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Nora Hänninen

Environmental Values in Industrial Marketing Relationships

JYVÄSKYLÄN YLIOPISTO

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ABSTRACT

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Concern for the natural environment has become an issue that virtually all companies have to address. Literature suggests that an environmentally oriented marketing strategy, such as an environmental brand image, yields competitive advantage for the supplier in the form of improved customer outcomes and financial performance. At the same time, key barriers to environmental purchasing are found to be related to higher perceived cost and lack of environmental interest among purchasing professionals. In addition, research has repeatedly revealed a gap between customers' environmental values and attitudes and their manifestation in purchasing behavior.

This dissertation contributes to the interface of environmentally oriented business literature and theory of industrial marketing relationships. The aspects of environmental concern and value-based approach are integrated in a framework that explains the formation of customer-perceived value and loyalty – the key outcomes of marketing efforts in existing relationships. Marketing communication is inserted as the key supplier-initiated process that enables loyalty-oriented development of the relationship.

This study adheres to positivist methodology and employs quantitative methods. Empirical data was collected among customers of three Finnish industrial companies and consists of customers' responses to an online survey (n=121). The research hypotheses were tested with partial least squares modeling (PLS). The results show that environmental values of industrial customers consist of three dimensions: awareness, competitive advantage and corporate stance. It is found that more environmentally motivated customers perceived more overall value in their supplier relationships. Overall value, in turn, is a significant driver of customer loyalty.

Findings of this study therefore support the applicability of a value-based conceptualization of customer motivations in order to understand supplier evaluation and purchasing behavior in industrial marketing relationships. Of managerial interest is the finding that customers considered device-mediated marketing communication such as email and telephone more effective than face-to-face interaction. This provides marketers with opportunities to more frequent yet cost efficient communication that fosters customer loyalty.

Keywords: industrial marketing, buyer-supplier relationship, environmental values, customer value, loyalty, marketing communication, survey method, PLS

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FIGURES

TABLE

CONTENTS

1 INTRODUCTION

1.1 Importance of the topic and research gap

Environmental issues have been on the agenda of business scholars and practitioners alike for decades but paradoxically, the more urgent the preservation of natural resources is becoming, the less research in business sciences seems to focus on environmental topics (Chamorro, Rubio, & Miranda, 2009). Two key issues that have framed and legitimized business operations since the industrial revolution may be used to explain the inferiority of environmental values to economic ones. Firstly, the dominant social paradigm (DSP) — a view of the world that sets humans and societal systems as superior to all other instances — explains why it is accepted for companies to employ natural resources and produce goods for the consumers and economic profits for the owners regardless of the long-term effects on common resources such as clean water and air (Kilbourne, 1998). Secondly, the fundamental objective of a business organization as a monetarily-based domain in the human society is to yield economic profit for the stakeholders (or more specifically, shareholders), whereas other responsibilities towards the society and such environs may be considered secondary (Smith, 2009). So far, natural environment has not been considered as a stakeholder itself at all and, therefore, ecological preservation has not been the core mission of industrial companies (Onkila, 2009). However, a stakeholder orientation that also addressess the socio-environmental aspect of business was recently introduced in the academic discussion of marketing from a morally imperative perspective and competitive interest regarding the global marketplace (Kotler, 2011; Sheth & Sinha, 2015).

Despite the prevailing priority of economic goals over other values in business, the literature suggests that addressing environmental concern may help companies to reach ecological and economic value simultaneously. Environmental improvements have led to e.g., increased sales and profit and enhanced company reputation (Yol Lee & Rhee, 2007) and performance in terms of operational and commercial success (Fraj-Andrés, Martinez-Salinas, &

Matute-Vallejo, 2009; Leonidou, Katsikeas, & Morgan, 2013; Pujari, Wright, & Peattie, 2003). Specifically, green innovations have been found to contribute to greater financial payoffs (Forsman, 2013; Kurapatskie & Darnall, 2013). Research on environmental marketing in the business-to-business (B2B) context has mainly focused on determining the alternate stances of environmental orientation (Banerjee, Iyer, & Kashyap, 2003; Menon & Menon, 1997; Shrivastava, 1995; Stone, Joseph, & Blodgett, 2004). This stream of literature has focused on assessing the permeability of environmental concern throughout organizational functions, and strategies are considered in relation to the antecedents of environmental orientation.

