response to varying market and organisational characteristics, the relevance of their own public image and reputation might serve as a good indicator for which suppliers and customers might place sustainability requirements on a focal organisation.

Whereas the content of individual supplier or customer claims might represent any mix of social and environmental sustainability requirements (according to the respective strategies), it seems unlikely that the focal organisation would face expectations concerning economic sustainability. Although many suppliers and customers might hope for long-term business relationships with their respective customers and suppliers (i.e., the focal organisation in our framework), economic sustainability influences publicly perceived reputation far less than exceptional social or environmental practices do.

Depending upon the content of the claims of these stakeholder groups, individual sustainable sourcing profiles will thus reflect customers' and suppliers' strategies.

### *Company-internal stakeholders' influence on sustainable sourcing profiles*

The claims by the last stakeholder groups, namely corporate management as well as purchasing, marketing, and sales functions, are characterised by the highest degree of flexibility. Each of these stakeholders has the freedom to ponder the other stakeholders' claims and decide correspondingly which sustainability dimension(s) should be particularly emphasised in sourcing. In sum, the claims of those company-internal stakeholders reflect all other claims outlined above as well as personal, company-, and industry-specific context characteristics.

### *Industry context's influence on sustainable sourcing profiles*

When looking at company-specific sustainable sourcing profiles, the industry context provides the general business environment for all stakeholders discussed. The general importance of this context for corporate sustainability has, to some extent, already been discussed in academia (e.g., Aragón-Correa and Sharma, 2003; Henriques and Sadosky, 1999). With respect to sustainability in sourcing, the role of contingency factors has only been acknowledged implicitly. Reuter et al. (2010), for example, deliberately analysed sustainable sourcing practices in the chemical industry, because it is characterised by high stakeholder expectations on sustainability (which, according to the authors, are aspects grounded in the industry's history of environmental incidents, high profitability, and financial potency). Public indignation about Nike having relied upon child labour for the production of sports shoes provides an additional example of how industry specifics, such as a pronounced labour intensity, influence the implementation of sustainable sourcing practices in a particular industry (Carty, 2002; Levenson, 2008).

Regardless of the industry branch to be analysed, all companies of one particular industry usually face similar contextual circumstances; industry-specific regulation, pertinent NGO focus on select sustainability topics, and relevant competitors are as comparable as supply chain-specific suppliers and customers. Correspondingly, it is likely that different sustainable sourcing profiles correlate with particular industries. Owing to the particularities of their respective industry sectors and associated stakeholders' claims, companies from the chemical industry, for example, which strive for sustainability in sourcing will most probably be characterised by sustainable sourcing profiles of the environmentalist type, while corporations from the textile industry will tend to display social activist profiles.

### *Organisational context's influence on sustainable sourcing profiles*

Variations within those industry-specific sustainable sourcing profiles can be explained by organisational characteristics. While competing companies might rely upon similar input factors and processes to manufacture somewhat comparable products, there are still differences in terms of corporate characteristics, such as corporate size, image, history, capabilities, and business strategy.

The individual response to different stakeholder claims on the corporate level will depend upon corporate history, currently available capabilities, and strategic choices. On the one hand, bigger, more visible, or historically “pre-stressed” corporations might place a particularly strong emphasis on the individually relevant sustainability dimension, reaching a “best exemplar” status in this particularly dominant sustainability dimension. As a result, corresponding sustainable sourcing profiles would be specialised with a uni-dimensional sustainability emphasis. On the other hand, it is also possible that especially those organisations opt to differentiate themselves from established industry practice by deliberately choosing a generalist approach and balancing their sustainability efforts to emphasise a second sustainability dimension. This would then result in a two-dimensional emphasis as being represented, for example, by the social environmentalist.

In sum, the specific type of sustainable sourcing profile implemented in a corporation does not only depend upon the salience of surrounding stakeholders and the focus of their claims but also on pertinent industry- and company-specific characteristics. A corresponding development process is illustrated in Figure 8, which outlines the implementation of sustainable sourcing in a textile company according to the influencing factors discussed above. One very recent example for this is found in the sportswear industry, where Adidas has very recently announced to follow Nike's (NIKE Inc., 2011) and Puma's (PUMA AG, 2011) initiatives to exclude dangerous chemicals from its supply chain by 2020 (Adidas Group, 2011). This decision to extend the previous social activist sustainable sourcing profile towards environmental aspects is grounded in Greenpeace's “Detox campaign,” targeting the entire industry as an important originator of environmental pollution in China (Greenpeace International, 2011).

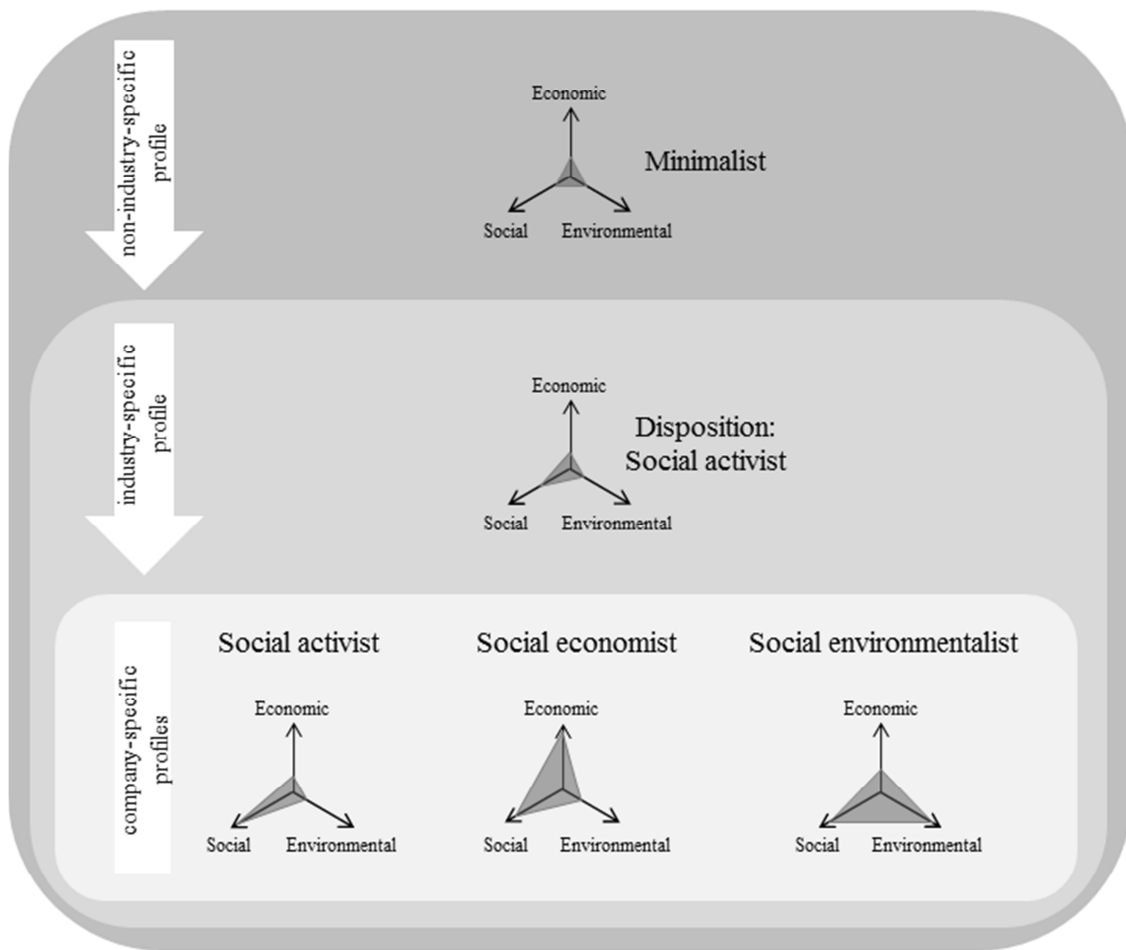


Figure 8: Development of a Company-Specific Sustainable Sourcing Profile in a Textile Company

### 3.7 Consequences of Implementing Sustainable Sourcing for the Purchasing Function

Although the advantages of sustainable sourcing have been highlighted repeatedly (e.g., Krause et al., 2009; Paulraj, 2011), its implementation in practice is often at low levels – if at all – with only few exceptions, such as Starbucks (Starbucks Coffee Company, 2008). This is somewhat surprising, given the widespread enthusiasm about corporate sustainability as well as the purchasing function’s importance in its implementation.

This gap between potential benefits and actual usage may be attributed to two factors: Firstly, some companies may simply not be aware that sustainable sourcing constitutes an integral part of corporate sustainability and, as such, requires a systematic implementation. Secondly, others may already have recognised the central role of sustainable sourcing for corporate sustainability, but lack the capabilities, instruments, or processes for its efficient introduction. Both scenarios point to purchasing lacking the necessary assertiveness or salience.

Taking into account the purchasing function's increasingly important strategic role and its growing recognition by corporate management (Kocabasoglu and Suresh, 2006; Paulraj et al., 2006), it can be assumed that purchasing itself does not make full use of its competencies and opportunities when implementing sustainable sourcing. This is potentially due to its traditionally strong focus on suppliers which is particularly insufficient when different stakeholders need to be considered explicitly. A purchasing function which has always focused only on suppliers is not likely to perceive other stakeholders' salience in the context of sustainability, because it lacks corresponding channels of communication to pick up on their existence and expectations. Consequently, such a supplier-focused purchasing function will not feel the need to deal with sustainability issues, let alone give them strategic priority. Even when a company is explicitly assigned to implement sustainability measures, such a purchasing function will not be able to do so effectively, because it will not fully account for all important stakeholders beyond suppliers. Being required to implement sustainable sourcing thus pushes a supplier-focused purchasing function to extend its perspective and increase its receptiveness towards additional salient stakeholders.

Such intensified stakeholder management also includes company-internal actors and, as such, the reconciliation and coordination with other departments and superordinate strategies. Given the rather recent development of purchasing to become a strategically important corporate function (Carr and Pearson, 2002) and its historical "isolation" within companies (Baier et al., 2008; Tassabehji and Moorhouse, 2008), a purchasing function facing the implementation of sustainable sourcing will also need to extend its activities within the company and, for this purpose, develop additional competences.

Consistent with calls for research on the relationship between sustainable sourcing and internal cooperation (e.g., Carter and Jennings, 2004), we expect further challenges to arise from the purchasing function's need to increase stakeholder sensitivity and to coordinate with other business functions due to and in the course of implementing sustainable sourcing. Following our propositions, these challenges are expected to result from intensified stakeholder management with those salient stakeholders directly influencing the purchasing function, i.e., suppliers, corporate management, and customers mediated through marketing and sales.

Managing the expectations of the first salient stakeholder group, the suppliers will not present a substantial challenge to purchasing, not only because the salience of suppliers is only high for suppliers with substantial power (see  $P_5$ ) but also more importantly because interacting with suppliers lies at the very heart of the competencies of purchasing. Therefore, suppliers' sustainability initiatives will most probably not require completely new processes,

activities, or competencies from the purchasing function, and thus do not result in a need to change substantially.

The situation is entirely different when sustainable sourcing is mainly driven by corporate management (see  $P_2$ ). A corporate business strategy that explicitly incorporates sustainability and, as such, requires the implementation of sustainable sourcing resembles other strategies in regard to one particular characteristic: strategy implementation mandates internal alignment, since the alignment of functional and corporate strategies is of vital importance for business success (González-Benito, 2007; Vickery et al., 1993). Implementing a corporate sustainability strategy, therefore, necessarily results in different departmental efforts, which need to be internally aligned.

In essence, the involved business functions face additional coordination and cooperation efforts to meet pre-defined corporate sustainability measures. Although this strategy implementation process is initiated on a corporate level (usually by a corresponding centralised strategy unit), the increased internal coordination is not limited to central departments, but includes neighbouring business functions that serve as internal customers or suppliers of the involved departments (Stanley and Wisner, 1998; Wisner and Stanley, 1999). Generally speaking, the more coordinated the corporate sustainability strategy is set up, the more departments will be involved and the greater the need for internal coordination and cooperation between the respective departments will be.

In the course of implementing sustainable sourcing driven by corporate management, the purchasing function will, thus, not only need to consider salient stakeholders' claims but also coordinate its efforts internally with other departments. We therefore propose the following:

*P<sub>9</sub>: The implementation of sustainable sourcing driven by corporate management requires, and consequently results in, an intensified cross-functional cooperation and internal alignment of the purchasing department with its respective internal customers and suppliers.*

When the implementation of sustainable sourcing is driven by customers (see  $P_4$ ), there is an explicit need “for purchasing managers to closely coordinate with marketing and distribution managers” (Carter and Jennings, 2004, p. 169), which undoubtedly represents an additional challenge of implementing sustainable sourcing. Explicit customer expectations are usually expressed via mandatory sourcing criteria that are first recognised and processed by sales or marketing as the boundary-spanning functions towards the customer. In order to fulfil these criteria, marketing and sales of the supplier organisation (the focal company in our



framework) need to internally communicate the specific customer requirements to other departments, such as purchasing which has to consider them while making sourcing decisions.

Also, in a setting in which companies proactively pursue sustainability, the implementation of sustainable sourcing has to be geared towards (potentially changing) customer requirements as not to jeopardise the company's overall competitiveness. To ensure this, purchasing needs to make sure that its sustainable sourcing criteria correspond to the potentially changing sustainability expectations of customers.

Both processes (reacting to as well as proactively anticipating customer requirements concerning sustainable sourcing) demand regular communication, active cooperation, and sound internal alignment between purchasing, sales, and marketing. We therefore propose the following:

*P<sub>10</sub>: The implementation of sustainable sourcing driven by customer requirements requires, and consequently results in, an intensified cross-functional cooperation and internal alignment of the purchasing department with sales and marketing departments.*

## **3.8 Conclusion**

### **3.8.1 Implications**

Based upon stakeholder theory, this research provides a threefold contribution to academia and practice. It outlines an operationalisation of sustainable sourcing, identifies stakeholders salient to the implementation of sustainable sourcing, and addresses whether purchasing has to change due to and in the course of implementing sustainable sourcing.

First, it has been indicated how sustainable sourcing can be operationalised and which success factors may influence its implementation. Via the sustainable sourcing profiles, purchasing can recognise its status quo compared to other profile types and can further determine future (development) goals for implementing sustainable sourcing in the mid- and long-term. This should be based upon the most salient stakeholders' expectations as well as the competences present in the corporation in general and the purchasing function in particular.

Second, the salient stakeholders that need to be considered when implementing sustainable sourcing have been identified. This extends previous research that called for intensified stakeholder management by a purchasing function aiming to implement sustainability but did not indicate the relevant stakeholders (Maignan and McAlister, 2003). The identification of

several direct and indirect salient stakeholders for the implementation of sustainable sourcing represents a first step in guiding future research in this area.

Third, this research shows that due to and in the course of implementing sustainable sourcing, purchasing has to cooperate more systematically and closely with other business functions, such as marketing and sales. Concerning the challenges purchasing has to meet when implementing sustainable sourcing, a twofold conclusion can be drawn.

Firstly, the traditionally supplier-focused purchasing function has to expand its sensitivity and perceptiveness of salient stakeholders' expectations on corporate sustainability. This constitutes the basis for understanding the multidimensional (stakeholder) complexity of effectively and efficiently implementing sustainable sourcing. Accordingly, purchasing functions just starting to implement sustainable sourcing should thus first increase awareness of additional stakeholders beyond suppliers. Purchasing functions already engaged in sustainable sourcing may assess whether their current implementation best reflects the needs of all salient stakeholders or whether certain relevant stakeholders have, so far, been neglected due to a lack of sensitivity for both their existence and their positions.

Secondly, this enhanced sensitivity to and interaction with salient stakeholders will require the purchasing function also to reconsider existing working relationships with other departments within the company. For successful implementation of sustainable sourcing, purchasing will have to communicate, interact, and cooperate systematically with internal suppliers and customers, such as the sales and marketing departments. A good company-internal network as well as established forms of cooperation with other business functions will help purchasing managers to further strengthen their strategic position within the company and to successfully implement sustainable sourcing. In this respect, the rather limited body of research on purchasing's internal cooperation and purchasing's relative isolation within the company during the past decades indicate that, also in this internal domain, the purchasing function of many companies may need to change.

In sum, sustainable sourcing should be of vital interest to most purchasing managers, not only due to the omnipresence of sustainability in today's business world and the importance of purchasing in facilitating corporate sustainability but also because sustainable sourcing provides the purchasing function with the opportunity to further enhance its strategic position.

Finally, the managerial implications also affect human resource managers responsible for the purchasing function. First, training programs may be utilised to systematically extend purchasing managers' stakeholder perception. Second, increased interaction of the purchasing function with other business departments could be facilitated by providing purchasing managers with the skills and the opportunities to communicate, network, and coordinate with managers from other business functions.

### 3.8.2 Limitations and Future Research

While the developed framework and research propositions contribute to theory building research in supply management, potentially leading to "a better balance between theory-building and theory-testing" (Meredith, 1993, p. 4), this research also presents some limitations and avenues for further research.

Like all primarily conceptually derived research findings, the archetypes of sustainable sourcing profiles and the research propositions would benefit from empirical validation. In the case of the sustainable sourcing profiles, large-scale survey research might offer interesting insights into the diffusion of the outlined archetypes according to company size, industry characteristics, and other contextual factors. In the case of the research propositions and the conceptual framework, multiple case studies based upon purposeful sampling could be used to test the model's applicability under different circumstances and in different industries (Yin, 2009). Furthermore, it may prove valuable to focus on select industries to contrast different degrees of maturity in sustainability. Such a focused setting will also facilitate testing the propositions via large-scale survey research analysing the salience of different stakeholders according to different company-specific contingencies.

This chapter's focus on stakeholder management has deliberately excluded other capabilities of the purchasing function that might be of value in the context of sustainability. Further research is thus encouraged to explore which capabilities are required beyond stakeholder management and internal cooperation to successfully implement sustainability.

Finally, it would be valuable to extend research regarding the internal cooperation of the purchasing function, because inter-functional cooperation represents a big challenge, has been identified as "the crux of supply chain management initiatives" (Fawcett and Magnan, 2002, p. 344), and is still poorly understood (Ellinger et al., 2006). Testing the propositions on purchasing's internal cooperation would add to the presently rather limited body of research and apply prior findings on internal cooperation between other business functions to the purchasing context and more specifically to the implementation of sustainable sourcing. Further in-

sight into the importance of cross-functional cooperation for implementing sustainable sourcing will provide managers with a growing awareness of the success factors to consider when implementing sustainable sourcing.

A first basis for such future research is provided by the sustainable sourcing archetypes and the conceptual framework proposed in this study, which has helped to demonstrate the different challenges and opportunities that a purchasing function implementing sustainable sourcing will face.

## **4 Facilitating the Implementation of Sustainable Sourcing: The Relevance of Internal Coordination**

## 4.1 Introduction

Corporate sustainability implies the simultaneous consideration of the economic, environmental, and social effects of business activities (Elkington, 1998; Góncz et al., 2007; Sikdar, 2003). Driven by different trends, such as increased stakeholder scrutiny on corporate responsibility (Carter and Easton, 2011; Waddock et al., 2002), sustainability has become an increasingly important issue in managing companies and their supply chains. The implementation of sustainability, however, is peppered with many managerial challenges (Waddock et al., 2002), such as the coordination of different efforts by the involved business functions.

In spite of countless publications on corporate sustainability (Bansal, 2005; Fabbe-Costes et al., 2011; Kleindorfer et al., 2005; Sharma and Henriques, 2005), surprisingly little research has dealt with how to actually implement sustainability in practice. While some drivers and barriers to implementing corporate sustainability have been identified (e.g., Góncz et al., 2007; Lieb and Lieb, 2010), the internal coordination of corporate and functional efforts has, so far, been neglected as a basis for successfully implementing sustainability.