Industries that are considered to have a high impact on the environment cannot be considered pro-environmental due to the nature of their core operations. High-impact industries also have to comply with more regulations; thus, even more effort is required to gain competitive advantage from environmentalism (Banerjee et al., 2003). Also, the general economic situation and financial risk have been found to affect the willingness of companies to emphasize environmental issues (Starik & Heuer, 2002; Yol Lee & Rhee, 2007). Therefore, not many companies operating in heavily competed markets of traditional "smokestack industries" perceive opportunities in environmentally focused strategies. Instead, the environmental orientation of such suppliers is more often a result of external pressures such as public concern and regulatory forces (Banerjee et al., 2003; Stone et al., 2004; Zhu, Sarkis, & Geng, 2005). Even though industrial manufacturing and supply chains do not represent the forefront of environmentalism, they are significant contributors to global economic and ecological development. This merits research that explains how environmental concern is present in the operations of high-impact industrial companies.

Whereas the research streams of environmental marketing and environmental supply chain management have contributed to the knowledge about addressing environmental concern as a strategic choice in the industrial marketplace, less research has been conducted on the consequences of environmental orientation on interfirm relationship outcomes from the customer's point of view (Banerjee et al., 2003; Chamorro et al., 2009). The contemporary marketing paradigm stresses the superiority of a market-oriented strategy that essentially focuses on the creation of superior value to the customers (Hunt & Lambe, 2000; Slater & Narver, 1994). According to the value-based approach, understanding the customer's value expectations is considered the key to a supplier's success in its relationships with customers (Flint, Blocker, & Boutin, 2011). Simultaneously, the general shift in the marketing paradigm from economic to behavioral approaches has resulted in the dominance of a relational paradigm that emphasizes the value of the business relationship rather than the value of discrete transactions (Hadjikhani & LaPlaca, 2013). Resulting from these theoretical standpoints, the concepts of customer value and customer retention have emerged as pivotal marketing concepts that explain the company's overall competitive and financial performance (Hunt & Lambe, 2000).

Relationship marketing research has focused on the buyer-supplier dyad that is considered to be the key domain of value creation (Gummesson, 2002; Helfert, Ritter, & Walter, 2002). However, relationship marketing research in the industrial setting mainly focuses on the processes, such as management of exchanges from the interactional viewpoint and the developmental approaches that aim at building the longevity and cooperation within a business dyad or network (Dwyer, Schurr, & Oh, 1987; Håkansson & Snehota, 1989; Morgan & Hunt, 1994). Less attention has been devoted to the outcome constructs of customer value and loyalty that, ultimately, define the existence of a business relationship. Also, the relationship paradigm has offered less insights into the drivers of value in those cases where a highly collaborative and structurally integrated partnering relationship is not applicable or even desired (Cannon & Perreault, 1999). Therefore, whereas the relationship paradigm serves as the ideological umbrella for research in the industrial marketing context, this study contributes to the research on industrial buyer-supplier relationships by focusing on relationship outcomes instead of processes. The value-based approach is employed to provide the logic that explains how industrial customers evaluate their suppliers and how such assessments are reflected in the customers' future intentions, respectively.

The challenge of studying values in business relationships is that the word "value" can refer to two different phenomena: value born of business objectives and values born of moral objectives (Hall, 1989). The first one considers value as a tradeoff of benefits and sacrifices, whereas the latter refers to the ethical aspects of a company as a decision-making entity. The critical premise in value-based marketing is that customers do not value similar things but, instead, value is created in various ways for different customers (Zeithaml, 1988). Customers' value assessments vary depending on situation, time, offering type, competition and customer characteristics (Ledden, Kalafatis, & Samouel, 2007). The effect of human or personal values on perceived value is pointed out in the literature but less empirically researched (Allen & Ng, 1999; Ravald & Grönroos, 1996). The hierarchical order of different values and value prioritization may explain how customers choose suppliers over others and guide the formulation of appropriate strategies (Woodruff, 1997).

A lot of studies have focused on the ethical aspect of environmental values, often by assessing drivers that influence the enviro-ethical decision-making process of managers. Company decisions involving any environmentally related consideration are often treated as a dilemma posed at individual managers (Flannery & May, 2000; Fryxell & Lo, 2003), or seen as belonging to the realm of corporate social responsibility (Maignan & Ferrell, 2004; Onkila, 2009). There is also some empirical evidence from consumer context that environmental values influence perceived overall value and purchasing intentions (Barbarossa & De Pelsmacker, 2016; Ledden et al., 2007), as well as that environmentally oriented consumer behavior is related to the wider set of consumption values (Gonçalves, Lourenço, & Silva, 2016) Nonetheless, few studies in the B2B research combine environmental value and business value so that their interplay is explanatory of overall business outcomes (Lindfelt & Törnroos, 2006). Knowledge about the effect of values on perceived value is especially relevant to suppliers who are willing to address stakeholder demands by promoting environmental improvements in their technologies. Such offerings yield ecological and economic benefits in the form of resource-saving technologies but may come at a higher acquisition cost for the customer. Higher quality and higher price offerings have proven as particularly challenging for marketers to promote, so substantiating the value proposition is critical in order to convince the customer about the superior overall value (Anderson, Thomson, & Wynstra, 2000).

Whereas studies on customer-perceived value in the industrial context systematically point out that suppliers are responsible for communicating the proposed value to the customer, fewer studies have examined marketing communication as the key element of such attempts (Terho, Eggert, Ulaga, Haas, & Böhm, 2017; Töytäri, Brashear Alejandro, Parvinen, Ollila, & Rosendahl, 2011). To this end, this study also considers the role of marketing communication as a central act of relationship persuasion contributing to customers' loyalty intentions (Andersen, 2001).

Figure 1 illustrates the elements and theoretical viewpoints of the study. Customer-supplier relationships in industrial markets are studied within the frame of the relationship marketing paradigm in which the main objective is to build long-term and mutually profitable business relationships (Möller, 2013). The value-based approach is employed to provide understanding about the customer's assessment regarding the relationship and future supplier decisions (Woodruff, 1997). As relationship outcomes of value and loaylty are critically dependent of customers' perceptions, the phenomenon is studied from the customer perspective. The connections between these concepts and their contents are further elaborated as the theoretical framework of this study is built in Chapter 2.

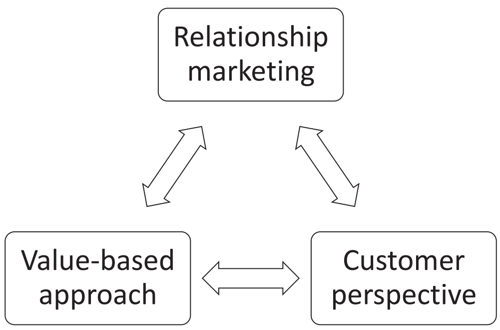

FIGURE 1 Key elements of the study.

1.2 Objectives and problem setting

Two theoretically relevant, largely unanswered questions may be drawn from the literature: 1) Are the seemingly conflicting environmental and business values compatible in industrial marketing relationships, and 2) How are customer outcomes enhanced in existing relationships? This study focuses on the role of environmental values in creating customer value and loyalty within industrial buyer-supplier relationships. The aim is to contribute to the yet scant value-based approach in the field of environmentally oriented business research (Closs, Speier, & Meacham, 2011) and, at the same time, provide relationship marketing literature with understanding about the effect of environmental values on relational outcomes that predict continuity of a mutually profitable business relationship. The research problem is formulated accordingly:

What is the effect of customer's environmental values on customer-focused business relationship outcomes?