In this respect, both supply chain management literature (e.g., Fawcett et al., 2006; Lambert et al., 2008; Pagell, 2004) and organisational theory (e.g., Lawrence and Lorsch, 1969; Tushman and Nadler, 1978; Van de Ven et al., 1976) have identified internal coordination as vitally important for implementing cross-functional initiatives by establishing a shared understanding of the strategy among all involved functions and, thus, facilitating a true “action in concert”. Yet, internal coordination is still poorly understood (Ellinger et al., 2006) and has been identified to be “the crux of supply chain management initiatives” (Fawcett and Magnan, 2002, p. 344). The lack of research on the role of internal coordination in the particular context of implementing corporate sustainability is especially intriguing in view of internal coordination having already been identified as one of sustainability’s challenges (Hallstedt et al., 2010; Pagell and Wu, 2009; Wolf, 2011). Correspondingly, this chapter follows an explorative approach to establish an understanding of the role of internal coordination for implementing corporate sustainability and of contingency factors influencing this role.

Besides analysing the relevance of internal coordination for corporate sustainability on a corporate level, we additionally investigate the coordination of the functional sustainability activities of the purchasing and the marketing functions. Purchasing, on the one hand, marks the interface between the upstream supply chain and internal value creation and is important in ensuring an organisation’s overall sustainability (Tate et al., 2010), since each organisation can only be as sustainable as its upstream supply chain (Handfield et al., 2005; Krause et al., 2009). Corresponding sustainable sourcing activities have to be internally coordinated with

the requirements of the other business functions. Marketing, on the other hand, represents the interface between internal value creation and the downstream supply chain. In its boundary-spanning function towards customer markets marketing plays a pivotal role in communicating corporate sustainability efforts towards internal and external stakeholders. This requires the internal coordination of marketing's activities with those of other departments (Ruekert and Walker, 1987).

As a means for internal coordination, previous research has identified a broad variety of coordination mechanisms ranging from rigid, bureaucratic control to rather loosely coordinated, communicative team approaches (e.g., Galbraith and Nathanson, 1978; Jarzabkowski and Balogun, 2009; Werr and Perner, 2007). These can be clustered into organic and mechanistic coordination mechanisms as two different, but complementary approaches for coordination (Burns and Stalker, 2001). This established classification allows for a differentiated analysis of how internal coordination can support the successful implementation of corporate and functional sustainability in different settings.

In analysing the effectiveness of organic and mechanistic coordination mechanisms, we apply a contingency approach for several reasons. On the one hand, context has been proven to influence the usage of coordination mechanisms (Tushman and Nadler, 1978; Victor, 1990) and to play an important role in the realm of both cross-functional coordination (Barki and Pinsonneault, 2005; Germain et al., 2008) and strategy formulation and implementation (Majumdar and Marcus, 2001; Paine and Anderson, 1977). On the other hand, the relevance of context has been highlighted for the implementation of corporate (Aragón-Correa and Sharma, 2003; Bansal and Roth, 2000) and functional sustainability (Paulraj, 2011; Reuter et al., 2010; Worthington et al., 2008).

Corresponding to calls for research on the importance of internal coordination for implementing corporate and functional sustainability (Carter, 2004; Carter and Carter, 1998; Carter and Jennings, 2004) and on the empirical examination of the influence of specific contingencies on the implementation of corporate sustainability (Aragón-Correa and Sharma, 2003), this chapter is devoted to addressing the following research questions.

1. *How relevant is internal coordination for the implementation of corporate sustainability?*
2. *Under which contingencies are organic and/or mechanistic coordination mechanisms more effective for facilitating internal coordination and thus, ultimately, fostering the implementation of corporate sustainability?*
3. *How relevant is internal coordination in general and how effective are organic and mechanistic coordination mechanisms in particular for functional sustainability efforts by the purchasing and marketing functions?*

The remainder of the chapter first provides a description of the conceptual background for this multiple cross-industry case study research. After detailing the methodology, the subsequent section presents the empirical results and the thereof derived research propositions. The chapter concludes with limitations and implications for future research and managerial practice.

## **4.2 Literature Review and Conceptual Background**

In order to analyse the context-specific effectiveness of organic and mechanistic coordination mechanisms for implementing corporate and functional sustainability, we draw upon previous research on coordination mechanisms and on the influence of contingencies on the implementation of sustainability.

### **4.2.1 Coordination Mechanisms**

Implementing a strategy relating to more than one business function requires, among others, the coordination of these specialised and often relatively autonomous functions (Astley and Zajac, 1991; Galbraith and Nathanson, 1978). To this purpose, companies can rely upon different coordination mechanisms (Olson et al., 1995) ranging from hierarchical directives to participative team approaches (Jarzabkowski and Balogun, 2009; Orton and Weick, 1990). In more general terms, these can be grouped along a continuum figuring organic coordination mechanisms on one side and mechanistic ones at the other end of the spectrum (Olson et al., 1995).

Organic coordination mechanisms are characterised by participative, organic, and loosely coupled structures with decentralised decision autonomy and increased organisational complexity, whereas mechanistic coordination mechanisms typically refer to relatively hierarchical, mechanistic, and tightly coupled structures with formalised and rather rigidly enforced



processes and centralised authority (Burns and Stalker, 2001; Olson et al., 1995). As elaborated in more detail in Table 1, organic structures facilitate cross-functional information sharing in a frequent and informal way, working on interdependent tasks in a concurrent rather than a sequential manner, and adopting a customer or project focus rather than persisting in a merely functional orientation (Olson et al., 1995).

	<b>Organic Coordination Mechanisms</b>	<b>Mechanistic Coordination Mechanisms</b>
<b>Organisational Structure</b>	<ul style="list-style-type: none"> <li>▪ Complex structure with decentralised authority</li> <li>▪ Low formalization, few rules and procedures</li> <li>▪ High unit autonomy</li> </ul>	<ul style="list-style-type: none"> <li>▪ Simple structure with centralised authority</li> <li>▪ High formalisation, many standard rules and procedures</li> <li>▪ Low unit autonomy</li> </ul>
<b>Processes</b>	<ul style="list-style-type: none"> <li>▪ Participative and democratic decision making</li> <li>▪ Participative and consensual conflict resolution</li> <li>▪ Horizontal, informal, and frequent flow of information</li> <li>▪ Concurrent and joint work on interdependent tasks</li> </ul>	<ul style="list-style-type: none"> <li>▪ Hierarchical decision making</li> <li>▪ Hierarchical conflict resolution</li> <li>▪ Vertical, formal, and infrequent flow of information</li> <li>▪ Sequential work on interdependent tasks</li> </ul>
<b>Strengths and Advantages</b>	<ul style="list-style-type: none"> <li>▪ Reduced barriers between individuals and functions enable open exchange of creative ideas and analytical perspectives <ul style="list-style-type: none"> <li>➢ Discussion-friendly atmosphere</li> <li>➢ Immediate and comprehensive problem solving</li> <li>➢ Horizontal and unfiltered flow of information</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Clear and non-redundant organisational set-up facilitates quick and aligned responses <ul style="list-style-type: none"> <li>➢ Time- and resource-efficient decision making</li> <li>➢ Effective and efficient conflict resolution</li> </ul> </li> </ul>

Table 1: Characteristics of Organic and Mechanistic Coordination Mechanisms

Mechanistic coordination offers advantages in terms of time and resource efficiency due to straightforward hierarchies, reporting and decision lines and allows for efficiently dealing with conflicts of interests (Victor, 1990). Overall, mechanistic coordination is conceptualized from a top-down vision of the firm, whereas organic coordination corresponds to a bottom-up vision of the firm (Cohendet et al., 2004).

Since each of the two types of coordination mechanisms offers distinct advantages, their usage needs to fit the specific context situation. While some situations call for organic coordination mechanisms, others require mechanistic approaches or even a mix of both, organic and mechanistic coordination mechanisms.

### 4.2.2 Contingency Approach

According to contingency theory, which forms the theoretical basis for this research, there is no one best way to manage an organisation (Drazin and Van de Ven, 1985); rather, organisational performance depends upon the fit (i.e., the proper alignment) of internal structure and strategy with external context variables (Lawrence and Lorsch, 1969). More specifically, different levels of uncertainty require different degrees of strategic formality (Jauch et al., 1980; Miller and Friesen, 1983) with particularly uncertain contexts calling for more differentiated structures and more sophisticated integration devices (Lawrence and Lorsch, 1969).

As outlined in the introduction, there is no research on how contingencies influence the need for internal coordination in implementing corporate sustainability. Therefore, to gain an understanding of potentially relevant context factors, we reviewed contingency-based research on the general understanding of corporate sustainability and on the motivation for its implementation (e.g., Bansal, 2005; Bansal and Roth, 2000; Jennings and Zandbergen, 1995).

In this realm, the very limited previous research has identified different types of context factors which influence the development of corporate (environmental) strategies (Fowler and Hope, 2007; Jauch et al., 1980; Zajac et al., 2000). A first group focuses on company-external contingency factors, such as external stakeholder pressures (Henriques and Sadorsky, 1999), obligations issued by regulatory authorities (Majumdar and Marcus, 2001; Sharma and Henriques, 2005), and the general economic and industry setting (Hofer, 1975; Miller and Friesen, 1983). A second group concentrating on company-internal contingency factors identifies internal stakeholders (Andersson and Bateman, 2000; Ramus and Steger, 2000; Sharma, 2000), structure of ownership (Jauch et al., 1980), production characteristics (Hofer, 1975), organisational culture (Drazin and Van de Ven, 1985), and top management involvement (Henriques and Sadorsky, 1999) as contingencies relevant to the development of sustainability strategies. This compilation provides a starting point for the identification of context factors relevant to the usage of coordination mechanisms for fostering the implementation of corporate sustainability.

In view of the numerous research possibilities characterising exploratory research settings like ours, we decided to limit our analysis to contingencies that are inherently and immanently connected to the implementation of corporate sustainability, such as the understanding and scope of the sustainability approach pursued as well as the need to fulfil specific stakeholder expectations on sustainability. Consequently, general, non-sustainability-specific context factors, such as the company's personnel policy and its sales and distribution strategy, are

deliberately excluded from the analysis. Further, we resolved to focus on corresponding company-internal contingencies, because this allowed for a clearly defined research design concentrated on internal aspects as explicated in the subsequent methodology sections.

## **4.3 Methodology**

### **4.3.1 Research Design**

For the purpose of clarifying the relevance of internal coordination for the implementation of sustainability on the corporate and on select functional levels, an inductive multiple case study approach offers several advantages. First, complex phenomena whose analysis requires an interaction of researcher and informant as well as multiple sources of information are best addressed by case study research (Gibbert et al., 2008; Yin, 2009). Second, our exploratory research questions explicitly consider the context and experiences of responsible managers (Benbasat et al., 1987; Eisenhardt, 1989). The context is further explicitly considered by using a contingency approach as theoretical lens, which ensures an excellent fit of the case study design and the theory elaborated on (Dubois and Araujo, 2007; Eisenhardt and Graebner, 2007). Third, the exploratory stage of the research is also mirrored by industry practice which, so far, lacks an established common understanding of corporate sustainability and internal coordination as one of the success factors of its implementation. In order to grasp current practices concerning the implementation of sustainability, qualitative research, thus, offers particularly promising insights (Eisenhardt, 1989). Fourth, the case study research design allows for effectively addressing the social desirability bias inherent in all sustainability research. Following established procedures, we remedy this bias by carefully framing the interview questions and relying upon data triangulation (Crane, 1999; Nederhof, 1985). An overview of the measures taken to address validity and reliability throughout the course of this research is provided in Table 2.

With the corporation as unit of analysis, data collection included the dedicated sustainability function – if existent –, the central strategy department as well as the purchasing and marketing/sales functions. This unit of analysis and the according multiple informant approach were chosen, first, in order to get distinct perceptions on how internal coordination is associated with implementing sustainability and, second, to analyse potential differences of effective coordination mechanisms for the implementation of sustainability on the corporate level as compared to its implementation in the purchasing and the marketing functions.

As indicated in previous research (Barratt et al., 2011; Leonard-Barton, 1990; Mintzberg, 1979), this clear focus helps to clarify the type of data to be collected as well as the types of organisations to be approached.

Validity & Reliability	General Definition	Measures Taken in This Research
<b>Construct Validity</b>	<ul style="list-style-type: none"> <li>▪ Refers to the quality of the conceptualisation and operationalisation of the relevant concept</li> <li>▪ Describes the extent to which a study investigates what it claims to investigate</li> <li>▪ Mainly salient during data collection</li> </ul>	<ul style="list-style-type: none"> <li>▪ Establishment of a clear chain of evidence from initial research questions to derived propositions and conclusion</li> <li>▪ Triangulation of data sources</li> <li>▪ Explanation of data collection circumstances and specific procedure</li> <li>▪ Explanation of data analysis procedure</li> </ul>
<b>Internal Validity</b>	<ul style="list-style-type: none"> <li>▪ Refers to the causal relationships between variables and results</li> <li>▪ Assesses whether there are plausible causal arguments and logical reasoning to defend research conclusions</li> <li>▪ Mainly salient during data analysis</li> </ul>	<ul style="list-style-type: none"> <li>▪ Specification of a clear research framework and centred on the relationship between the implementation of sustainability and internal coordination connected to previous research</li> <li>▪ Pattern matching of observed patterns with previously predicted (due to exploratory nature of the research, no pattern matching with previous research possible)</li> <li>▪ Triangulation of analysed data (interviews and archival data, particularly sustainability reporting) and discussion among researchers</li> </ul>
<b>External Validity</b>	<ul style="list-style-type: none"> <li>▪ Refers to the replication logic of multiple case studies</li> <li>▪ Establishes a basis for analytical generalisation (as opposed to statistical generalisation)</li> <li>▪ Salient during case selection and data analysis</li> </ul>	<ul style="list-style-type: none"> <li>▪ Cross-case analysis extending previously conducted within-case analysis</li> <li>▪ Explanation of rationale for the sampling and selection of case studies</li> <li>▪ Provision of details on case study context by meaningful tables and background information on the five cases</li> </ul>
<b>Reliability</b>	<ul style="list-style-type: none"> <li>▪ Refers to the absence of random error</li> <li>▪ Relies upon transparency of the research process to allow for replication of case study results</li> </ul>	<ul style="list-style-type: none"> <li>▪ Careful documentation of research procedures as suggested by case study protocols</li> <li>▪ Establishment of a case study database as the comprehensive and clearly structured collection of all relevant materials</li> <li>▪ Usage of comparable semi-structured interview guide for all interviews</li> </ul>

Table 2: Validity and Reliability in Our Case Study Research

### 4.3.2 Sampling

The case selection followed a multilevel process in order to yield a maximum richness of information from the cases permitting comprehensive and conclusive insights (Perry, 1998). Central to the sampling procedure was the concept of theoretical sampling, i.e. the selection of cases for theoretical reasons, such as revelation of an unusual phenomenon, elimination of rival explanations, and elaboration of the emergent theory (Denrell and Kovács, 2008; Eisenhardt and Graebner, 2007). Based upon an extensive literature review and preliminary expert interviews, our sampling frame took several different criteria into consideration.

Owing to limited previous research and this study's explorative nature, we deliberately relied upon a multi-industry approach to elaborate a sound first understanding of the relevance of internal coordination for the implementation of corporate sustainability in general. Maximum sector variability was deliberately sought to allow for observing a large number of contingencies impacting on the relationship between internal coordination and the implementation of sustainability.

The identification of suitable companies aimed at generating a limited "polar type" sample, in which (self-declared) sustainability expert companies were equally included as such organisations only starting to focus on sustainability. This type of sampling facilitates pattern recognition of central constructs, relationships, and logic of the focal phenomenon, and, thus, ultimately results in consistent theory building (Eisenhardt and Graebner, 2007).

Accordingly, companies were expected to show an explicit interest in and familiarity with (corporate) sustainability. Additional sampling criteria included differing organisational sizes (in terms of turnover and number of employees), structures of ownership, and corporate cultures and histories as well as the companies' agreement to have at least three business functions participate in the study, i.e. purchasing, (sustainability) strategy, and marketing/sales.

Given this intended spread among the individual cases, special emphasis was placed on guaranteeing one meaningful (control) dimension within the sample, namely a high degree of public awareness of corporate and brand image. This serves as an indicator that all companies have a strong motivation to take sustainability considerations and efforts seriously, because negative publicity would, due to high public awareness, immediately have a negative impact on business performance.

### 4.3.3 Data Collection

Corresponding to these sampling considerations, companies were approached with a short outline detailing the backgrounds of the research project and the requirements of participation, i.e. its implementation on the corporate and the functional level, and the need for the above specified business functions to participate in the study. For all five cases (in the following named Angus, Bryan, Chris, Dan, and Ewan), primary data were collected between September 2010 and April 2011. In each case, one primary responsible per organisation identified the most appropriate interview partners and facilitated the further data collection procedure. With each interview partner, there was at least one upfront phone call for clarification and preparation purposes. Based upon preliminary expert-interviews and the literature review, a semi-structured interview guide was developed, featuring guiding and probing questions according to established quality criteria (Eisenhardt, 1989; Perry, 1998). Whenever interesting new facets were identified, the interview guide was adjusted to ensure that these aspects were included in subsequent interviews.

In total, three to six interviews were conducted per company, which – apart from one telephone interview – all took place at the company sites (cf. Table 3). The 22 interviews were conducted and recorded by the same interviewer and lasted each between 1 and 2.5 hours. During the interviews, the interviewer could benefit from personal experience in the manufacturing industry, which facilitated the interviews and increased the perceived trustworthiness of the research project.

Notes of the answers and presented documents were taken during the interviews and immediately written up. All recorded interviews were transcribed meticulously, generating more than 700 pages of transcripts. As indicated in Table 1, a case study protocol was kept in order to account for reliability, detailing the proceedings of each interview and the collection of archival data. Furthermore, our case database contains individual notes, transcripts from the interviews, questionnaires, content from the companies' websites, sustainability and annual reports, and supplier guidelines as well as previously published papers and articles on the focal organisations and any other valuable information (Yin, 2009), resulting in more than 2.000 pages of information. Using such multiple data types and respondents as well as involving several researchers throughout the course of the study helps to mitigate social-desirability bias, single-informant bias and the bias of the individual researcher, such as a priori beliefs.

Case	Industry	Employees	Sales (Euro)	Structure of Ownership	Dedicated Sustainability Business Functions	Interview Partners
<b>Angus</b>	Specialty Materials	< 20.000	1-5 bn.	Foundation	<ul style="list-style-type: none"> <li>▪ Dedicated environmental strategy function</li> </ul>	<ol style="list-style-type: none"> <li>1. Marketing</li> <li>2. Product management</li> <li>3. Environment, health &amp; safety</li> <li>4. Purchasing</li> </ol>
<b>Bryan</b>	Furniture	> 50.000	20-50 bn.	Foundation	<ul style="list-style-type: none"> <li>▪ Dedicated sustainability function with strong focus on environmental sustainability</li> </ul>	<ol style="list-style-type: none"> <li>1. Environmental strategy</li> <li>2. Environmental strategy</li> <li>3. Purchasing SBU</li> <li>4. Purchasing indirect Materials</li> <li>5. Customer Service</li> </ol>
<b>Chris</b>	Vehicles	> 50.000	> 50 bn.	Shareholders	<ul style="list-style-type: none"> <li>▪ Dedicated sustainability function</li> <li>▪ Dedicated environmental strategy function</li> <li>▪ Function dedicated to social sustainability</li> </ul>	<ol style="list-style-type: none"> <li>1. Marketing</li> <li>2. Environment, strategy &amp; mobility</li> <li>3. Sales</li> <li>4. Work council</li> <li>5. Purchasing</li> <li>6. CSR &amp; sustainability (strategy)</li> </ol>
<b>Dan</b>	Fast Moving Consumer Goods	> 50.000	> 50 bn.	Shareholders	<ul style="list-style-type: none"> <li>▪ Dedicated sustainability function focusing almost exclusively on environmental sustainability</li> <li>▪ Decentralised responsibility for sustainability among business functions and employees</li> </ul>	<ol style="list-style-type: none"> <li>1. Marketing</li> <li>2. Purchasing</li> <li>3. R&amp;D Logistics/ Purchasing</li> </ol>
<b>Ewan</b>	Appliances	< 20.000	1-5 bn.	Families	<ul style="list-style-type: none"> <li>▪ Dedicated environmental strategy function covering all sustainability aspects</li> </ul>	<ol style="list-style-type: none"> <li>1. Central purchasing and distribution logistics</li> <li>2. Central purchasing</li> <li>3. Marketing</li> <li>4. Environmental strategy</li> </ol>

Table 3: Case Demographics and Interview Partners

#### 4.3.4 Coding and Case Analysis

Content analysis of all primary and secondary data was supported by the corresponding software MAXQDA and relied upon an open coding procedure to structure all available information. This included the subsequent identification of key categories, as well as their incremental further refinement and expansion (Weston et al., 2001). Overall, data analysis followed the established two phases of within-case analysis and cross-case analysis. The former is intended to develop individual case profiles in order to get acquainted with all aspects of each individual case, whereas the latter is aimed at detecting patterns in the data (Eisenhardt and Graebner, 2007; Yin, 2009). As part of the cross-case analysis we followed established quality criteria (Da Mota Pedrosa et al., 2012) and worked with tables and lists to compare the respective circumstances of the cases in terms of literal and theoretical replication as basis for sound theory building (Yin, 2009). A selection of these tables is provided by Tables 4 to 6,

which provide case-specific information on the understanding and implementation of corporate sustainability, sustainable sourcing, and sustainable marketing.

To elucidate the findings, the following sections will be structured by the research questions on the effectiveness of organic or mechanistic coordination mechanisms under different contingencies. Based upon the concept of fit inherent to the contingency approach (Drazin and Van de Ven, 1985), we subsequently argue that the best outcome in terms of enhanced internal coordination and, ultimately, successful implementation of corporate sustainability is achieved when the employed coordination mechanisms match the specific contingent setting. This is consistent with previous research which has, in other settings, underlined that those coordination mechanisms should be used which correspond to relevant context characteristics (e.g., Milne, 1970 for the distinction of mechanistic and organic organisations in developed and developing countries; Schiele, 2005 for purchasing's participation in the acquisition of different types of materials sourced; and Victor, 1990 for their usage according to the interdependence of organisational units and conflicts of interests).

#### **4.4 Data Analysis and Resulting Research Propositions**

According to our research questions, we first outline the relevance of internal coordination for the implementation of corporate sustainability in general. Then, we identify different contingency factors which influence the effectiveness of mechanistic and organic coordination mechanisms for the implementation of corporate sustainability, sustainable sourcing, and sustainable marketing. Finally, we compare the relevance of internal coordination for the implementation of corporate sustainability with that required for implementing sustainable sourcing and sustainable marketing. Additional case information to illustrate how we have reached the subsequently formulated propositions is provided in Tables 5 (corporate sustainability), 6 (sustainable sourcing), and 7 (sustainable marketing).

##### **4.4.1 Relevance of Internal Coordination for the Implementation of Corporate Sustainability**

In all five cases, internal coordination has been identified as an important requirement for the implementation of corporate sustainability. The majority of informants expressed the need to coordinate all business functions involved in the implementation of corporate sustainability following a twofold reasoning.



First, numerous informants across all cases explicated the necessity to involve various stakeholder groups in implementing corporate sustainability. The identification of salient stakeholders, however, differs among different business functions due to their functional specialisation and focus: Regulatory authorities, for example, are perceived as important by purchasers, who need to ensure respect for existing regulation in supplier management, and informants from environmental strategy functions. For the latter, taking influence on legislature in favour of their respective company and industry is among their prime responsibilities, as has been stated at Angus as well as Ewan:

*“We have intervened notably to ensure that REACh becomes a rather weak regulation. Before our intervention, things looked quite differently. It is truly a continuous struggle against those powerful European regulatory authorities.”*

*(Environmental Strategy, Angus)*

*“We are convinced that participating in standardisation and legislation processes is an absolute ‘must’ for our corporation. It certainly requires a lot of resources and expenses and is sometimes rather frustrating, but this is the only way to take influence in shaping future industry standards”*

*(Environmental Strategy, Ewan)*

Meanwhile, informants from sustainability strategy departments stress the need to address the concerns of shareholders, investors, and financial analysts assessing overall corporate (sustainability) performance, whereas marketing constantly interacts with the media, Non-Governmental Organisations (NGOs), and local communities. Balancing all these heterogeneous stakeholder concerns that are usually only perceived selectively by each business function and merging them into a coherent sustainability approach and implementation process requires a concise coordination of all involved business functions. Without such coordination, companies would risk that the implementation of sustainability in different business functions only considers the most salient stakeholders on the respective functional level, resulting in a cacophony of functional approaches not fitting to each other and, thus, not serving the cause of overall *corporate* sustainability.

A second reason for the relevance of internal coordination results from the information requirements of the heterogeneous group of stakeholders. They demand comprehensive, transparent, and concise insights on both the process of sustainability implementation and its results. As many interviewees pointed out, this multifaceted need for external communication requires the coordination of all involved business functions in order to balance respective stakeholder expectations. Besides fulfilling those stakeholders’ demands concerning up-to-date comprehensive information on corporate progress in sustainability (including future

goals), an increased level of transparency is also required by neutral institutions certifying corporate sustainability efforts, such as Global Compact or SA8000. As informants highlighted repeatedly, these institutions oblige certified companies to regularly publish reports on their sustainability implementation progress.

Several examples of the effects of this increased stakeholder scrutiny on corporate sustainability efforts have been documented previously, such as Nike resigning officially from using child labour (Carty, 2002; Levenson, 2008) or the Danish pharmaceuticals company Lundbeck restricting the distribution channels for its epilepsy drug Pentobarbital in order to prevent U.S. authorities from using it for lethal injections (Batty, 2011; Lundbeck A/S, 2011). Also NGO campaigns, such as Greenpeace attacking Nestlé for using palm oil in its chocolate bar “kitkat” (Greenpeace International, 2010), tell a convincing tale why companies need to assure a coherent and unambiguous picture of their sustainability efforts towards external stakeholders, such as the media, the general public, and NGOs.

Corresponding to these incidents, informants from all cases identify internal coordination of functional efforts as a double prerequisite for successfully implementing corporate sustainability: First, as a general precondition for the implementation of corporate sustainability throughout the entire organisation and, second, as a basis for communicating results and on-going processes concisely to external stakeholders.

*“A cross-functional approach is vital for the implementation of sustainability, since it doesn’t help to develop sustainability efforts in an ivory tower without ensuring that all concerned business functions are involved and participate actively.”*

*(Environmental Strategy, Chris)*

Therefore, in coherence with organisational theory, which highlights internal coordination as vital for the implementation of strategic initiatives (Lawrence and Lorsch, 1969; Tushman and Nadler, 1978; Van de Ven et al., 1976), we propose:

*P<sub>1</sub>: Internal coordination is an important facilitator for the implementation of corporate sustainability.*

#### 4.4.2 Effective Coordination Mechanisms for the Implementation of Corporate Sustainability

Subsequently, we identify contingencies that require different types of coordination mechanisms to foster the implementation of corporate sustainability, which are, at the same time, general enough to apply across contexts, yet specific enough to accurately reflect the reality of the context (Hambrick and Mason, 1984). Corresponding to the concept of fit, each contingency factor can require either (a) organic, or (b) mechanistic coordination mechanisms, or (c) a combination of both to facilitate internal coordination and ultimately foster the implementation of corporate or functional sustainability.

An overview of the subsequently identified contingencies and the corresponding propositions is provided by Table 4.

Sustainability Dimensions	Sustainability-Inherent contingencies	Corresponding Propositions	Effective Coordination Mechanism(s)
<b>Corporate Sustainability</b>	▪ Understanding and approach of sustainability	$P_2$	Organic
	▪ Business functions explicitly dedicated to sustainability	$P_3$	Mechanistic
	▪ Proactive sustainability strategy	$P_4$	Organic + Mechanistic
<b>Sustainable Sourcing</b>	▪ Understanding and scope of sustainable sourcing	$P_5$	Organic
	▪ Supply chain power of focal company	$P_6$	Mechanistic
	▪ External communication of sustainable sourcing	$P_7$	Organic + Mechanistic
<b>Sustainable Marketing</b>	▪ Internal resonance and interest in sustainability	$P_8$	Organic
	▪ Communication of sustainability efforts to external stakeholders	$P_9$	Mechanistic
	▪ Understanding and scope of sustainable sourcing	$P_{10}$	Organic + Mechanistic

Table 4: Contingency Factors and Corresponding Effective Coordination Mechanisms

The type of internal coordination required to foster the implementation of corporate sustainability depends strongly on the sustainability understanding and the implementation approach itself. Among our cases, we found differing conceptions of sustainability, which ranged from a very broad and far-reaching understanding encompassing comprehensive measures regarding all three sustainability dimensions (Bryan, Ewan) to individual informants even doubting the suitability concept as a whole for their particular business model (Angus):

*“We consider sustainability to imply that our actions and activities should have a positive impact on human beings and the environment. This positive impact can be ensured by guaranteeing replenishment of renewable resources, avoiding unnecessary (waste) emissions and preventing any harm to the environment and human beings, particularly our employees and customers.”*

*(Environmental Strategy, Bryan)*

*“I consider the topic of sustainability to be a temporary fashion. Going by the true meaning of the concept, we can never be sustainable, since our production requires a lot of energy and it is highly unsustainable to recycle our products.”*

*(Environmental Strategy, Angus)*

In between those extremes, Chris and Dan represent companies well-aware of and attending to all sustainability dimensions to a certain degree, but focusing mainly on the duo of environmental and economic sustainability to ensure resource efficiency in terms of production and product usage.

Corresponding to these varying understandings of what sustainability means in everyday business activities and how it can be implemented operatively and strategically, there are different implementation approaches, e.g., in terms of comprehensiveness and proactivity (e.g., Fowler and Hope, 2007).

Our cases vary regarding their comprehensiveness of considering all sustainability dimensions and regarding the formality and the obligingness with which sustainability is discussed as a promising opportunity or rather another duty to be fulfilled on top. Despite differing content comprehensiveness, Bryan and Chris both rely upon a deliberately “light and playful approach” to explain the virtues of sustainability to their different internal and external stakeholder groups. Contrasting Dan’s rather patronizing approach to “educate” employees and customers in terms of sustainability, Bryan and Chris emphasise sustainability’s benefits and how easily it can be integrated into everyone’s everyday life with only slight constraints – if any at all. Both companies are convinced that implementing sustainability in a comprehensive manner is far easier by encouraging commitment and enthusiasm than by formulating top-down oriented directives typical to the implementation of other strategic initiatives.

*“It is important to keep a deliberately light and playful tonality in presenting and promoting sustainability, because this allows for creating true esprit, enthusiasm and new ideas. All of this is of vital importance for a sustainability culture.”*

*(Marketing, Chris)*

In order to foster such a playful sustainability approach, organic coordination mechanisms are, on the basis of their characteristics explicated in Section 2.2, best suited to convince stakeholders of sustainability's strengths and advantages. Engaging involved business functions and external stakeholders in a participative way leaves room for individual interpretations on how to employ different sustainability suggestions to their best and for the development of creative ideas how to further extend these starting points to additional applications. Furthermore, building true and long-lasting stakeholder commitment and motivation is difficult by force of order and far easier by convincing them of the necessity for and usefulness of sustainability. This is usually achieved by enhancing a participative process of discussion that is characteristic to organic coordination mechanisms rather than by issuing orders in a top-down manner. Based on the concept of fit, we therefore propose:

*P<sub>2</sub>: Given a deliberately „light and playful“ sustainability approach following a broad understanding of sustainability, organic coordination mechanisms are more effective for internal coordination and ultimately foster the implementation of corporate sustainability.*

A second contingency factor inherently connected to the implementation of corporate sustainability lies in the corresponding organisational structure and allocation of responsibility for this process and its results. In all cases, the implementation of sustainability is supported by distinct organisational structures which are usually responsible for ensuring the implementation of the environmental and/ or social sustainability dimensions. Surprisingly, we found that the organisational structures chosen by our case companies do not reflect their current sustainability understanding, but are rather the results of the historic development path.

In spite of their differing understandings of sustainability, both Angus and Ewan ensure the implementation of corporate sustainability by relying on a business function dedicated to *environmental strategy* only. Going one step further, Bryan and Dan have both created a dedicated *sustainability strategy* function, but this label does not automatically imply the consideration of social and environmental sustainability to equal parts. Factually, those *sustainability strategy* functions focus mainly (Bryan) or almost exclusively (Dan) on environmental aspects of sustainability, independent from the general understanding of sustainability. Chris even has a business function dedicated only and explicitly to overall sustainability and two additional business functions dedicated to environmental and social sustainability aspects respectively.

Although the respective scope of responsibility of each of these dedicated business functions varies notably among the companies, there was evidence in all cases that the mere existence of these dedicated sustainability functions, which already constitutes an element of mechanistic coordination, induces a need for further mechanistic coordination mechanisms. As a prerequisite to fulfilling their respective objective, dedicated business functions need a clearly marked scope of authority, set responsibilities as well as defined internal customers and suppliers. In order to coordinate their activity with those of neighbouring business functions and to enforce their respective interests and missions in the rest of the company, mechanistic coordination offers several advantages. On the one hand, mechanistic coordination mechanisms correspond directly to the idea of centralising responsibility for sustainability by creating those dedicated business functions. On the other hand, mechanistic coordination allows for planned, formalised and efficient interactions with other departments.

While this need for mechanistic coordination results directly from the establishment of any dedicated sustainability business function, it is even more virulent if such a dedicated sustainability function does not encompass all sustainability dimensions incorporated in the respective company's understanding of sustainability. Bryan's broad understanding of sustainability and the factual focus of its dedicated sustainability function on environmental aspects only illustrates the need to mechanistically coordinate efforts with all those neighbouring business functions, which hold a partial or decentralised responsibility for social sustainability aspects. In the case of Chris, this need for internal coordination is particularly high due to the organisational distribution of responsibility for sustainability among three distinct departments. This requires constant coordination among those functions and beyond this "sustainability responsibility centre" to ensure that corporate sustainability guidelines and requirements are aligned, coordinated and clear to all involved departments. Still, the need for internal coordination can even increase further if content and decision authority is not clearly distributed among the dedicated sustainability functions. Without such mechanistic coordination, the implementation of sustainability can be hindered by a situation of uncertainty and internal competition. Based on contingency theory's concept of fit, we therefore propose:

*P<sub>3</sub>: Given business functions explicitly dedicated to addressing sustainability, mechanistic coordination mechanisms are more effective for internal coordination and ultimately foster the implementation of corporate sustainability.*

A third contingency factor influencing the implementation of sustainability at the corporate level is the degree of proactivity or reactivity of the pursued strategy. According to previous research, reactive sustainability strategies rely upon defensive lobbying and investments

in “end-of-pipe pollution control” (Aragón-Correa and Sharma, 2003, p. 73) to respond to stakeholder pressure, whereas proactive sustainability strategies anticipate changing stakeholder pressures and foresee investments in preventing negative environmental impacts (Aragón-Correa, 1998; Hart and Ahuja, 1996; Hunt and Auster, 1990).

The continuum between proactive and reactive approaches is also apparent in our case material. Angus and Dan represent the reactive end of the spectrum, recognizing sustainability as an increasingly dominant market trend and reacting either to explicit customer demands (Angus) or to market standards emerging due to competitors’ behaviours (Dan). The opposite strategy is pursued by Bryan and Ewan, which both proactively approach sustainability issues, for example by anticipating future material regulations with corresponding rigorous internal specifications (Ewan) or by continuously enlarging the scope of their sustainability activities forestalling future additional stakeholder requirements (Bryan). Chris takes an intermediary position, having learned from historical “misbehaviours” and resolved to take a somewhat proactive approach, albeit at a minimalistic level. Taking into account the positive performance impact of proactive sustainability strategies (Judge and Douglas, 1998; Klassen and Whybark, 1999; Russo and Fouts, 1997) and previous research on the limited appropriateness of “ad hoc or fire-fighting approaches” (Waddock et al., 2002, p. 143) to sustainability, proactive sustainability approaches seem particularly promising.

As prerequisites of being able to implement a proactive sustainability strategy, companies need to take care of two aspects: on the one hand, proactivity requires meticulous monitoring of present and future stakeholder expectations as well as careful planning of proactive measures to be taken and communicated externally. On the other hand, being able to stay proactive in sustainability in the longer term relies upon creative ideas and thoughtful concepts, both of which can only flourish in an encouraging atmosphere providing room for such proactive efforts and among employees that are committed to and convinced of sustainability. While the process of monitoring and planning is best supported by mechanistic coordination establishing central authorities, well-defined responsibilities, and reporting lines, both creativity and commitment are undoubtedly best enhanced by organic coordination mechanisms allowing for participative discussions and democratic processes. Based on contingency theory’s concept of fit, we therefore propose:

*P<sub>4</sub>: Given an increasingly proactive sustainability strategy, both organic and mechanistic coordination mechanisms are needed for internal coordination and effective in ultimately fostering the implementation of corporate sustainability.*

## Corporate Sustainability: Understanding and Implementation

<b>Angus</b>	<ul style="list-style-type: none"> <li>▪ Historically, consideration of both social and environmental aspects due to presence of founders' families; however, only recently explicit focus on sustainability <ul style="list-style-type: none"> <li>➢ Concept and focus still evolving</li> </ul> </li> <li>▪ Sustainability approach market-oriented and -driven: individual business units have started reacting to market demand (partially in coordination with others), but so far no strategic approach on the corporate level <ul style="list-style-type: none"> <li>➢ Reactive, observant and somewhat „inertial“</li> </ul> </li> <li>▪ Top-down sustainability approach including select „bottom-up cells“ of initial sustainability projects which correspond to explicit market requirements</li> <li>▪ So far, limited implementation of corporate sustainability on a truly corporate level</li> </ul>
<b>Bryan</b>	<ul style="list-style-type: none"> <li>▪ Broad and very balanced understanding of sustainability with initiatives on both social and environmental sustainability</li> <li>▪ Consideration of sustainability as a market requirement and no source of competitive advantage</li> <li>▪ Light, informative, and explanatory approach to implementing sustainability covering all three dimensions comprehensively</li> <li>▪ Bottom-up sustainability approach based on local/regional market requirements</li> <li>▪ Due to high exposure to stakeholder scrutiny rather proactive sustainability strategy aimed at fulfilling several stakeholders expectations</li> <li>▪ Initial approach to content external stakeholders extended towards internal stakeholders to increase internal understanding of and commitment to sustainability <ul style="list-style-type: none"> <li>➢ Far-reaching approach including internal trainings, internal and external communication and dedicated business functions</li> </ul> </li> <li>▪ Compliance with most of the requirements defined by ISO26000</li> </ul>
<b>Chris</b>	<ul style="list-style-type: none"> <li>▪ Generally broad understanding of sustainability with dedicated departments to all dimensions, but, in practice, focus on environmental sustainability</li> <li>▪ Top-down approach to sustainability historically initiated in separate socially and environmentally focused „cells“ forming the basis for subsequently emerging dedicated business functions</li> <li>▪ Sustainability as a „must“ to maintain competitiveness, pursuing a dominant focus on economic sustainability</li> <li>▪ Dedicated sustainability communication initially externally focused to provide sustainability information in a deliberately light and non-patronising way; this is now received also internally with enthusiasm <ul style="list-style-type: none"> <li>➢ Internal communication campaign due to successful external campaign</li> </ul> </li> <li>▪ Proactive sustainability approach, including somewhat comprehensive measures; overall, rather cautions minimalistic strategy without „great visions“</li> <li>▪ Light and playful implementation approach to enhance individual enthusiasm on sustainability with an explicit focus on environmental and economic sustainability on all hierarchy levels</li> </ul>
<b>Dan</b>	<ul style="list-style-type: none"> <li>▪ Sustainability approach clearly and explicitly focused on economic and environmental sustainability; The social dimension is deliberately excluded from Dan's sustainability understanding and covered by Corporate Social Responsibility and anti-corruption efforts, guaranteeing compliance with expectations and obligations on social aspects</li> <li>▪ General understanding that sustainability should lead to (economic) efficiency and needs to be applied to the entire product portfolio instead of offering a selection of sustainable products</li> <li>▪ Having assessed market standards on sustainability, rather reactive sustainability approach focused on economic and environmental considerations</li> <li>▪ Top-down oriented approach initiated in select pilot regions spread within the organisation due to good market resonance</li> <li>▪ Implementation approach follows slightly patronizing conviction that both employees and customers need to be educated and centrally elucidated on the virtues of environmental and economic sustainability</li> </ul>
<b>Ewan</b>	<ul style="list-style-type: none"> <li>▪ Broad understanding of sustainability fostered by corporate culture and history of this family-owned company</li> <li>▪ Historically, strong focus on both social and environmental sustainability aspects: social concerns focused on employees and business partners alike, environmental concerns focused on a resource-efficient production and product offerings centred on optimised resources consumption</li> <li>▪ Pioneer in sustainability certification which is considered as a means to ensure and demonstrate sustainability efforts transparently and to focus efforts and resources on objectively relevant sustainability aspects</li> <li>▪ Bottom-up approach complemented by far-reaching top management involvement in sustainability</li> <li>▪ Broad understanding of sustainability reflected in comprehensive implementation covering all sustainability dimensions</li> <li>▪ Sustainability so inherently embedded in core corporate values (for decades) that its implementation requires virtually no additional strategic effort in terms of convincing internal and external stakeholders of its advantages and Ewan's earnestness in the matter</li> </ul>

Table 5: Case Descriptions on Understanding and Implementation of Corporate Sustainability



#### 4.4.3 Effective Coordination Mechanisms for the Implementation of Sustainable Sourcing

The following propositions deal with the implementation of sustainable sourcing, which can be considered as “managing all aspects of the upstream component of the supply chain to maximise triple bottom line performance,” (Pagell et al., 2010, p. 58). This tripartite approach referring to business’ impacts on people, profits, and the environment (Kleindorfer et al., 2005) is commonly accepted in previous research (Reuter et al., 2010; Tate et al., 2010) and, thus, forms the basis for our research.