The research problem is approached by focusing on its different aspects by answering the following research questions:

1) What is the structure of environmental values among industrial companies?
2) How do customer's environmental values affect customer-perceived value?
3) How does customer-perceived value contribute to customer loyalty?
4) How does marketing communication contribute to customer loyalty?

This dissertation is based on four original research articles and manuscripts that individually focus on the research questions and as a whole, provide an answer to the research problem (Table 1). The author of this dissertation is the first author of all original research articles.

TABLE 1 Original publications

Title	Authors	Publication outlet	Research questions and related concepts
The effect of green values on loyalty: developing a conceptual framework	Mustonen, N., & Karjaluoto, H.	Academy of Marketing Science Annual Conference, Baltimore, MD, USA (2009)	Questions 1-4: Conceptual overview
Customer environmental values and their contribution to loyalty in industrial markets	Mustonen, N., Karjaluoto, H., & Jayawardhena, C.	Business Strategy and the Environment (2016)	Questions 2 and 3: Environmental values, customer-perceived value, loyalty
Environmental values and customer-perceived value in industrial supplier relationships	Hänninen, N., & Karjaluoto, H.	Journal of Cleaner Production (2017)	Questions 1 and 2: Environmental values, customer-perceived value
The effect of marketing communication on business relationship loyalty	Hänninen, N., & Karjaluoto, H.	Marketing Intelligence and Planning (2017)	Questions 3 and 4: Customer-perceived value, marketing communication, loyalty

1.3 Research methodology and structure

This study can be characterized as applied research that typically seeks to gain information about reality with a predictive aim (Niiniluoto, 2002). In the following, the research methodology is only briefly referred as it receives a more thorough discussion in Chapter 3 of this dissertation. This chapter therefore focuses on detailing the initial motivation and practical proceeding of this dissertation as originating from a broader academic research project as well as an independent scientific study.

1.3.1 Methodology

This research project connects to the positivist paradigm in its ontological and epistemological assumptions that reality is external to individual observers and that causal-type generalizations about the reality may be uncovered in objective methods (Guba, 1990). Resulting from such predispositions, a hypothetico-deductive logic is adopted as the guideline for the research process (A. S. Lee, 1991). The empirical data is quantitative and conclusions are based on statistical inference. However, this study departs from orthodox positivism in its acceptance of contextual influences that relate to the research phenomenon's essence in the social realm of human action (Easton, 2002). Also, involvement of humans as recognizers and mediators of reality is emphasized (Fleetwood, 2005), resulting in a critical realist approach.

1.3.2 Research process and materials

This dissertation was initiated within an academic research project that took place during 2008-2010. The project was funded by the Finnish Agency for Technology and Innovation (TEKES) and conjointly operated in three Finnish Universities: University of Jyväskylä's School of Business and Economics in which the department of marketing was responsible for the project, Aalto University and University of Oulu. Business partners included six Finnish industrial firms who were manufacturers of industrial equipment. The author of this dissertation worked as a project manager for the project and was involved in all of the project's events and phases such as start-up meetings with the company representatives, marketing workshops that were held in companies, planning of data gathering, data analyses and reporting of results for the business representatives. The author of this dissertation also benefited from the work of research assistants who prepared their masters' theses for the project. Working for the project offered insights into the research phenomenon in forms that are not directly reported within this dissertation, such as access to qualitative data from workshops and managerial interviews. This additional understanding of the context allowed the author to orientate herself more efficiently to previous theoretical and empirical evidence in terms of e.g., differences and similarities in research contexts and perceived managerial challenges that are related to the topic both as reported in previous literature and as emerging in the data of this dissertation.