The need for internal coordination to foster the implementation of sustainable sourcing depends upon the understanding and scope of sustainable sourcing – similar to the implementation of corporate sustainability as described in Proposition 2. Furthermore, this previously discussed understanding of corporate sustainability obviously influences the case companies’ respective understanding of sustainable sourcing.

Bryan and Ewan are both characterised by a very comprehensive understanding and scope of sustainable sourcing, rely upon different certifications to ensure coverage of all three sustainability dimensions, and even accept slight cost increases in favour of sustainability. In contrast, Chris and Dan focus mainly on environmental and economic sustainability, convinced that truly sustainable suppliers and materials should also be less expensive, since resource efficiency directly results in cost reductions. Angus still being at the beginning of implementing sustainable sourcing has, so far, not had to weigh compliance with sustainability standards against potential cost increases, but does explicitly consider all sustainability dimensions in sourcing. In all cases, the purchasing function is in exchange with the respective dedicated sustainability function(s), but is still individually responsible for implementing general corporate sustainability guidelines in the particular area of sourcing.

Horizontal coordination with other business functions constitutes the basis for being able to derive sustainable sourcing measures, as it allows purchasing to understand which sustainability requirements are most essential to subsequent value creation processes and relevant market standards. Furthermore, an enhanced understanding of how and in which way sustainable sourcing is relevant to other functions, is necessary for being able to assess internal consequences of suppliers not complying with sustainability standards. The need for this internal coordination rises further with an increasingly broad understanding and scope of sustainable sourcing underlying all specific efforts: Taking into account many different sustainability aspects in the procurement of numerous materials requires purchasing to intensify its

coordination efforts notably compared to the coordination necessary to implement select sustainability criteria in select supplier groups.

Ensuring this type of coordination in view of a broad understanding and scope of sustainable sourcing is best achieved by organic coordination mechanisms. They correspond to purchasing's relative autonomy in implementing sustainable sourcing as well as the horizontal nature of the exchange described above. As purchasing depends upon the input of neighbouring business functions which, themselves, rely upon sustainable sourcing as a basis for being able to fulfil their respective sustainability requirements, organic coordination mechanisms are suited best to reduce functional barriers and support an open exchange. Based on contingency theory's concept of fit, we therefore propose:

*P<sub>5</sub>: Given a broad understanding and scope of sustainable sourcing, organic coordination mechanisms are more effective for internal coordination and ultimately foster the implementation of sustainable sourcing.*

The power of the focal company over its supply chain constitutes another context factor that influences the implementation of sustainable sourcing and the resulting need for internal coordination. Without a certain degree of power over their suppliers, companies face serious difficulties in implementing sustainability in their supplier management. Particularly when they do not hold any power over their supply markets, for example due to oligopolistic market structures, the implementation of sustainable sourcing may even be rendered impossible.

Among our cases, Angus is closest to this lock-in situation with limited power over its oligopolistic supply markets, whereas Chris and Dan dispose of strong supply chain power that is also commonly utilised to their benefit. Taking an intermediary position, Bryan and Ewan both hold a relatively strong power over most of their suppliers, but exert it rather seldom. Independent from their respective supply chain power, all informants highlight that disposing of a certain degree of power over suppliers is a necessary prerequisite for being able to effectively implement sustainable sourcing.

*“The more powerful we are as a customer towards the individual supplier, the more realistic it is to establish sustainability criteria in sourcing and control their observance in practice.”*

*(Purchasing, Bryan)*

In order to make good use of supply chain power in terms of implementing sustainable sourcing, companies need to ensure a coherent and concise handling of suppliers. In view of the official and representative nature of such sustainability requirements, mechanistic coordination mechanisms prove particularly effective for ensuring the necessary degree of internal

coordination. Asserting an unambiguous definition of sustainability and providing specific expectations exemplified by corresponding sustainable sourcing criteria requires purchasing to carefully plan and coordinate all activities and measures within and beyond the purchasing function. On the one hand, mechanistic coordination ensures that comparable sustainable sourcing criteria are established without any exceptions across all relevant material categories and supplier groups. On the other hand, specific competencies of other business functions, such as legal advice on corresponding supplier contracts, need to be considered in a systematic and properly planned manner. Based on contingency theory's concept of fit, we therefore propose:

*P<sub>6</sub>: Given a certain power of the focal company over its suppliers, mechanistic coordination mechanisms are more effective for internal coordination and ultimately foster the implementation of sustainable sourcing.*

Finally, the implementation of sustainable sourcing and the resulting need for internal coordination are influenced by the visibility of sustainable sourcing efforts to external stakeholders. While a certain degree of transparency is enforced through reporting obligations of external certification institutions, such as Global Compact or SA8000, companies can choose to communicate additional information about their sustainable sourcing activities beyond those standardised requirements.

The decision to willingly increase external visibility of sustainable sourcing practices has been taken in different ways by our case companies. While Angus does not include information on sustainable sourcing activities in its official external sustainability communication, Dan and Ewan provide meaningful insights on sustainable sourcing practices to interested and demanding stakeholders. They do not place a particular emphasis on highlighting sustainable sourcing practices as an important part of their overall sustainability efforts, but the information provided is comprehensive and concise. However, Ewan considers this mainly as fulfilling certain obligations and actively directs stakeholders interested in sustainability aspects to other topics than sustainable sourcing.

*"I didn't know that we hold this sustainable sourcing certificate and I couldn't care less! Our customers rightly expect excellent product quality and this implies that my colleagues from purchasing have to take care of things like this. However, we prefer to communicate product and company attributes rather than such a supply certificate!"*

*(Marketing, Ewan)*

Bryan and Chris pursue a different strategy by communicating sustainable sourcing practices in a rather proactive, externally very visible and exposed manner. Bryan does so by providing in-depth information about specific examples in a very illustrative and comprehensible way, which gives stakeholders a very detailed insight into what is happening in daily business. Chris chooses to publish more generic information about background and goals of sustainable sourcing practices without going into details on the factual day-to-day doing, yet clearly emphasising the (strategic) relevance of sustainable sourcing as a prerequisite for ensuring sustainability within and beyond the corporate boundaries.

*“We do communicate prizes we are awarded by external stakeholders for taking into account specific supply conditions in clearly defined material groups. We do so when we expect our customers to either know the prize in advance or to appreciate it thanks to our corresponding communication efforts.”*

*(Purchasing, Bryan)*

The more prominent sustainable sourcing practices are communicated externally, the more important is effective internal coordination to specify content and scope of this sustainable sourcing communication. As in the case of strong supply chain power, the intensified visibility induced by proactive communication of sustainable sourcing practices requires careful planning of timelines, terminology, and contents to be shared, clear responsibilities to be established, and corresponding reliable decisions from higher management levels. Complementing these mechanistic coordination mechanisms, there is also a need for organic coordination in order to get all involved business functions to act in concert and pull together. Without organic coordination convincing all involved managers from purchasing, marketing, and central sustainability functions of the usefulness to communicate this information, it will be difficult to jointly define the most meaningful insights to be shared as well as the outlet and manner most appropriate to do so both effectively and efficiently. Based on the concept of fit, we therefore propose:

*P<sub>7</sub>: Given the intention of companies to externally communicate sustainable sourcing practices, both organic and mechanistic coordination mechanisms are needed for internal coordination and effective in ultimately fostering the implementation of sustainable sourcing.*

## Sustainable Sourcing: Understanding and Implementation

<b>Angus</b>	<ul style="list-style-type: none"> <li>▪ Broad awareness of potential measures to ensure sustainability in sourcing, but so far no escalation process in case of non-compliance (also due to lacking corresponding cases)</li> <li>▪ Significance of sustainability, particularly in danger of inducing rising supply costs, remains yet to be clarified</li> <li>▪ Focus of sustainable sourcing on main (A-)suppliers</li> <li>▪ Relatively weak power over upstream supply chain due to oligopolistic nature of main supply markets</li> <li>▪ No communication of sustainable sourcing practices</li> </ul>
<b>Bryan</b>	<ul style="list-style-type: none"> <li>▪ Very comprehensive understanding and implementation of sustainable sourcing based on generally established norms and specifications, complemented by specific requirements defined for distinct product and material groups</li> <li>▪ Despite usually long-lasting supplier relationships, no compromises in favour of lower prices and very strict consequences in case of non-compliance with sustainability requirements</li> <li>▪ Sustainable sourcing requirements valid for all suppliers, but proactive measures, such as audits and methodical on-site visits, to ensure a sustainability compliance in advance are focused on main (A-)suppliers</li> <li>▪ Rather strong power over upstream supply chain – at least concerning most important materials –only used to limited extent</li> <li>▪ Explicit detailed and tailor-made communication of sustainable sourcing practices to different stakeholders objectively reflects current sourcing practice quite well</li> </ul>
<b>Chris</b>	<ul style="list-style-type: none"> <li>▪ Sustainable sourcing efforts mainly focused on environmental aspects of sustainability</li> <li>▪ Sustainable sourcing as a risk management instrument, particularly in terms of reputation management</li> <li>▪ No proactive audits or unexpected on-site visits, rather reactive concept focusing mainly on the existence of an „emergency team“ to deal with (suspected) supplier non-compliance</li> <li>▪ Factual termination of supply contracts is seldom, most cases are resolved jointly</li> <li>▪ Focus on tier-1 suppliers of main materials</li> <li>▪ Strong power over virtually entire upstream supply chain for all materials sourced, which is frequently exerted</li> <li>▪ Rather extensive communication of sustainability sourcing strategy and background, less insight on factual doing</li> </ul>
<b>Dan</b>	<ul style="list-style-type: none"> <li>▪ Comprehensive set of requirements on environmental and economic sustainability, expecting sustainable suppliers and materials to be less expensive due to direct link of resource efficiency and cost reductions</li> <li>▪ Strong power over the vast majority of the upstream supply chain concerning almost all materials, which is exerted rather frequently</li> <li>▪ Provision of some information on sustainable sourcing as part of general sustainability communication, but no explicit focus on accurately portraying sustainability practice in detail</li> </ul>
<b>Ewan</b>	<ul style="list-style-type: none"> <li>▪ Comprehensive approach requiring all suppliers to comply with obligations resulting from certification, no distinction between A/B/C-suppliers (apart from auditing processes focusing primarily on A-suppliers)</li> <li>▪ Comprehensive approach covering all sustainability dimensions to a very large extent, with the historical focus on social sustainability in sourcing having evolved to also consider environmental aspects extensively</li> <li>▪ Certain extent of power over upstream supply chain factually used to a limited extent due to cooperative approach to supplier management</li> <li>▪ Provision of meaningful information on sustainable sourcing to explicitly interested stakeholders, but no particular focus on communicating sustainable sourcing as a prominent part of overall sustainability efforts</li> </ul>

Table 6: Case Descriptions on Understanding and Implementation of Sustainable Sourcing

#### 4.4.4 Effective Coordination Mechanisms for the Implementation of Sustainable Marketing

In this part of our research, we focus on the communication of sustainability-centred content when referring to sustainable marketing. While sustainable marketing in general also covers activities, such as the development of sustainable products or decentralised distribution facilities (Gordon et al., 2011; Kotler, 2011), our study identified communication as an important activity to the marketing function which relies notably on internal coordination (Kotler, 2011). Thus, it serves well to illustrate and elucidate the relationships found.

Sustainability communication can address both internal and external target-groups, resulting in differing communication objectives and contents as well as internal guidelines that need to be followed during the process. Concerning external communication, case material indicates that the design of internal sustainability communication is influenced notably by the resonance and interest the concept of sustainability evokes within the company.

Among our cases, internal resonance and interest in sustainability differ notably. At Angus and Dan, interest in sustainability is mainly driven by market-orientation and the idea of sustainability enhancing the company's (future) competitiveness. While Angus' employees mostly consider sustainability as a temporary fashion, whose salience will rather decrease in the long term, Dan's employees are increasingly convinced that sustainability can provide their company with an additional competitive edge. Contrasting this very results-oriented sustainability interest, most employees of Bryan and Chris are rather enthusiastic about the benefits of implementing sustainability in practice as well as its participative virtues allowing almost all interested parties to "do something good", not only in their professional but also in their private lives. Since Ewan's organisational culture incorporates sustainability's central norms and values, its employees have worked by sustainability values for decades without ever having heard of sustainability as such. In consequence, Ewan's employees are used to the core concept of sustainability and, apart from select dedicated business functions, do not perceive this topic as particularly new or salient.

The internal sustainability interest and resonance created at Bryan and Chris result from constantly emphasising sustainability's advantages and the easiness of its implementation in a rather informal way. At Bryan, the dedicated sustainability function worked hard to gain trust and respect of neighbouring business functions by offering personal and unbureaucratic support, highlighting the value of sustainability in a rather "incidental way", avoiding any "know-it-all"-attitude. At Chris, internal sustainability interest was sparked "by accident" as an unex-

pected by-product to external sustainability communication. In the aftermath of this campaign, employees identified sustainability as a powerful concept offering also some “low-hanging fruit,” which are fun and rather simple to harvest. Ever since, a momentum has emerged which motivates employees from different business functions to also address those sustainability issues that require more efforts.

As discussed previously in Propositions 2, 4, and 5, organic coordination mechanisms prove particularly effective for sparking interest in and convincing employees of the benefits associated with implementing sustainability. The more of such interest emerges, the better organic coordination mechanisms allow for fostering this resonance further without implying that sustainability is imposed by top management. Based on contingency theory’s concept of fit, we therefore propose:

*P<sub>8</sub>: Given an increasing degree of internal resonance and interest in sustainability, organic coordination mechanisms are more effective for internal coordination and ultimately foster the implementation of sustainable marketing.*

Our case material also provided insights on external sustainability communication, covering both the on-going processes and the results of sustainability efforts. More specifically, the case companies need to fulfil various external stakeholders’ expectations regarding content and form of publication of sustainability communication. Here, differing degrees of complexity have to be handled. Angus and Ewan each face a “manageable” group of external stakeholders, such as customers, NGOs, industry associations, and local communities, whose sustainability interests are rather homogeneous and, therefore, fairly easy to reconcile. Bryan, Chris and Dan, however, each have to deal with a far more heterogeneous group of stakeholders operating at different national levels and comprising additionally financial investors, retailers and different, partially conflicting customer segments. Balancing all those differing expectations by publishing coherent and comprehensive sustainability communication is undoubtedly a complex and challenging task.

In order to account for diverse interests of various external stakeholders and communicate a consistent and coherent overall sustainability “picture” that provides an umbrella to all those particular interests, mechanistic coordination mechanisms prove very effective. This type of structured internal coordination is particularly important in view of the visibility and transparency that a company willingly creates by sharing select sustainability information with the general public. In order to ensure the publication of reliable, “watertight” information in a straightforward and unambiguous way corresponding to a heterogeneous bundle of stakeholder-specific sustainability expectations, companies need to rely on clear structures, respon-

sibilities, and reporting lines. The clearly coordinated, vertical nature of mechanistic coordination allows for the required careful planning of content and form of publication of sustainability communication across all hierarchy levels and all involved business units. Based on contingency theory's concept of fit, we therefore propose:

*P<sub>9</sub>: Given the need to communicate sustainability efforts to very different external stakeholders, mechanistic coordination mechanisms are more effective for internal coordination and ultimately foster the implementation of sustainable marketing.*

Corresponding to  $P_2$  and  $P_5$ , the underlying understanding and scope constitute another context factor of relevance to the implementation of sustainable marketing and the need for internal coordination. While a broad understanding and scope of sustainable marketing implies also covering all sustainability dimensions, it refers mainly to reconciling internal and external sustainability communication. As such, it provides a meaningful indicator for a company's willingness to engage in stakeholder dialogue.

Angus is characterised by a market-focused sustainability approach, whose communicative coverage is rather straightforward due to its manageable homogeneous stakeholder landscape. Also Ewan faces little difficulties in reconciling communication needs of internal and external stakeholders, but its broader sustainability understanding requires intensified internal coordination to agree upon sustainability contents and their form of publication. Initially, Chris' and Dan's explicit focus on the duo of environmental and economic sustainability might be expected to decrease coordination complexity to a certain extent. However, the omission of social sustainability is overcompensated by the challenge of effectively coordinating manifold sustainability expectations of internal and external stakeholders. On top, Dan also needs to truly convince all employees of sustainability's benefits to ensure their motivation for implementing sustainability. Bryan has already recognised the necessity to reconcile external and internal sustainability communication in order to gain and maintain inward and outward credibility. An internally and externally shared understanding of sustainability allows for turning internal stakeholders into convincing and trustworthy "sustainability ambassadors" with an inestimably valuable multiplier effect. This reconciliation is achieved by deliberately communicating identical sustainability messages to internal and external stakeholders, covering all three dimensions according to Bryan's broad sustainability understanding. In order to provide internal stakeholders with good arguments and a sound comprehension of sustainability's advantages and challenges, Bryan recently even institutionalised a sustainability e-learning that is compulsory for employees from all hierarchy levels and business functions.



Bryan's approach to communicating and anchoring sustainability within and beyond its organisational boundaries provides a compelling illustration of the effectiveness of combining both mechanistic and organic coordination mechanisms to implement sustainable marketing measures of a larger scope and broader understanding. The broader the communication approach on sustainability, the more important becomes avoiding contradictions between internal and external communication, which can severely decrease stakeholders' trust in corporate efforts. Further, internal stakeholders' willingness might be reduced to take sustainability serious and work hard on its comprehensive implementation. This could prove rather dangerous, since internal stakeholders' conviction and comprehension of sustainability is vital for its implementation, particularly in larger companies. While this commitment can be fostered by organic coordination mechanisms, careful planning and vertical coordination across business units, i.e. mechanistic coordination mechanisms, are also required in order to ensure a completely coherent picture devoid of any sources for misunderstandings and contradictions. Based on contingency theory's concept of fit, we therefore propose:

*P<sub>10</sub>: Given an increasingly broad understanding and scope of sustainable marketing, both organic and mechanistic coordination mechanisms are needed for internal coordination and effective in ultimately fostering the implementation of sustainable marketing.*

## Sustainable Marketing: Understanding and Implementation

<b>Angus</b>	<ul style="list-style-type: none"> <li>▪ Market-driven interest in sustainability reflects increasing relevance of sustainability today and in the future</li> <li>▪ As the corporate culture historically incorporates values inherent to sustainability, internal interest in the concept itself is relatively low, since it is perceived to provide few “new” aspects. An intensified internal communication campaign on sustainability is thus neither perceived as necessary nor beneficial.</li> <li>▪ External stakeholder expectations on sustainability mainly centred on customer preferences and local community concerns; the reconciliation of external stakeholder expectations is thus fairly straightforward and simple</li> <li>▪ Few internal and external sustainability communication publications, but all sustainability dimensions covered</li> <li>▪ Communication complexity rather low due to comparable internal and external stakeholder expectations on sustainability communication</li> </ul>
<b>Bryan</b>	<ul style="list-style-type: none"> <li>▪ Historically defensive approach to sustainability communication increasingly offensive and transparent</li> <li>▪ Due to select bad experiences in the past, only communication of achieved results or established processes; no premature publication of future goals or potential activities</li> <li>▪ Illustrative and intuitive communication of meaningful and comprehensible details rather than general strategies</li> <li>▪ Internal interest in sustainability deliberately sparked by an active and well-accepted dedicated sustainability function offering its support as “remedy” to common business challenges, such as ensuring competitive product offerings or optimising internal processes</li> <li>▪ Following the proactive appraisal of sustainability’s virtues, definition of sustainability as one of five business priorities and subsequent implementation with renewed enthusiasm – both internally and externally</li> <li>▪ Diverse and heterogeneous expectations on sustainability communication by different stakeholder groups, such as *customers and NGOs, on several regional levels with partially even conflicting interests</li> <li>▪ Due to diversified internal and external communication needs, multifaceted sustainability communication in terms of details offered and sustainability dimensions covered, resulting in a rather high complexity</li> </ul>
<b>Chris</b>	<ul style="list-style-type: none"> <li>▪ Rather offensive communication approach to sustainability primarily geared towards fulfilling stakeholder expectations</li> <li>▪ Very extensive communication on generic sustainability goals and approaches (mainly on the strategic level), but few detailed explanations or illustrative examples of sustainability implementation in everyday business</li> <li>▪ Sustainability communication was initially one out of several external communication campaigns, but created an unexpected internal momentum sparked by the identification of sustainability as a “good thing”, offering many benefits, and allowing almost all business units to join in and contribute</li> <li>▪ Sustainability expectations of direct and indirect, internal and external stakeholders on various national levels extremely heterogeneous, resulting in a very complex situation requiring the reconciliation of content and manner of sustainability communication considering NGOs, customers, financial analysis, local communities, and the media</li> <li>▪ Sustainability communication activities thus manifold and very heterogeneous despite general similarity of internal and external stakeholders’ needs for sustainability communication</li> </ul>
<b>Dan</b>	<ul style="list-style-type: none"> <li>▪ Corresponding to a generally very competitive mindset and the general ethos to be best in class, internal interest in sustainability is mainly directed to the opportunity to enhance corporate competitiveness and demonstrate corporate predominance over competitors</li> <li>▪ Interest in sustainability thus very result-oriented and closely connected to the general market setting</li> <li>▪ Due to the nature of the product offering, various types of external stakeholders place differing expectations on sustainability communication, such as NGOs, local communities, retailers (as immediate customers), end-consumers, and financial analysts.</li> <li>▪ The multi-brand strategy typical to the fast-moving consumer goods industry further increases complexity of sustainability communication, which is thus very high despite general similarity of internal and external communication needs on sustainability</li> <li>▪ Communication complexity is further increased by the global production and sales set-up of the company requiring sustainability communication to address local needs, yet presenting a coherent and comprehensive global picture</li> </ul>
<b>Ewan</b>	<ul style="list-style-type: none"> <li>▪ Communication approach not subsumed under the sustainability label, but covers norms and values inherent to the idea of sustainability, such as longevity and sense of responsibility for both human beings and the environment</li> <li>▪ Despite impressive internalisation of values and norms transported by sustainability in all hierarchy levels, only limited interest in the concept and explicitly labelled “sustainability communication”</li> <li>▪ Some dedicated business functions deal explicitly with sustainability as part of sustainability certifications or reporting, but internal interest by the majority of employees rather limited</li> <li>▪ External stakeholders of relevance are customers, NGOs, industry associations and the local community; their expectations in terms of sustainability communication can be reconciled rather easily</li> <li>▪ Sustainability communication rather straightforward and relatively easy to handle due to large overlap of internal and external expectations and a well-established sustainability-oriented corporate culture</li> </ul>

Table 7: Case Descriptions on Understanding and Implementation of Sustainable Marketing

#### 4.4.5 Relative Importance of Internal Coordination on the Corporate and Functional Level

Having outlined various contingency factors inherent to the implementation of corporate sustainability as well as sustainability in sourcing and in marketing, we conclude with a comparison of the need for internal coordination induced in those three areas.

Our case material indicates that the implementation of sustainability on the corporate level relies even more on internal coordination than the implementation of sustainability on the functional level. While informants from purchasing and marketing/sales touched upon internal coordination in a rather secondary manner, several informants dedicated to the implementation of corporate sustainability highlighted internal coordination as an important prerequisite for the implementation of corporate sustainability.

*“Internal coordination always plays a central role in implementing sustainability. It is so important that it can even require organisational changes to be able to embrace the concept of sustainability to its full extent.”*

*(Environmental Strategy, Bryan)*

This is understandable, since implementing corporate sustainability necessarily requires the involvement of many business functions. Corporate sustainability is the result of joint efforts of all involved business functions and explicitly depends on the coordination of these functional efforts. Thus, it clearly has cross-functional implications, which is not necessarily the case when implementing sustainability on the functional level.

Our case data demonstrates that a purchasing function implementing sustainable sourcing coordinates this only to a limited extent with other business functions. Initially, we expected that the implementation of sustainable sourcing would require purchasing to consistently align its efforts with potentially changing market requirements to correspond to end-customer and end-consumer needs. This would have resulted in a continuous exchange with marketing and sales functions and potentially also production and R&D units to ensure a coherent consideration of market demands. Business practice revealed, however, that extensive coordination is only necessary with select functions and on select topics, for example, in the definition and set-up of sustainable sourcing criteria or the clarification of specific consequences resulting from individual supplier's non-compliance with sustainability standards. In other areas, some informants considered purchasing's internal coordination only as an optional “add-on” or even something to be avoided.

*“We are invited to cross-functional events taking place once a year or every quarter. In day-to-day business, however, our internal coordination is focused on few select business functions.”*

*(Purchasing, Dan)*

*“There is virtually no exchange between purchasing and sales and this is a good thing! With suppliers sometimes also acting as customers, any type of coordination between purchasing and sales might give rise to suspicions on unethical behaviour.”*

*(Sales, Chris)*

Taking into account the previously discussed need for intensified coordination to communicate sustainability efforts both internally and externally, the marketing function relies far more on internal coordination than the purchasing function in fulfilling the tasks associated with the implementation of sustainable marketing in daily business.

*“Defining and collecting all information on sustainability to be published externally has brought together various business units and functions. The resulting exchange has helped us to get a shared understanding of why certain sustainability efforts are undertaken and what we can communicate about these externally.”*

*(Marketing, Chris)*

We were surprised that purchasing and marketing rely to such differing degrees upon internal coordination, but came to the conclusion that this can be explained by two reasons. First, the nature of sustainability efforts in purchasing and marketing differs. Purchasing does need to understand the interconnectedness of its sustainable sourcing activities with the sustainability efforts of other functions; yet, beyond establishing sustainable sourcing criteria and clarifying their enforcement in practice, there is apparently little need for further day-to-day cross-functional exchange. Marketing, however, needs to coordinate all its communication efforts with other business functions in order to give up-to-date precise insights on overall sustainability efforts.

Second, differing needs for internal coordination result from the visibility of those functional sustainability efforts towards external stakeholders. In view of ever increasing levels of stakeholder scrutiny, marketing efforts in sustainability are, generally speaking, far more transparent to the general public than purchasing activities: While the communication of sustainability efforts as part of sustainable marketing constitutes the foundation for complying with stakeholder expectations, communication of sustainable sourcing practices is rarely detailed and seldom met by explicit interest of a general public.

Summarizing our insights on the relative importance of internal coordination, we can, thus, draw a twofold conclusion. In a first step, implementing corporate sustainability implies a greater need for internal coordination than the corresponding implementation on the functional level. In a second step, we propose that internal coordination is more important for implementing sustainability in the marketing function than in purchasing:

*P<sub>11</sub>: Internal coordination is more important for the implementation of corporate sustainability than for the implementation of sustainability on the functional level.*

*P<sub>12</sub>: Internal coordination is more important for the implementation of sustainable marketing than for the implementation of sustainable sourcing.*

## **4.5 Conclusion, Implications, and Further Research**

This chapter was dedicated to analysing the relevance of internal coordination for the implementation of corporate sustainability, sustainable sourcing, and sustainable marketing. Addressing a relevant research gap, this chapter offers a twofold contribution: On the one hand, it provides insights on the relevance of internal coordination for the implementation of sustainability on both the corporate and select functional levels. More specifically, our case material has demonstrated that (a) implementing corporate sustainability relies more heavily on internal coordination than implementing sustainability on the functional level and that (b) implementing sustainable marketing requires more internal coordination than implementing sustainable sourcing. On the other hand, we have identified distinct contingencies inherent to the implementation of sustainability and outline which type of coordination mechanism (organic and/or mechanistic) is most effective in fostering the internal coordination required for the implementation of sustainability.

Corresponding to the exploratory stage of this research field, our purpose was to provide a general overview of internal coordination's role for the implementation of sustainability and identify salient context factors inherent to the implementation of sustainability. As with any initialising research, these first findings should be further specified, for example, by investigating the implications of differing expectations of distinct stakeholders for the sustainability approach and the required internal coordination. Further, additional contingencies inherent to the implementation of sustainability should be examined, such as the influence of corporate history in social and environmental sustainability and the compatibility of select corporate cultures with different types of sustainability approaches. Finally, it would prove interesting

to analyse sustainability efforts in other business functions, such as sustainable production or sustainable logistics efforts, and to which extent they rely upon internal coordination.

In terms of methodology used, case study research is particularly well-suited to exploratory investigations (Yin, 2009). However, this approach does have some limitations, such as the inherent problem of generalising from a limited number of cases. Readily acknowledging this problem, we see a need for further studies proving for generalisations in this under-researched area of the relevance of internal coordination to the implementation of sustainability, for example by empirically testing the research propositions previously derived.

Furthermore, it might prove interesting to extend the geographical focus of future studies beyond Central Europe to take into account the influence of cultural predispositions and market characteristics on sustainability approaches. Also, analysing and contrasting cases from select industries can provide deeper insights into the influence of industry standards and market conditions on the implementation of sustainability.

However, despite all possibilities for future research, our findings already offer some relevant managerial implications. Providing practitioners with valuable insights on the relevance of internal coordination for the implementation of corporate sustainability on the corporate and select functional levels, this research sensitises business practice to consider internal coordination as one success factor of implementing sustainability. Beyond creating this general awareness, we provide useful evidence on the effectiveness of organic and mechanistic coordination mechanisms for fostering the implementation of sustainability depending on the specific sustainability approach chosen and individual characteristics of the companies. Furthermore, the mere fact that purchasing and marketing functions need differing degrees of coordination for implementing their respective functional sustainability efforts argues the case for very considerate and tailor-made coordination approaches: Each business function's need for internal coordination has to be assessed individually and carefully, taking into account its respective responsibilities and degree of interdependence with other business functions in order to find an optimum of effective and efficient internal coordination suitable for sustainability implementation.

We hope that this chapter will encourage and support both industry practice and future research to further improve the implementation of corporate sustainability by ensuring internal coordination to the necessary extent as one essential and, so far, overlooked piece of the puzzle on how to ensure and foster corporate sustainability.

## **5 Concluding Remarks**

## 5.1 Main Research Findings

In view of the consistently growing body of knowledge on the concept of corporate sustainability, this dissertation is dedicated to providing additional insights on the implementation of sustainable sourcing as an essential lever to ensure overall corporate sustainability (Tate et al., 2010). To this purpose, it covers the basic concept of sustainable sourcing, its translation into business practice, and the relevance of internal coordination for the implementation of corporate and functional sustainability efforts. In order to do so, a three-step approach relying upon several research methods was taken.

First, a literature review establishes a comprehensive overview of the existing knowledge on the organisational set-up of the purchasing function. This characterisation of the business function that is responsible for the implementation of sustainable sourcing constitutes the basis for further elaborations on the concept of sustainable sourcing and the challenges associated with its implementation. Second, a conceptual approach is pursued to operationalise sustainable sourcing and clarify how the purchasing function is urged to implement sustainable sourcing. The conceptual assessment of internal and external stakeholders' salience and their influence on resulting sustainable sourcing archetypes is complemented by a third part relying on qualitative empirical research. Investigating the relevance of internal coordination for the implementation of sustainable sourcing, sustainable marketing, and corporate sustainability, this last chapter identifies contingency factors inherent to the implementation of sustainability, which, in turn, result in a need for organic coordination, mechanistic coordination, or both. More specifically, this dissertation reveals the following insights.

Chapter 2 provides a comprehensive overview of previously gained insights on the purchasing organisation by reviewing 212 articles from 45 peer-reviewed journals published over the last 50 years within and beyond the purchasing community. Based upon a broad search strategy and following a rigorous methodological approach, this literature review includes descriptive findings as well as a detailed content analysis. The descriptive analysis reveals, for example, that less than half of the articles on purchasing organisation have been published in purchasing and supply management journals (only 46%). Marketing publications account for 26% and the remaining articles stem from SCM and logistics (8%), operations management (8%), general management (6%), and miscellaneous journals (6%).

Based upon a thorough content analysis of these articles, the content analysis addresses the Research Question 1 and, thus, identifies and characterises twelve distinct research areas. Being established inductively based upon the sampled articles' content, these research areas



comprise the entire existing body of knowledge on the organisation of the purchasing function. Furthermore, the detailed analysis of these research areas' evolution over time provides purchasing research with plentiful insights on the historical emergence of research topics and their subsequent development until today. As has been noted before, for example by Wynstra (2010), such a comprehensive and structured literature review is particularly helpful to get an overview of what has been researched before and where the discipline could be heading in the future.

In order to answer Research Question 2 and offer an outlook on future research avenues concerning the organisation of the purchasing function, the identified research areas have been connected to new trends challenging the field of purchasing organisation. Initially realising that it is always a bundle of trends impacting on each research area, it is demonstrated further that, against all expectations, almost all research areas remain relevant for the years to come, independent from their past evolution. More specifically, there are several research avenues for each research area, which results in a multitude of different avenues for further research. The continuous relevance of the research areas in the future, however, further confirms the value of their inductive identification from the existing body of knowledge in a sense of data triangulation.

Overall, this chapter does not only serve to pave the way for being able to subsequently consider the implementation of sustainable sourcing and its implications for the purchasing function but also identifies a need for future research to enhance and complement the findings of the past 50 years.

The purpose of Chapter 3 is to advance the general understanding of the implementation of sustainable sourcing. Relying upon a conceptual approach and utilising stakeholder theory as the theoretical underpinning, it provides a threefold contribution to academia and practice.

First, corresponding to Research Question 3, sustainable sourcing is operationalised. Building upon this operationalisation, this chapter identifies eight sustainable sourcing profiles which correspond to different approaches of implementing sustainable sourcing. Complementing the minimalistic and the perfectionistic approaches, companies can choose between specialist profiles emphasising one out of the three sustainability dimensions and a dual focus on sustainable sourcing as exemplified by the "social environmentalist" profile. Beyond enabling companies to recognise the status quo of their respective implementation of sustainable sourcing, these profiles also serve to illustrate potential strategic alternatives for future development of sustainable sourcing efforts.

Second, answering Research Question 4, this chapter draws on stakeholder theory to identify internal and external stakeholders whom the purchasing function should consider in implementing sustainable sourcing. To this purpose, three groups of stakeholders are distinguished, i.e., (1) company-internal stakeholders, namely functional management, corporate management, and purchasing's internal customers, (2) supply chain-internal stakeholders, namely customers and suppliers, and (3) supply chain-external stakeholders, namely competitors, regulatory authorities, and NGOs. Extending previous research (e.g., Maignan and McAlister, 2003), the chapter further discusses those direct and indirect stakeholders' salience in placing claims on the purchasing function and the influence of these claims on the aforementioned sustainable sourcing profiles and their development over time.

Third, as a response to Research Question 5, this chapter reveals that the purchasing function, indeed, has to change its internal and external relationships due to and in the course of implementing sustainable sourcing towards ensuring a more systematic and closer interaction. Furthermore, this chapter identifies two types of challenges the purchasing function has to meet when implementing sustainable sourcing. On the one hand, the traditionally supplier-focused purchasing function needs to intensify its sensitivity and responsiveness of salient stakeholders' expectations concerning corporate sustainability. On the other hand, this increased stakeholder responsiveness requires purchasing to communicate and cooperate systematically with internal suppliers and customers, such as the sales and marketing departments.

Overall, this chapter does not only establish a sound understanding of sustainable sourcing and the salient stakeholder groups placing claims on the purchasing function but also emphasises the relevance of sustainable sourcing to both purchasing managers in business practice and researchers in academia.

Chapter 4 addresses the relevance of internal coordination for the implementation of sustainable sourcing, sustainable marketing, and corporate sustainability and, as such, represents an explorative approach to a rather unexplored research field. Corresponding to different calls for research (Aragón-Correa and Sharma, 2003; Carter, 2004; Carter and Carter, 1998; Carter and Jennings, 2004), a case study research design relying upon a contingency approach is followed to analyse the relevance of internal coordination for the implementation of sustainability in general and the relevance of organic and mechanistic coordination mechanisms in particular. More specifically, twelve propositions are derived in this chapter, which address five different aspects of internal coordination related to the implementation of sustainability.

First, case material indicates that internal coordination serves indeed as a facilitator for the implementation of corporate sustainability, thereby answering Research Question 6. Considering the complete lack of research on the relevance of internal coordination to the implementation of any sustainability efforts, this finding paves the way for subsequently analysing the type of internal coordination required for implementing sustainability on different levels.

Corresponding to Research Question 7, the second section of propositions identifies three contingency factors relevant to the implementation of corporate sustainability as well as their implications on the effectiveness of organic coordination mechanisms, mechanistic coordination mechanisms, or both. While a “light and playful” sustainability approach has been shown to require organic coordination, the existence of business functions explicitly dedicated to addressing sustainability results in a need for mechanistic coordination, whereas a proactive sustainability strategy implies both organic and mechanistic coordination.

Research Question 8 is answered in two parts. Reflecting the set-up of the previous section, the third group of propositions identifies contingency factors relevant to the implementation of sustainable sourcing and the resulting need for organic and/ or mechanistic coordination mechanisms. In view of a broad understanding and scope of sustainable sourcing, organic coordination has been proven particularly effective, whereas a certain power of the focal company over its upstream supply chain requires internal coordination of the mechanistic type. Finally, the intention to externally communicate sustainable sourcing practices renders both organic and mechanistic coordination mechanisms effective.

Congruent with the previous sections, the fourth group of propositions focuses on contingencies relevant to the implementation of sustainable marketing and the resulting effectiveness of organic and mechanistic coordination mechanisms. While an increasing degree of internal resonance and interest in sustainability is best met with organic coordination mechanisms, the need to communicate sustainability efforts to very different external stakeholders requires mechanistic coordination. Contrasting the findings for sustainable sourcing, a broad understanding and scope of sustainable marketing requires internal coordination of both organic and mechanistic types.