The empirical data of this dissertation is based on an online survey that was conducted among industrial companies in the autumn of 2009. The supervisor of this dissertation was responsible for creating and managing the electronic survey and executing data treatment procedures that were required before statistical analyses were conducted (such as analysis of missing data and assessing non-response bias). The author of this dissertation conducted exploratory factor analyses, confirmatory factor analyses and structural equation modeling under the guidance of the supervisor. She also conducted analyses that are not presented in the published articles but gave insights into the descriptive aspect of data, such as group comparisons between industries.

Generally, a research process adopting a positivist methodology adheres to a linear and temporal logic. Since the initiation of this dissertation project in 2008, the original research articles were advanced as substudies both sequentially and simultaneously after the data collection in the autumn of 2009. This is due to the practicalities of publishing research articles in forums that employ a double-blind reviewing process. Some manuscripts went through several revisions and were eventually published later than others that were initiated later in the course of the dissertation process. Also, as the research project proceeded, the reviewers of each article manuscript offered valuable insights into the topic and its theoretical and empirical presentation, leading the researcher to familiarize herself with yet new streams of literature that shed more light on the different aspects of the research phenomenon. Therefore, not only did the original hypotheses guide empirical analysis but also the empirical analysis and revision processes guided the theory formulation towards new streams of literature that in turn provided a basis for the preparation of subsequent parts of the research project.

Next, each of the four research articles is presented in terms of focus and contribution to the research questions. As all of the articles are co-authored, the role of the author of this dissertation is explicated in relation to each of the manuscripts.

Article I:

Gives introductory theoretical answers to the research questions 1-4 based on previous literature. Presents the original theoretical framework that served as a starting point for the research project. Reviews the key constructs and suggests their causal connections based on previous research.

The co-author (the supervisor of this dissertation) was responsible for introducing the initial research model with key references to previous literature, whereas the author of this dissertation was involved in rooting the conceptual framework and research hypotheses in the previous literature by reviewing the literature in more detail and writing the manuscript. The co-author gave feedback to drafts of the manuscript. The author of this dissertation was responsible for presenting and discussing the manuscript in the conference. The survey instrument was developed jointly with representatives of the industrial supplier companies who gave managerial insight and suggested modifications based on the characteristics of the particular industries. After presenting the research framework and survey instrument to the academic audience in the form of a conference presentation, data gathering took place and analyses were conducted before proceeding to write article manuscripts II-IV.

The conceptual framework presented in Article I served as a guideline to the dissertation research process as a whole. Its components are empirically examined in remaining research articles II-IV. At this point in the research process, the literature review commenced from the research stream of environmental marketing that offered the most comprehensive operationalizations of environmental concern in the business context. At the same time, the current study's interest lay in the customer experience, as the viewpoint of environmental marketing is arguably somewhat asymmetric to the empirical phenomenon. However, a shift in the focus can be perceived in article III that employs literature within the field of environmental purchase and supply.

In hindsight, the alternation of the marketing and purchasing perspectives within articles I–IV reflects the author's quest for the most appropriate "theoretical home" for the research topic during the dissertation process. This search, and, literally, re-search reflect two issues that characterize the theory and practice of industrial marketing in general. First, it is not uncommon to employ the marketer's perspective of customer-focused phenomena, such as using self-evaluations of marketing strategy success. Second, industrial marketing inevitably switches between the viewpoints of the customer and the marketer as the roles exist simultaneously in the wider supply chain and may also influence each other. In the Introduction chapter of this dissertation, these two streams are compared, providing a more integrated understanding of environmental concern as a motivation for marketing and purchasing alike.

Article II:

Answers research questions 2 and 3 by empirically testing the effects of environmental values and value on loyalty. The aim is to explain how customer loyalty is formed as a result of the interplay of values and value. The key emphasis is on the connections between constructs.

In order to reduce model complexity, higher-order constructs are employed whereas the contents of each construct (environmental values in particular) are less discussed. Based on exploratory and confirmatory data analyses, the concept of supplier's environmental image was inserted in the model in order to better explain the formation of customer-perceived value and the effect of environmental values on loyalty. Article II also addresses the key assumptions about the benefits of a long-term orientation within the relationship paradigm by investigating the effect of relationship age on loyalty. The temporal and qualitative evolution of a business relationship should not be assumed to be equal.