The fifth and final section of propositions explicates that the implementation of corporate sustainability relies more on internal coordination than the implementation of sustainability on the functional level. Additionally, it has been distinguished further that the implementation of sustainability efforts in the marketing function requires more internal coordination than the corresponding efforts in the purchasing function.

Corresponding to the exploratory stage of this research field, the purpose was to provide a general overview of internal coordination's role for the implementation of sustainability and identify salient context factors inherent to the implementation of sustainability.

Overall this chapter does not only establish a first sound understanding on the relevance of internal coordination for the implementation of sustainability but also further specifies this need for internal coordination according to the level of implementation (corporate vs. functional) as well as the effectiveness of different types of internal coordination mechanisms (organic vs. mechanistic).

In sum, this dissertation serves to elucidate the implementation of sustainable sourcing and some of the challenges the purchasing function has to cope with during its implementation. Contributing to a rather young research field, the answers to the eight research questions covered shed some first light on previously rather "blank areas" of the research landscape. By characterising purchasing as the business function implementing sustainable sourcing, clarifying the concept of sustainable sourcing and the stakeholders driving its implementation, and discussing internal coordination as an essential facilitator for this implementation, this dissertation is dedicated to providing meaningful, timely, and interesting insights concerning so far unexplored topics. Connected to this purpose is, certainly, the aspiration to make a notable and ideally long-lasting, sustainable contribution to current and future research.

## **5.2 Avenues for Further Research**

On the basis of the research findings previously outlined, this final section is devoted to taking a step back and placing the detailed research avenues explicated in the Chapters 2-4 in a broader picture of future research avenues in the discipline. Beyond considerations on methodology and theoretical foundations for future research, four fields of future research emerge inductively from the overall research design and focus of this dissertation, namely the further refinement of the concept of sustainable sourcing and its implementation as such (1), the need for internal (2) and external (3) coordination resulting from these efforts as well as the organisational implications of implementing sustainable sourcing for the purchasing function (4).

Research on sustainable sourcing is still gaining momentum and receiving increasing attention both in numbers of publications and the breadth of aspects analysed. While there has been some exploratory work (e.g., Reuter et al., 2010), the general concept of sustainable

sourcing as well as its operationalisation still deserve some more considerations and further refinement as a prerequisite for additional research in the field. Currently, there is no widespread agreement on a manageable definition of sustainable sourcing and the criteria of its implementation neither between researchers and practitioners nor among practitioners of different companies, let alone industries. Without such a consensus it will remain difficult to correctly describe current industry practice and to further advance the understanding of existing potential for improving this current business practice.

Building consensus on the concept of sustainable sourcing and its implementation could be enhanced by research delving into more specific details of operative sustainable sourcing practices. Beyond publishing general sustainability requirements, current industry practice can be distinguished by the degree of proactivity or reactivity of the respective sustainable sourcing approaches. The case material of this dissertation shows that some companies focus their sustainable sourcing efforts on *responding* to misbehaviours on the part of suppliers, relying, for example, on so called “emergency expert teams” to help those deviant suppliers in changing their corresponding business practices to remain part of the supply base. Other companies prefer to invest in *preventing* irresponsible supplier behaviour by implementing obligatory sustainability audit processes and supplier development programs geared towards supporting suppliers up front in meeting the focal company’s sustainability requirements. While this represents just one out of many aspects of sustainable sourcing practices that still deserve detailed research investigations, gaining deeper insights into such more specific aspects will most probably be of use both to academia and to business practice to further enhance the understanding of sustainable sourcing as a concept and the challenges associated with its implementation.

Extending the perspective on the different challenges associated with implementing sustainable sourcing leads directly to the aforementioned need to coordinate these efforts internally with other business functions. Although internal coordination in general has been researched quite extensively (Germain et al., 2008; Jarzabkowski and Balogun, 2009; Lambert et al., 2008), plentiful research opportunities arise in this context following an increasingly comprehensive understanding of different aspects of sustainable sourcing. First, it would be interesting to map currently existing coordination efforts of the purchasing function in order to establish an overview of those business functions that purchasing is already in exchange with and those which might be somewhat neglected so far.

In a second step, it would be worthwhile to investigate the internal coordination associated with specific sustainable sourcing practices, such as the usage of reactive “emergency expert teams”. Undoubtedly, different sustainable sourcing approaches result in differing needs for internal coordination – a fact which might even influence the decision in favour of or against specific sustainable sourcing measures. In order to pursue an increasingly strict enforcement of sustainable sourcing criteria in supplier management, purchasing might, for example, consider establishing a legal binding force of sustainability requirements. Defining consequences for supplier misbehaviour, such as instant contract termination or penalties, and fixing these according to legal standards requires coordinating sustainable sourcing efforts with the legal department. In such settings, future research can yield interesting insights on the process of intensifying sustainable sourcing efforts and final outcomes depending upon the availability, willingness, and appropriate qualification of neighbouring business functions whose input is desired or even necessary. Thereby, it would be particularly interesting to analyse whether cooperation willingness and outcome differ among departments that are in regular exchange with the purchasing function, for example as internal customers or suppliers of purchasing, and those which have, so far, not had much interaction with purchasing.

Mirroring the need for internal coordination resulting from the implementation of sustainable sourcing, this dissertation reveals that also external stakeholder should be systematically taken into account by the purchasing function. The importance of stakeholder management in the purchasing function has been highlighted for more than a decade now (Carter et al., 2000), however, despite its undoubted relevance for the purchasing function (Carter and Jennings, 2004), stakeholder management does still not figure among the research fields typically associated with purchasing and supply management research (cf. overviews over past research in the field, such as Wynstra, 2010).

Considering the significant importance of stakeholder management for the implementation of sustainable sourcing future research on different aspects of stakeholder management by purchasing would be certainly more than helpful. With regards to the implementation of sustainable sourcing, it would be very useful to enhance the understanding of its implementation by mapping distinct stakeholder management approaches pursued by different companies in differing industry sectors. As the industry context has already been (conceptually) identified as an important influence factor for the implementation of sustainable sourcing (Reuter et al., 2010), it would not be surprising to find very distinct stakeholder management approaches in different company and industry settings.

In view of limited research in the field, there remain research opportunities aplenty; addressing these would not only contribute to general insights on the importance of stakeholder management by the purchasing function but also advance our understanding of the implementation of sustainable sourcing.

Finally, the concept of sustainable sourcing does not only entail challenges concerning its implementation but, most probably, also results in organisational implications for the purchasing function as the entity being originally responsible for sustainable sourcing. Owing to the somewhat limited body of research on sustainable sourcing and the rather young age of this research field, the consequences and resulting implications of implementing sustainable sourcing have, so far, not been addressed to a great extent. As this dissertation demonstrates, however, there are organisational implications associated with an enlarged set of responsibilities and the change management necessary to consider these new requirements in all relevant processes towards all relevant suppliers. These should be explored in more detail in the future to provide both academia and business practice with a better understanding of what implementing sustainable sourcing can imply in the shorter and the longer term. Additionally, there are, most certainly, further organisational consequences of implementing sustainable sourcing in terms of qualification of employees, adjustment of processes and tools as well as purchasing's incentive systems. Further research could draw directly upon the various aspects of purchasing organisation covered in Chapter 2 to determine different organisational aspects which can and probably will be influenced by the implementation of sustainable sourcing. A more profound knowledge of these different implications will be of inestimable value to academic research and managerial practice alike.

Overall, there are still aplenty research opportunities regarding sustainable sourcing which are impossible to specify in their entirety. This thesis, however, should have contributed to rising and intensifying the awareness that the challenges associated with the implementation of sustainable sourcing deserve further attention and provide abundant research avenues of relevance to both academia and practice.

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# 7 Appendix

## 7.1 Appendix 1: Reviewed Articles

This table lists all reviewed 212 articles and their assigned (focus) research areas. To condense the table, the research areas are abbreviated with the letters A to K as follows:

- A Structure & Formalities
- B Relationship Management
- C Strategic Performance & Measurement
- D Everyday Processes & Policies
- E Evolving Responsibilities
- F Strategic Alignment
- G Buying Centres & Purchasing's Status
- H HR & Change Management
- I Decision Making
- J Organisational Learning
- K Leadership & Culture
- L IT & E-Business

Article	Focus Research areas	Further Research areas
1 Andersen, P.H., Rask, M., 2003. Supply chain management: New organisational practices for changing procurement realities. <i>Journal of Purchasing and Supply Management</i> , 9 (2), 83-95.	A	B, D, E, F, H
2 Anderson, P.F., Chambers, T.M., 1985. A reward/measurement model of organizational buying behavior. <i>Journal of Marketing</i> , 49 (2), 7-23.	C	G, H
3 Arbin, K., 2008. The structure of determinants of individual adoption and use of e-ordering systems. <i>Human Systems Management</i> , 27 (2), 143-159.	L	A, H, K
4 Arkader, R., Ferreira, C.F., 2004. Category management initiatives from the retailer perspective: A study in the Brazilian grocery retail industry. <i>Journal of Purchasing and Supply Management</i> , 10 (1), 41-51.	D	A
5 Arnold, U., 1999. Organization of global sourcing: Ways towards an optimal degree of centralization. <i>European Journal of Purchasing and Supply Management</i> , 5 (3-4), 167-174.	A	F
6 Arnold, U., Kärner, H., Schnabel, M., 2005. Target-oriented use of strategic sourcing tools: A critical analysis creating process awareness for electronic reverse auctions. <i>Journal of Purchasing and Supply Management</i> , 11 (2/3), 116-128.	D, L	C
7 Baines, T., Kay, G., 2002. Manufacturing sourcing practices and relationships. <i>International Journal of Logistics Management</i> , 13 (2), 101-113.	D	B, F, H, I
8 Bakker, E., Zheng, J., Knight, L., Harland, C., 2008. Putting e-commerce adoption in a supply chain context. <i>International Journal of Operations and Production Management</i> , 28 (4), 313-330.	L	A
9 Barclay, D.W., 1991. Interdepartmental conflict in organizational buying: The impact of the organizational context. <i>Journal of Marketing Research</i> , 28 (2), 145-159.	B	A, H
10 Barclay, D.W., 1992. Organizational buying outcomes and their effects on subsequent decision. <i>European Journal of Marketing</i> , 26 (4), 48.	E, G, I	C
11 Barragan, S., Cappellino, C., Dempsey, N., Rothenberg, S., 2003. A framework for sourcing product development services. <i>Supply Chain Management: An International Journal</i> , 8 (3), 271-280.	D, F	B
12 Bellizzi, J.A., Belonax, J.J., 1982. Centralized and decentralized buying influences. <i>Industrial Marketing Management</i> , 11 (2), 111-115.	G	B, C

	Article	Focus Research areas	Further Research areas
13	Berkowitz, M., 1986. New product adoption by the buying organization: Who are the real influencers? <i>Industrial Marketing Management</i> 15 (1), 33-43.	G, I	B, D
14	Bird, M.M., Mazza, E.M., 1976. Measuring the efficiency of the industrial purchasing department. <i>Industrial Marketing Management</i> , 5 (1), 17-22.	C	B
15	Black, D.E., 1995. Measuring relative productivity and staffing levels in a federal procurement office. <i>Journal of Supply Chain Management</i> , 31 (3), 43-50.	C	D, H
16	Boyer, K.K., Olson, J.R., 2002. Drivers of internet purchasing success. <i>Production and Operations Management</i> , 11 (4), 480-498.	L	C, F
17	Brandes, H., 1994. Strategic changes in purchasing: Two main tracks. <i>European Journal of Purchasing and Supply Management</i> , 1 (2), 77-87.	F, H	A, D, E
18	Brandmeier, R.A., Rupp, F., 2010. Benchmarking procurement functions: Causes for superior performance. <i>Benchmarking: An International Journal</i> , 17 (1), 5-26.	A	B, C, H
19	Brenner, W., Hamm, V., 1996. Information technology for purchasing in a process environment. <i>European Journal of Purchasing and Supply Management</i> , 2 (4), 211-219.	L	E
20	Brown, A.W., 1976. Technical support for procurement. <i>Journal of Purchasing and Materials Management</i> , 12 (1), 8-14.	A, H	B, C, E
21	Brun, A., Corti, D., Cozzini, S., 2004. Value assessment of e-procurement projects: A modular methodology. <i>Production Planning and Control</i> , 15 (7), 742-760.	C, L	F, I
22	Bryntse, K., 1996. The purchasing of public services exploring the purchasing function in a service context. <i>European Journal of Purchasing and Supply Management</i> , 2 (4), 193-201.	D	A, H
23	Buckles, T.A., Ronchetto, J.R., 1996. Examining an industrial buyer's purchasing linkages: A network model and analysis of organizational buying workflow. <i>Journal of Business and Industrial Marketing</i> , 11 (6), 74-92.	D, G	B
24	Call, R.V., 1968. Purchasing in the academic institution. <i>Journal of Purchasing</i> , 4 (2), 70-77.	D	A, F
25	Carr, A.S., Smeltzer, L.R. 2000. An empirical study of the relationships among purchasing skills and strategic purchasing, financial performance, and supplier responsiveness. <i>Journal of Supply Chain Management</i> , 36 (3), 40-54.	H	C, F
26	Carter, J.R., Narasimhan, R., 1996. Purchasing and supply management: Future directions and trends. <i>Journal of Supply Chain Management</i> , 32 (4), 2-12.	E	A, B, F, J
27	Cavinato, J.L., 1991. Evolving procurement organizations: Logistics implications. <i>Journal of Business Logistics</i> , 13 (1), 27-45.	E	A, B
28	Cavinato, J.L., 1999. Fitting purchasing to the five stages of strategic management. <i>European Journal of Purchasing and Supply Management</i> , 5 (2), 75-83.	E, F	B, C, H
29	Cousins, P.D., Lawson, B., Squire, B., 2006b. An empirical taxonomy of purchasing functions. <i>International Journal of Operations and Production Management</i> , 26 (7), 775-794.	A, C	B, E, H
30	Cousins, P.D., Spekman, R., 2003. Strategic supply and the management of inter- and intra-organisational relationships. <i>Journal of Purchasing and Supply Management</i> , 9 (1), 19-29.	F	B, C, E, H, K
31	Croell, R.C., 1980. Measuring purchasing effectiveness. <i>Journal of Purchasing and Materials Management</i> , 16 (2), 22-26.	C	B, E, F
32	Croom, S., Brandon-Jones, A., 2007. Impact of e-procurement: Experiences from implementation in the UK public sector. <i>Journal of Purchasing and Supply Management</i> , 13 (4), 294-303.	L	A, C, D, E, K

	<b>Article</b>	<b>Focus Research areas</b>	<b>Further Research areas</b>
33	Csáki, C., Gelléri, P., 2005. Conditions and benefits of applying decision technological solutions as a tool to curb corruption within the procurement process: The case of Hungary. <i>Journal of Purchasing and Supply Management</i> , 11 (5-6), 252-259.	D	K, L
34	Dai, R., Narasimhan, S., Wu, D.J., 2005. Buyer's efficient e-sourcing structure: Centralize or decentralize? <i>Journal of Management Information Systems</i> , 22 (2), 141-164.	L	A, F
35	Das, A., Narasimhan, R., 2000. Purchasing competence and its relationship with manufacturing performance. <i>Journal of Supply Chain Management</i> , 36 (2), 17-28.	D, E, F	B, C
36	David, J.S., Hwang, Y., Pei, B.K.W., Reneau, J.H., 2002. The performance effects of congruence between product competitive strategies and purchasing management design. <i>Management Science</i> , 48 (7), 866-885.	C	A, F
37	de Boer, L., Ebben, M., Pop Sitar, C., 2003a. Studying purchasing specialization in organizations: A multi-agent simulation approach. <i>Journal of Purchasing and Supply Management</i> , 9 (5-6), 199-206.	A	C, D, F, J
38	de Boer, L., Harink, J., Govert, H., 2002. A conceptual model for assessing the impact of electronic procurement. <i>European Journal of Purchasing and Supply Management</i> , 8 (1), 25-33.	L	C
39	de Boer, L., Holmen, E., Pop Sitar, C., 2003b. Purchasing as an organizational design problem: The case of non-product-related items and services. <i>Management Decision</i> , 41 (9), 911-922.	A, D	B, E
40	Dowlatshahi, S., 1997. The role of product design in designer-buyer-supplier interface. <i>Production Planning and Control</i> , 8 (6), 522-532.	B	
41	Driedonks, B.A., Gevers, J.M.P., van Weele, A.J., 2010. Managing sourcing team effectiveness: The need for a team perspective in purchasing organizations. <i>Journal of Purchasing and Supply Management</i> , 16 (2), 109-117.	B	A, C, H, K
42	Drumwright, M.E., 1994b. Socially responsible organizational buying: Environmental concern as a noneconomic buying criterion. <i>Journal of Marketing</i> , 58 (3), 1-19.	D, F	
43	Dumond, E.J., 1994b. Moving toward value-based purchasing. <i>Journal of Supply Chain Management</i> , 30 (2), 2-7.	E, F	B, C
44	Dumond, E.J., 1994. Making best use of performance measures and information. <i>International Journal of Operations and Production Management</i> , 14 (9), 16-31.	C	I, K
45	Easton, L., Murphy, D.J., Pearson, J.N., 2002. Purchasing performance evaluation: With data envelopment analysis. <i>European Journal of Purchasing and Supply Management</i> , 8, 123-134.	C	
46	Ellram, L.M., Carr, A., 1994. Strategic purchasing: A history and review of the literature. <i>Journal of Supply Chain Management</i> , 30 (2), 9-19.	E, F	B, C
47	Ellram, L.M., Zsidisin, G.A., Siferd, S.P., Stanly, M.J., 2002. The impact of purchasing and supply management activities on corporate success. <i>Journal of Supply Chain Management</i> , 38 (1), 4-17.	C, F	B, D, E, L
48	Emiliani, M.L., 2000. Business-to-business online auctions: Key issues for purchasing process improvement. <i>Supply Chain Management: An International Journal</i> , 5 (4), 176-186.	D, L	C, F
49	Emiliani, M.L., Stec, D.J., Grasso, L.P., 2005. Unintended responses to a traditional purchasing performance metric. <i>Supply Chain Management: An International Journal</i> , 10 (3), 150-156.	C, F	
50	Englyst, L., Jørgensen, F., Johansen, J., Mikkelsen, O.S., 2008. Commodity team motivation and performance. <i>Journal of Purchasing and Supply Management</i> , 14 (1), 15-27.	C, H	A, B, D, K
51	Enis, B.M., Smith, S.V., 1980. A marketing perspective for purchasing management. <i>Journal of Purchasing and Materials Management</i> , 16 (3), 11-17.	A	B

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52	Faes, W., Knight, L., Matthyssens, P., 2001. Buyer profiles: An empirical investigation of changing organizational requirements. <i>European Journal of Purchasing and Supply Management</i> , 7 (3), 197-208.	H	E, K
53	Farrell, M., Schroder, B., 1999. Power and influence in the buying centre. <i>European Journal of Marketing</i> , 33 (11/12), 1161-1170.	B, G	D, I
54	Fearon, H.E., 1989. Historical evolution of the purchasing function. <i>Journal of Purchasing and Materials Management</i> , 25 (1), 71-81.	E	A
55	Fredendall, L.D., Hopkins, C.D., Bhonsle, A., 2005. Purchasing's internal service performance: Critical external and internal determinants. <i>Journal of Supply Chain Management</i> , 41 (2), 26-38.	C	B, K
56	Freeman, V.T., Cavinato, J.L., 1992. Fostering strategic change in a function through executive education: The case of purchasing. <i>Journal of Management Development</i> , 11 (6), 25-30.	E, H	F
57	Fung, P., 1999. Managing purchasing in a supply chain context - evolution and resolution. <i>Logistics Information Management</i> , 12 (5), 362-367.	E	A, B, J
58	Gadde, L.-E., Håkansson, H., 1994. The changing role of purchasing: Reconsidering three strategic issues. <i>European Journal of Purchasing and Supply Management</i> , 1 (1), 27-35.	E	A, B
59	Ganeshan, R., J. Ring, L., Strong, J.S., 2007. A mathematical approach to designing central vs. local ordering in retail. <i>International Journal of Production Economics</i> , 108 (1/2), 341-348.	A	C, D
60	Garrido-Samaniego, M.J., Gutiérrez-Arranz, M.A., San José-Cabezudo, R., 2010. Assessing the impact of e-procurement on the structure of the buying centre. <i>International Journal of Information Management</i> , 30 (2), 135-143.	A, G, L	B, D
61	Garrido-Samaniego, M.J., Gutiérrez-Cillán, J., 2004. Determinants of influence and participation in the buying center. An analysis of Spanish industrial companies. <i>Journal of Business and Industrial Marketing</i> , 19 (5), 320-336.	G	A, B, D, H
62	Germain, R., Dröge, C., 1997. Effect of just-in-time purchasing relationships on organizational design, purchasing department configuration, and firm performance. <i>Industrial Marketing Management</i> , 26 (2), 115-125.	D	A, C
63	Giunipero, L.C., 1982. Entry level purchasing - demand and requirements. <i>Journal of Purchasing and Materials Management</i> , 18 (2), 10-16.	H	E
64	Giunipero, L.C., 1984. Purchasing's role in computer buying: A comparative study. <i>Industrial Marketing Management</i> , 13 (4), 241-248.	D	A, E
65	Giunipero, L.C., Dawley, D., Anthony, W.P., 1999. The impact of tacit knowledge on purchasing decisions. <i>Journal of Supply Chain Management</i> , 35 (1), 42-49.	I	H
66	Giunipero, L.C., Handfield, R.B., Eltantawy, R., 2006. Supply management's evolution: Key skill sets for the supply manager of the future. <i>International Journal of Operations and Production Management</i> , 26 (7), 822-844.	H	A, B, C, E
67	Giunipero, L.C., Monczka, R.M., 1993. Organisational approaches to managing international sourcing. <i>International Journal of Physical Distribution and Logistics Management</i> , 20 (4), 3-12.	A	E, F
68	Giunipero, L.C., Percy, D.H., 2000. World-class purchasing skills: An empirical investigation. <i>Journal of Supply Chain Management</i> , 36 (4), 4-13.	H	E, F, K
69	Goebel, D.J., Marshall, G.W., Locander, W.B., 2003. Enhancing purchasing's strategic reputation: Evidence and recommendations for future research. <i>Journal of Supply Chain Management</i> , 39 (2), 4-14.	B, E	C, F
70	Goh, M., Lau, G.T., Neo, L., 1999. Strategic role and contribution of purchasing in Singapore: A survey of CEOs. <i>Journal of Supply Chain Management</i> , 35 (4), 12-23.	C, E	B, F



	Article	Focus Research areas	Further Research areas
71	González-Benito, J., 2007. Information technology investment and operational performance in purchasing - the mediating role of supply chain management practices and strategic integration of purchasing. <i>Industrial Management and Data Systems</i> , 107 (2), 201-228.	C, L	B, D, F
72	Grashof, J.F., 1979. Sharing the purchasing decision. <i>Journal of Purchasing and Materials Management</i> , 15 (2), 26-32.	I	A, D, G
73	Gronhaug, K., 1978. Participation in organizational buying: Some conceptual and methodological problems. <i>Advances in Consumer Research</i> , 5 (1), 635-638.	G	
74	Gronhaug, K., Venkatesh, A., 1991. Needs and need recognition in organisational buying. <i>European Journal of Marketing</i> , 25 (2), 17-32.	G	A, D, H
75	Gunasekaran, A., Patel, C., Tirtiroglu, E., 2001. Performance measures and metrics in a supply chain environment. <i>International Journal of Operations and Production Management</i> , 21 (1/2), 71-87.	C	
76	Hallenbeck, G.S., Hautaluoma, J.E., Bates, S.C., 1999. The benefits of multiple boundary spanning roles in purchasing. <i>Journal of Supply Chain Management</i> , 35 (2), 38-43.	E, H	B, C
77	Handfield, R., Petersen, K., Cousins, P., Lawson, B., 2009. An organizational entrepreneurship model of supply management integration and performance outcomes. <i>International Journal of Operations and Production Management</i> , 29 (2), 100-126.	H	B, C, K
78	Harmon, G.M., 1966. Purchasing and logistics management. <i>Journal of Purchasing</i> , 2 (1), 32-42.	E, L	F
79	Harris, L., Parker, D., Cox, A., 1998. UK privatization: Its impact on procurement. <i>British Journal of Management</i> , 9 (3), 13-26.	E	A, C, D, F, H
80	Hartmann, E., Trautmann, G., Jahns, C., 2008. Organisational design implications of global sourcing: A multiple case study analysis on the application of control mechanisms. <i>Journal of Purchasing and Supply Management</i> , 14 (1), 28-42.	C	A, F
81	Hays, M.A., 1973. Auditing the purchasing department. <i>Journal of Purchasing</i> , 9 (2), 45-54.	C	A, B
82	Hill, R., 1972. A changing role for purchasing? <i>Management Decision</i> , 10 (3), 269-282.	E	A, C, G, H
83	Howson, T.G., Dale, B.G., 1991. An examination of the purchasing function in a sales-oriented company. <i>International Journal of Operations and Production Management</i> , 11 (5), 71-82.	E	B, C, K
84	Hult, G.T.M., 1998. Managing the international strategic sourcing process as a market-driven organizational learning system. <i>Decision Sciences</i> , 29 (1), 193-216.	J	B, C, D, F, G
85	Hult, G.T.M., Ferrell, O.C., Schul, P.L., 1998. The effect of global leadership on purchasing process outcomes. <i>European Journal of Marketing</i> , 32 (11/12), 937-1050.	G, K	C
86	Hult, G.T.M., Nichols Jr., E.L., 1999. A study of team orientation in global purchasing. <i>Journal of Business and Industrial Marketing</i> , 14 (3), 194-212.	B, K	G
87	Humphreys, P., 2001. Designing a management development programme for procurement executives. <i>Journal of Management Development</i> , 20 (7), 604-623.	H	E
88	Humphreys, P., McIvor, R., McAleer, E., 1998. The purchasing function as a professional service firm: Implications for training and development. <i>Journal of European Industrial Training</i> , 22 (1), 3-11.	H	E
89	Humphreys, P., McIvor, R., McAleer, E., 2000. Re-engineering the purchasing function. <i>European Journal of Purchasing and Supply Management</i> , 6 (2), 85-93.	H	E
90	Hunter, G.K., Bunn, M.D., Perreault Jr., W.D., 2006. Interrelationships among key aspects of the organizational procurement process. <i>International Journal of Research in Marketing</i> , 23 (2), 155-170.	D	

	<b>Article</b>	<b>Focus Research areas</b>	<b>Further Research areas</b>
91	Hutt, M.D., Reingen, P.H., 1987. Social network analysis: Emergent versus prescribed patterns in organizational buying behavior. <i>Advances in Consumer Research</i> , 14 (1), 259-263.	D, G	A, I
92	Jackson Jr., D.W., Keith, J.E., Burdick, R.K., 1984. Purchasing agents' perceptions of industrial buying center influence: A situational approach. <i>Journal of Marketing</i> , 48 (4), 75-83.	B, G	D
93	Järvi, P., Munnukka, J., 2009. The dynamics and characteristics of buying centre networks: A qualitative study on Finnish firms. <i>Marketing Intelligence and Planning</i> , 27 (3), 439-457.	G	A, B, D, H, K
94	Johnson, P.F., Klassen, R.D., Leenders, M.R., Fearon, H.E., 2002. Determinants of purchasing team usage in the supply chain. <i>Journal of Operations Management</i> , 20 (1), 77-89.	B	A, E, H
95	Johnson, P.F., Leenders, M.R., 2001. The supply organizational structure dilemma. <i>Journal of Supply Chain Management</i> , 37 (3), 4-11.	A	B, E, F, H
96	Johnson, P.F., Leenders, M.R., 2003. Gaining and losing pieces of the supply chain. <i>Journal of Supply Chain Management</i> , 39 (1), 27-39.	E	A, B, F, H
97	Johnson, P.F., Leenders, M.R., 2004. Implementing organizational change in supply towards decentralization. <i>Journal of Purchasing and Supply Management</i> , 10 (4/5), 191-200.	A	H, K
98	Johnson, P.F., Leenders, M.R., 2006. A longitudinal study of supply organizational change. <i>Journal of Purchasing and Supply Management</i> , 12 (6), 332-342.	E	A, B, H, K
99	Johnson, P.F., Leenders, M.R., 2008. Building a corporate supply function. <i>Journal of Supply Chain Management</i> , 44 (3), 39-52.	H	A, B, K
100	Johnson, P.F., Leenders, M.R., 2009. Changes in supply leadership. <i>Journal of Purchasing and Supply Management</i> , 15 (1), 51-62.	H, K	A, B
101	Johnson, P.F., Leenders, M.R., Fearon, H.E., 1998a. Evolving roles and responsibilities of purchasing organizations. <i>Journal of Supply Chain Management</i> , 34 (1), 2-11.	E	A, H, K
102	Johnson, P.F., Leenders, M.R., Fearon, H.E., 1998b. The influence of organizational factors on purchasing activities. <i>Journal of Supply Chain Management</i> , 34 (3), 10-19.	A	B, D, E, F, K
103	Johnson, P.F., Leenders, M.R., Fearon, H.E., 1999. The chief purchasing officer: Previous background and experience. <i>European Journal of Purchasing and Supply Management</i> , 5 (2), 95-101.	H, K	B, F
104	Johnson, P.F., Leenders, M.R., Fearon, H.E., 2006. Supply's growing status and influence: A sixteen-year perspective. <i>Journal of Supply Chain Management</i> , 42 (2), 33-43.	E	A, H, K
105	Johnston, W.J., Bonoma, T.V., 1981. The buying center: Structure and interaction patterns. <i>Journal of Marketing</i> , 45 (3), 143-156.	G	A, D
106	Kamann, D.-J.F., 2007. Organizational design in public procurement: A stakeholder approach. <i>Journal of Purchasing and Supply Management</i> , 13 (2), 127-136.	A	D, F
107	Kennedy, A.M., 1982. Industrial buying behaviour: A review of literature and research needs. <i>Management Decision</i> , 20 (1), 38-51.	G	A, D
108	Klebba, J.M., Dwyer, F.R., 1981. Environmental impact on purchase decision structure. <i>Journal of Purchasing and Materials Management</i> , 17 (1), 30-36.	A	E, H
109	Klein, D., Obel, B., Holm, S.J., 1979. Soliciting and evaluating bids for a complex big ticket item. <i>Industrial Marketing Management</i> , 8 (2), 154-160.	D	E
110	Kocabasoglu, C., Suresh, N.C., 2006. Strategic sourcing: An empirical investigation of the concept and its practices in U.S. manufacturing firms. <i>Journal of Supply Chain Management</i> , 42 (2), 4-16.	F	B, E

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111	Kohli, A., 1989. Determinants of influence in organizational buying: A contingency approach. <i>Journal of Marketing</i> , 53 (3), 50-65.	G	D, H
112	Kumar, A., Ozdamar, L., Ng, C.P., 2005. Procurement performance measurement system in the health care industry. <i>International Journal of Health Care Quality Assurance</i> , 18 (2), 152-166.	C	
113	LaForge, M.C., Stone, L.H., 1989. An analysis of the industrial buying process by means of buying center communications. <i>Journal of Business and Industrial Marketing</i> , 4 (1), 29-36.	G, K	B, D, I
114	Laios, L., Xideas, E., 1994. An empirical investigation of institutional and industrial purchasing structure. <i>European Journal of Marketing</i> , 28 (4), 20-38.	A	D
115	Laios, L.G., Moschuris, S.J., 2001. The influence of enterprise type on the purchasing decision process. <i>International Journal of Operations and Production Management</i> , 21 (3), 351-372.	I	A, D
116	Lakemond, N., van Echtelt, F., Wynstra, F., 2001. A configuration typology for involving purchasing specialists in product development. <i>Journal of Supply Chain Management</i> , 37 (4), 11-20.	B	A, K
117	Large, R.O., 2005. Communication capability and attitudes toward external communication of purchasing managers in Germany. <i>International Journal of Physical Distribution and Logistics Management</i> , 35 (6), 426-444.	H	C
118	Large, R.O., Giménez, C., 2006. Oral communication capabilities of purchasing managers: Measurement and typology. <i>Journal of Supply Chain Management</i> , 42 (2), 17-32.	H	
119	Large, R.O., König, T., 2009. A gap model of purchasing's internal service quality: Concept, case study and internal survey. <i>Journal of Purchasing and Supply Management</i> , 15 (1), 24-32.	B, C	
120	Larson, P.D., Morris, M., 2008. Sex and salary: A survey of purchasing and supply professionals. <i>Journal of Purchasing and Supply Management</i> , 14 (2), 112-124.	H	
121	Lau, A.K.W., 2009. Training needs of purchasing and supply management personnel in Hong Kong. <i>Journal of European Industrial Training</i> , 34 (5), 400-415.	H	
122	Lau, G.T., Razzaque, M.A., Ong, A., 2003. Gatekeeping in organizational purchasing: An empirical investigation. <i>Journal of Business and Industrial Marketing</i> , 18 (1), 82-103.	E, G	A, I
123	Leenders, M.R., Nollet, J., Ellram, L.M., 1994. Adapting purchasing to supply chain management. <i>International Journal of Physical Distribution and Logistics Management</i> , 24 (1), 40-42.	E	B
124	Lewin, J.E., Johnston, W.J., 1996. The effects of organizational restructuring on industrial buying behavior: 1990 and beyond. <i>Journal of Business and Industrial Marketing</i> , 11 (6), 93-111.	A, G	E
125	Lilien, G.L., Wong, M.A., 1984. An exploratory investigation of the structure of the buying center in the metalworking industry. <i>Journal of Marketing Research</i> , 21 (1), 1-11.	G	A, D
126	Lin, B., Chang-tseh, H., 2000. Online procurement: Implementation and managerial implications. <i>Human Systems Management</i> , 19 (2), 105.	L	C
127	Lonsdale, C., Watson, G., 2005. The internal client relationship, demand management and value for money: A conceptual model. <i>Journal of Purchasing and Supply Management</i> , 11 (4), 159-171.	B	
128	Loppacher, J.S., Cagliano, R., Spina, G., 2010. Key factors in global supply headquarters-subsiidiary control systems. <i>Journal of Manufacturing Technology Management</i> , 21 (7), 794-817.	C	A, F, K
129	Marshall, G.W., Baker, J., Finn, D.W., 1998. Exploring internal customer service quality. <i>Journal of Business and Industrial Marketing</i> , 13 (4/5), 381-392.	C	B

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130	Marshall, R., Woon Bong, N., 1994. The advertising agency selection process. <i>International Journal of Advertising</i> , 13 (3), 217-227.	G	D
131	Mason, R., 1984. Conflict of interests in purchase decision making. <i>Journal of General Management</i> , 9 (3), 60-70.	B	A, I
132	Mawson, E., Fearne, A., 1997. Organizational buyer behaviour: A study of UK restaurant chains. <i>British Food Journal</i> , 99 (7), 239-243.	D	A
133	McCampbell, A.S., Slaich, L.L., 1995. Purchasing efficiency and staffing benchmarks: A county government study. <i>International Journal of Purchasing and Materials Management</i> , 31 (1), 29-36.	C	A, D
134	McIvor, R., McHugh, M., 2000. Partnership sourcing: An organization change management perspective. <i>Journal of Supply Chain Management</i> , 36 (3), 12-20.	F	B, H, K
135	McQuiston, D.H., 1989. Novelty, complexity, and importance as causal determinants of industrial buyer behavior. <i>Journal of Marketing</i> , 53 (2), 66-79.	G	D
136	Mendez, E.G., Pearson, J.N., 1994. Purchasing's role in product development: The case for time-based strategies. <i>International Journal of Purchasing and Materials Management</i> , 30 (1), 2-12.	B	A, E
137	Michaels, R.E., Day, R.L., Joachimsthaler, E.A., 1987. Role stress among industrial buyers: An integrative model. <i>Journal of Marketing</i> 51 (2), 28-45.	H	A, B, D, K
138	Michaels, R.E., Kumar, A., Samu, S., 1995. Activity-specific role stress in purchasing. <i>International Journal of Purchasing and Materials Management</i> , 31 (1), 10-19.	H	B
139	Monczka, R.M., Carter, P.L., 1978. Measuring purchasing performance. <i>Management Review</i> , 67 (6), 27.	C	
140	Morris, M.H., Freedom, S.M., 1984. Coalitions in organizational buying. <i>Industrial Marketing Management</i> , 13 (2), 123-132.	G	A, B, H, I
141	Morris, M.H., Paul, G.W., Rahtz, D., 1987. Organizational rewards and coalitions in the industrial buying center. <i>International Journal of Research in Marketing</i> , 4 (2), 131-146.	B, G	K
142	Moses, A., Åhlström, P., 2008. Problems in cross-functional sourcing decision processes. <i>Journal of Purchasing and Supply Management</i> , 14 (2), 87-99.	B, I	D, E, F
143	Murphy, D.J., Heberling, M.E., 1996. A framework for purchasing and integrated product teams. <i>International Journal of Purchasing and Materials Management</i> , 32 (3), 11-19.	B	H
144	Narasimhan, R., Carter, J.R., 1990. Organisation, communication and co-ordination of international sourcing. <i>International Marketing Review</i> , 7 (2), 6-20.	A	C, D, F
145	Nellore, R., Motwani, J., 1999. Procurement commodity structures: Issues, lessons and contributions. <i>European Journal of Purchasing and Supply Management</i> , 5 (3-4), 157-166.	A, H	D, E
146	Nollet, J., Calvi, R., Audet, E., Côté, M., 2008. When excessive cost savings measurement drowns the objectives. <i>Journal of Purchasing and Supply Management</i> , 14 (2), 125-135.	C	E, F
147	Novack, R.A., Simco, S.W., 1991. The industrial procurement process: A supply chain perspective. <i>Journal of Business Logistics</i> , 12 (1), 145-167.	D	B, C
148	Ogden, J.A., Zsidisin, G.A., Hendrick, T.E., 2002. Factors that influence chief purchasing officer compensation. <i>Journal of Supply Chain Management</i> , 38 (3), 30-38.	H	K
149	Osmonbekov, T., Bello, D.C., Gilliland, D.I., 2002. Adoption of electronic commerce tools in business procurement: Enhanced buying center structure and processes. <i>Journal of Business and Industrial Marketing</i> , 17 (2/3), 151-166.	G, L	A, B, H, I

	<b>Article</b>	<b>Focus Research areas</b>	<b>Further Research areas</b>
150	Pagell, M., Das, A., Curkovic, S., Easton, L., 1996. Motivating the purchasing professional. <i>International Journal of Purchasing and Materials Management</i> , 32 (3), 27-34.	H	E
151	Parikh, M.A., Joshi, K., 2005. Purchasing process transformation: Restructuring for small purchases. <i>International Journal of Operations and Production Management</i> , 25 (11), 1042-1061.	D	H
152	Park, J.E., Bunn, M.D., 2003. Organizational memory: A new perspective on the organizational buying process. <i>Journal of Business and Industrial Marketing</i> , 18 (3), 237-257.	D, I, J	G, H
153	Pearson, J.N., Ellram, L.M., Carter, C.R., 1996. Status and recognition of the purchasing function in the electronics industry. <i>International Journal of Purchasing and Materials Management</i> , 32 (2), 30-36.	E, F	B, H, I
154	Perrone, V., Zaheer, A., McEvily, B., 2003. Free to be trusted? Organizational constraints on trust in boundary spanners. <i>Organization Science</i> , 14 (4), 422-439.	A	B, E, K
155	Pooler, V.H., Pooler, D.J., 1981. Purchasing's elusive conceptual home. <i>Journal of Purchasing and Materials Management</i> , 17 (2), 13-18.	A	C, E, F, H
156	Pooley, J., Dunn, S.C., 1994. A longitudinal study of purchasing positions: 1960-1989. <i>Journal of Business Logistics</i> , 15 (1), 193-214.	H	E
157	Qualls, W.J., Puto, C.P., 1989. Organizational climate and decision framing: An integrated approach to analyzing industrial buying decisions. <i>Journal of Marketing Research</i> , 26 (2), 179-192.	I, K	G, H
158	Quayle, M., 2002. Purchasing in small firms. <i>European Journal of Purchasing and Supply Management</i> , 8, 151-159.	D	I
159	Rados, D.L., 1970. Some aspects of small firm purchasing activities. <i>British Journal of Marketing</i> , 4 (1), 9-17.	D, I	
160	Rajagopal, S., Bernard, K.N., 1994. Creating strategic change in procurement orientation: A strategy for improving competitiveness. <i>European Journal of Purchasing and Supply Management</i> , 1 (3), 149-160.	F, H	A, C, K
161	Reese, R.M., Stone, L., H., 1987. Participating in the buying process: A vendor's perspective. <i>Journal of Business and Industrial Marketing</i> , 2 (1), 51-60.	G	D, K
162	Reunis, M.R.B., Santema, S.C., Harink, J.H.A., 2006. Increasing e-ordering adoption: A case study. <i>Journal of Purchasing and Supply Management</i> , 12 (6), 322-331.	L	
163	Reunis, M.R.B., van Raaij, E.M., Santema, S.C., 2004. Actor-to-actor dissemination of electronic procurement (ep) adoption: An exploration of influencing factors. <i>Journal of Purchasing and Supply Management</i> , 10 (4-5), 201-210.	H, L	B
164	Rich, N., Hines, P., 1998. Purchasing structures, roles, processes and strategy: Is it a case of the tail wagging the dog? <i>European Journal of Purchasing and Supply Management</i> , 4 (1), 51-61.	A, F	B, D, E
165	Rich, S.H., 1975. The impact of materials shortages on purchasing organization. <i>Journal of Purchasing and Materials Management</i> , 11 (1), 13-17.	A	E
166	Robey, D., Johnston, W.J., 1977. Lateral influences and vertical authority in organizational buying. <i>Industrial Marketing Management</i> , 6 (6), 451-462.	A, G	D, I
167	Robles, F., 1984. Buying in a matrix organization. <i>Industrial Marketing Management</i> , 13 (3), 201-208.	A, G	D
168	Ronchetto Jr, J.R., Hutt, M.D., Reingen, P.H., 1989. Embedded influence patterns in organizational buying systems. <i>Journal of Marketing</i> , 53 (4), 51-62.	B, G	A
169	Rozemeijer, F.A., van Weele, A., Weggeman, M., 2003. Creating corporate advantage through purchasing: Toward a contingency model. <i>Journal of Supply Chain Management</i> , 39 (1), 4-13.	A, F	C

Article	Focus Research areas	Further Research areas
170 Rozemeijer, F., 2000. How to manage corporate purchasing synergy in a decentralised company? Towards design rules for managing and organising purchasing synergy in decentralised companies. <i>European Journal of Purchasing and Supply Management</i> , 6 (1), 5-12.	C	A, F
171 Sánchez-Rodríguez, C., Hemsworth, D., Martínez-Lorente, Á.R., Clavel, J.G., 2006. An empirical study on the impact of standardization of materials and purchasing procedures on purchasing and business performance. <i>Supply Chain Management. An International Journal</i> , 11 (1), 56-64.	C, D	F
172 Schiele, H., 2010. Early supplier integration: The dual role of purchasing in new product development. <i>R&amp;D Management</i> , 40 (2), 138-153.	A	B, D, E, F
173 Schiele, J.J., 2005. Meaningful involvement of municipal purchasing departments in the procurement of consulting services: Case studies from Ontario, Canada. <i>Journal of Purchasing and Supply Management</i> , 11, 14-27.	D	B
174 Schill, R.L., 1978. Procurement information systems: Design, implementation, and control. <i>International Journal of Physical Distribution and Logistics Management</i> , 9 (2), 89-112.	L	E
175 Schill, R.L., 1980. Buying process in the U.S. Department of defense. <i>Industrial Marketing Management</i> , 9 (4), 291-298.	D	F
176 Schotanus, F., Telgen, J., 2007. Developing a typology of organisational forms of cooperative purchasing. <i>Journal of Purchasing and Supply Management</i> , 13 (1), 53-68.	A	D, F
177 Smeltzer, L.R., 1998. Executive and purchasing leadership in purchasing change initiatives. <i>International Journal of Purchasing and Materials Management</i> , 34 (4), 12-20.	H, K	A, B, E, F
178 Smeltzer, L., Goel, S., 1995. Sources of purchasing managers' influence within the organization. <i>International Journal of Purchasing and Materials Management</i> , 31 (4), 2-11.	H	B
179 Spekman, R.E., Calder, B.J., 1978. Narrowing the conceptual-empirical gap in organizational buying behavior. <i>Advances in Consumer Research</i> , 5 (1), 653-656.	G, I	A
180 Spekman, R.E., Gronhaug, K., 1986. Conceptual and methodological issues in buying centre research. <i>European Journal of Marketing</i> , 20 (7), 50-63.	G	A, D, I
181 Spekman, R.E., Stern, L.W., 1979. Environmental uncertainty and buying group structure: An empirical investigation. <i>Journal of Marketing</i> , 43 (2), 54-64.	G	A
182 Stanley, L.L., 1993. Linking purchasing department structure and performance – toward a contingency model. <i>Journal of Strategic Marketing</i> , 1 (3), 211-219.	A, C	
183 Stanley, L.L., Wisner, J.D., 2002. The determinants of service quality: Issues for purchasing. <i>European Journal of Purchasing and Supply Management</i> , 8 (2), 97-109.	C	B, F
184 Strauss, G., 1962. Tactics of lateral relationship: The purchasing agent. <i>Administrative Science Quarterly</i> , 7 (2), 161-186.	B	H
185 Tanner Jr., J.F., 1998. Users' role in the purchase: Their influence, satisfaction and desire to participate in the next purchase. <i>Journal of Business and Industrial Marketing</i> , 13 (6), 479-491.	G	B, I
186 Tassabehji, R., Moorhouse, A., 2008. The changing role of procurement: Developing professional effectiveness. <i>Journal of Purchasing and Supply Management</i> , 14 (1), 55-68.	H	E
187 Taylor, J.R., Tucker, C.C., 1989. Reducing data processing costs through centralized procurement. <i>MIS Quarterly</i> , 13 (4), 487-499.	A, L	C, H, K
188 Tazelaar, F., Snijders, C., 2004. The myth of purchasing professionals' expertise. More evidence on whether computers can make better procurement decisions. <i>Journal of Purchasing and Supply Management</i> , 10 (4-5), 211-222.	I	H, L

	<b>Article</b>	<b>Focus Research areas</b>	<b>Further Research areas</b>
189	Tirimanne, D.N., Ariyawardana, A., 2008. Use of organizational design features in purchasing: The case of garment manufacturing firms in Sri Lanka. <i>Journal of Management Research</i> , 8 (3), 162-167.	A, C	
190	Toyne, B., 1977. Foreign subsidiary procurement authority: The corporate parent view. <i>Industrial Marketing Management</i> 6 (1), 387-393.	A	
191	Trautmann, G., Turkulainen, V., Hartmann, E., Bals, L., 2009. Integration in the global sourcing organization - an information processing perspective. <i>Journal of Supply Chain Management</i> , 45 (2), 57-74.	A	B, D
192	Trent, R.J., 1996. Understanding and evaluating cross-functional sourcing team leadership. <i>Journal of Supply Chain Management</i> , 32 (4), 29-36.	B, K	
193	Trent, R.J., 2004. The use of organizational design features in purchasing and supply management. <i>Journal of Supply Chain Management</i> , 40 (3), 4-18.	A	B, C, E
194	Trent, R.J., Monczka, R.M., 1994. Effective cross-functional sourcing teams: Critical success factors. <i>International Journal of Purchasing and Materials Management</i> , 30 (4), 3-11.	A, B	C, K
195	van der Valk, W., Rozemeijer, F., 2009. Buying business services: Towards a structured service purchasing process. <i>Journal of Services Marketing</i> , 23 (1), 3-10.	D	
196	Wagner, S.M., Kaufmann, L., 2004. Overcoming the main barriers in initiating and using purchasing-BSCs. <i>Journal of Purchasing and Supply Management</i> , 10 (6), 269-281.	D, F	B, C, H, K
197	Wagner, W.B., 1984. The industrial buying function: Changing role and relevance. <i>Industrial Management and Data Systems</i> , 84 (11/12), 23-28.	A	C, E
198	Webster Jr, F.E., 1965. Modeling the industrial buying process. <i>Journal of Marketing Research (JMR)</i> , 2 (4), 370-376.	D, I	A, E
199	Werr, A., Perner, F., 2007. Purchasing management consulting services – from management autonomy to purchasing involvement. <i>Journal of Purchasing and Supply Management</i> , 13 (2), 98-112.	D	A, B, E, K
200	Whyte, J.L., 1992. Characteristics of transport managers which influence haulier selection. <i>International Journal of Physical Distribution and Logistics Management</i> , 22 (5), 14-24.	H	E
201	Williams, A.J., 1995. Supply managers for the twenty-first century: The learning imperative. <i>International Journal of Purchasing and Materials Management</i> , 31 (3), 39-42.	J	B, H
202	Williams, A.J., Giunipero, L.C., Henthorne, T.L., 1994. The cross-functional imperative: The case of marketing and purchasing. <i>International Journal of Purchasing and Materials Management</i> , 30 (3), 28-33.	B	C, H
203	Wilson, D.T., 1987. Merging adoption process and organizational buying models. <i>Advances in Consumer Research</i> , 14 (1), 323-325.	D	G
204	Wilson, E.J., Woodside, A.G., 1994. A two-step model of influence in group purchasing decisions. <i>International Journal of Physical Distribution and Logistics Management</i> , 24 (5), 34-44.	G	B, H
205	Wood, J.A., 2005. Organizational configuration as an antecedent to buying centers' size and structure. <i>Journal of Business and Industrial Marketing</i> , 20 (6), 263-275.	A, G	F
206	Woodside, A.G., Liukko, T., Vuori, R., 1999. Organizational buying of capital equipment involving persons across several authority levels. <i>Journal of Business and Industrial Marketing</i> , 14 (1), 30-48.	G	D, H
207	Wynstra, F., Axelsson, B., Weele, A.v., 2000. Driving and enabling factors for purchasing involvement in product development. <i>European Journal of Purchasing and Supply Management</i> , 6 (2), 129-141.	B, E	
208	Wynstra, F., van Weele, A., Axelsson, B., 1999. Purchasing involvement in product development: A framework. <i>European Journal of Purchasing and Supply Management</i> , 5 (3-4), 129-141.	B	D, E

	Article	Focus Research areas	Further Research areas
209	Yeh, H., 2008. A knowledge value creation model for knowledge-intensive procurement projects. <i>Journal of Manufacturing Technology Management</i> , 19 (7), 871-892.	D, J	
210	Zheng, J., Knight, L., Harland, C., Humby, S., James, K., 2007. An analysis of research into the future of purchasing and supply management. <i>Journal of Purchasing and Supply Management</i> , 13 (1), 69-83.	E	A, D, F, H, L
211	Zsidisin, G.A., Ellram, L.M., Ogden, J.A., 2003a. The relationship between purchasing and supply management's perceived value and participation in strategic supplier cost management activities. <i>Journal of Business Logistics</i> , 24 (2), 129-154.	E, F	B, K
212	Zsidisin, G.A., Ogden, J.A., Hendrick, T.E., Clark, M.A., 2003b. Chief purchasing officer compensation: An analysis of organizational and human capital effects. <i>International Journal of Physical Distribution and Logistics Management</i> , 33 (6), 477-499.	H, K	



## 7.2 Appendix 2: Composition and Focus Research Areas of the Identified Journal Groups

Included Journals (number of articles published in each journal)	Focus Research Areas (top three or equal)
<i>Purchasing &amp; Supply Management Journals</i>	
Journal of Supply Chain Management, formerly known as ‘Journal of Purchasing’ and ‘Journal of Purchasing & Materials Management’ (51) Journal of Purchasing and Supply Management, formerly known as ‘European Journal of Purchasing & Supply Management’ (47)	Relationship Management (15%) Structure & Formalities (14%) Evolving Responsibilities (14%) HR & Change Management (14%)
<i>SCM &amp; Logistics Journals</i>	
International Journal of Physical Distribution & Logistics Management (7) Journal of Business Logistics (4) Supply Chain Management: An international Journal (4) Journal of Enterprise Information Management, formerly known as ‘Logistics Information Management’ (1) The International Journal of Logistics Management (1)	Relationship Management (16%) Evolving Responsibilities (16%) Strategic Alignment (14%)
<i>Operations Management Journals</i>	
International Journal of Operations & Production Management (9) Journal of Manufacturing Technology Management (2) Production Planning & Control (2) International Journal of Production Economics, formerly known as ‘Engineering Costs and Production Economics’ (1) Journal of Operations Management (1) Production and Operations Management (1)	Strategic Performance & Measurement (20%) Structure & Formalities (14%) Relationship Management (12%)
<i>General Management Journals</i>	
Management Decision, including ‘Journal of Management History’ (3) Journal of Management Development (2) Administrative Science Quarterly (1) British Journal of Management (1) Decision Sciences (1) Journal of General Management (1) Journal of Management Research (1) Management Review (1) Management Science (1) Organization Science (1)	Structure & Formalities (18%) Evolving Responsibilities (14%) Strategic Performance & Measurement (14%)
<i>Marketing Journals</i>	
Journal of Business & Industrial Marketing (13) Industrial Marketing Management (11) Journal of Marketing (9) European Journal of Marketing (7) Advances in Consumer Research (4) Journal of Marketing Research (4) International Journal of Research in Marketing (2) International Journal of Advertising (1) International Marketing Review (1) Journal of Services Marketing (1) Journal of Strategic Marketing (1) Marketing Intelligence & Planning (1)	Buying Centre & Purchasing’s Status (22%) Everyday Processes & Policies (19%) Structure & Formalities (16%)
<i>Miscellaneous Journals</i>	
Human Systems Management (2) Industrial Management & Data Systems (2) Journal of European Industrial Training (2) Benchmarking: An International Journal (1) British Food Journal (1) International Journal of Health Care Quality Assurance (1) International Journal of Information Management (1) Journal of Management Information Systems (1) MIS Quarterly (1) R&D Management (1)	Structure & Formalities (19%) IT & E-Business (14%) Strategic Performance & Measurement (14%)

### 7.3 Appendix 3: Publications per Research Areas According to Time

Research Area	1960-1965	1966-1970	1971-1975	1976-1980	1981-1985	1986-1990	1991-1995	1996-2000	2001-2005	2006-2010	Sum
<b>Structure &amp; Formalities</b>	1	1	3	7	10	7	13	14	19	24	99
<b>Relationship Management</b>	1	-	1	4	4	5	15	23	22	18	93
<b>Strategic Performance &amp; Measurement</b>	-	-	2	4	2	2	13	13	19	15	70
<b>Everyday Processes &amp; Policies</b>	1	2	-	4	6	10	8	14	16	17	78
<b>Evolving Responsibilities</b>	1	1	2	4	4	1	14	22	14	12	75
<b>Strategic Alignment</b>	-	2	-	2	1	1	7	16	19	11	59
<b>Buying Centres &amp; Purchasing's Status</b>	-	-	1	5	8	11	4	8	5	2	44
<b>HR &amp; Change Management</b>	1	-	1	1	5	4	13	18	19	17	79
<b>Decision Making</b>	1	1	-	3	2	5	2	4	8	1	27
<b>Organisational Learning</b>	-	-	-	-	-	-	1	3	2	1	7
<b>Leadership &amp; Culture</b>	-	-	-	-	-	6	4	9	12	12	43
<b>IT &amp; E-Business</b>	-	1	-	1	-	1	-	3	10	7	23

#### 7.4 Appendix 4: Publications per Research Areas According to Journal Groups

Research Area	Purchasing & Supply Mgmt. Journals	SCM & Logistics Journals	Operations Mgmt. Journals	General Mgmt. Journals	Marketing Journals	Miscellaneous Journals
Structure & Formalities	46	3	7	8	27	8
Relationship Management	52	8	6	5	18	4
Strategic Performance & Measurement	35	5	10	6	8	6
Everyday Processes & Policies	28	5	4	4	33	4
Evolving Responsibilities	48	8	4	6	6	3
Strategic Alignment	38	7	3	4	4	3
Buying Centres & Purchasing's Status	1	1	-	3	38	1
HR & Change Management	46	6	5	5	12	5
Decision Making	6	1	3	1	16	-
Organisational Learning	3	1	1	1	1	-
Leadership & Culture	26	2	4	1	8	2
IT & E-Business	11	2	3	-	1	6

## 7.5 Appendix 5: Publications per Research Areas According to Used Research Methodology

Research Area	Theoretical-Conceptual	Qualitative	Quantitative	Mixed-Method
Structure & Formalities	26	37	33	3
Relationship Management	15	35	40	3
Strategic Performance & Measurement	17	24	25	4
Everyday Processes & Policies	16	34	25	3
Evolving Responsibilities	17	33	22	3
Strategic Alignment	15	25	16	3
Buying Centres & Purchasing's Status	14	5	23	2
HR & Change Management	11	33	31	4
Decision Making	7	6	14	-
Organisational Learning	3	3	-	1
Leadership & Culture	2	18	22	1
IT & E-Business	6	12	5	-

## 7.6 Appendix 6: Implications of Identified Trends on Research Areas

This table lists the implications of the identified trends on the research areas. The trends are abbreviated with the numbers 1 to 10 as follows and the highlighted cells (marked with a bold X) indicate where a research areas correspond directly to one of the trends:

### *Corporate Trends*

- 1 Process organisation instead of functional silos increases importance of cross-functional team collaboration
- 2 Global production and local consumer needs result in increased organisational complexity
- 3 Demographic change and skills shortage in workforce result in “war for talents”

### *Supply Chain Trends*

- 4 Multipolar world and increasingly scarce resources
- 5 Increased worldwide competition as well as market dynamics and volatility in sales and supply markets
- 6 Increasing stakeholder scrutiny, consumer awareness, and regulation of corporate sustainability efforts as well as impact of climate change
- 7 Global sourcing on local level
- 8 Alliance management and relevance of supply networks
- 9 Outsourcing and high relevance of suppliers

### *General Trend*

- 10 “Online society” based on information and communication technologies

Research Area	Relevant Trends									
	1	2	3	4	5	6	7	8	9	10
<b>Structure &amp; Formalities</b>	<b>X</b>	<b>X</b>	x	x	x	x	x	x	x	x
<b>Relationship Management</b>	<b>X</b>	x		x	x	x	x	x	x	x
<b>Strategic Performance &amp; Measurement</b>	x	x	x	x	x	x	x	x	x	x
<b>Everyday Processes &amp; Policies</b>	x	x	x	x	x	x	x	x	x	x
<b>Evolving Responsibilities</b>	x	x		x	x	x	x	x	x	
<b>Strategic Alignment</b>	x			x	x	x	x	x	x	
<b>Buying Centres &amp; Purchasing's Status</b>	x	x		x	x	x	x	x	x	
<b>HR &amp; Change Management</b>	x	x	<b>X</b>	x	x	x	x	x	x	x
<b>Decision Making</b>	x	x	x	x	x	x	x	x	x	x
<b>Organisational Learning</b>	x	x	x	x	x	x	x	x	x	x
<b>Leadership &amp; Culture</b>	<b>X</b>	x	<b>X</b>	x	x	x	x	x	x	x
<b>IT &amp; E-Business</b>	x	x	x	x	x	x	x	x	x	<b>X</b>