The manuscript of this article required most revision and rewriting efforts after its key contents were presented in a conference in the spring of 2010. It was accepted for publication in 2015 after a few submission and revision rounds during 2010-2015. The author of this dissertation was responsible for the theoretical part including the literature review, justification of research model and discussion. The second author conducted the structural equation modeling and was mainly responsible for writing the results section. The third author contributed to this article by conducting the moderation analyses. He also gave valuable insights regarding the theoretical framework and contributed with improvements to the body of the text throughout the preparation of the manuscript.

Article III:

Answers research questions 1 and 2 by empirical means. Presents the empirical examination of environmental values and focuses on the role of company's environmental image in the formation of customer-perceived value.

In comparison to article II that emphasizes causal connections between higher-order constructs, this article deepens the scrutiny of environmental values. Based on an exploratory factor analysis, some modifications to the construct of environmental values were made. The literature review in article III reflects the shift of focus from marketing to purchasing and draws from the field of supplying. During the later phases of the dissertation process in which article III was revised for the journal, literature on environmental marketing as representative of the supplier's perspective seemed to have less relevance, whereas more theoretical knowledge was required to understand the formation of environmental values in the context of purchasing. Even though the article is positioned to contribute to the supply channel management literature, the multi-tiered nature of industrial supply channels implies that the results are relevant also from the marketing point of view.

The manuscript is written by the author of this dissertation. The author of this dissertation conducted exploratory and confirmatory factor analyses and structural equation modeling. The co-author gave feedback to the text, prepared the figures, conducted control tests of data and offered guidance to the statistical analyses.

Article IV:

Answers research questions 3 and 4 by focusing on the role of marketing communication as an important mediator of relationship outcomes. In this article, separate mediation models are tested and compared in order to contribute to the knowledge on customer's evaluation of the quality and effectiveness of marketing communication in business relationships. The article addressess particularly the scant research in industrial marketing communication as separate from relationship communication as interaction that builds the relationship structures and climate in general.

This article does not consider environmental values as a separate construct whereas other three articles take into account their distinct effect. Instead, the environmental aspect is built into the operationalization of customer-perceived value and communication quality, integrating environmental concern in the overall evaluation.

The author of this dissertation was responsible for reviewing the literature and writing the manuscript drafts in which the co-author provided insights especially regarding the aspect of digital marketing. The mediation analyses and reporting of results (including figures and tables) were conducted and produced in cooperation.

1.4 Key concepts

Industrial marketing relationship

This study focuses on customer-supplier relationships in the industrial manufacturing context. Industrial business relationships are generally considered to be highly relationship-oriented, personal, interactional and mutual (Andersen, 2001; Coviello & Brodie, 2001). These characteristics typically imply that a relationship marketing orientation is applicable (Berry, 1995).

In this study, the empirical context is industrial manufacturing that can be regarded as a subgroup of business-to-business (B2B) relationships. The suppliers are manufacturers of industrial equipment and are situated at the back end of the supply and value chain. Investment cycles of such complex industrial products may be decades long. The industries are mature, resource-intensive industries in which competition is high and the supplier's products are critical to the success of the customer's operations. These businesses may represent a specific case of relationship cultivation compared to other kinds of partnerships such as services or constant supplying to a focal firm in the front end of the value chain.

In this study, the terms "buyer" and "customer" are used interchangeably in reference to the relationship party that has purchased manufacturing equipment from the manufacturer company that is referred to as the "supplier" or "marketer". In some parts of the text, the term "relationship" is replaced with the term "dyad" that is illustrative of the specific buyer-supplier relationship within the wider channel.

Regarding the industrial context, the roles of customers and suppliers coexist as each company is both a buyer and a seller within the wider production chain. As a result, the term "marketing" in its tangible meaning illustrates the common objective of producing industrial goods to be marketed downstream in the channel. In Chapter 2, the definition of marketing is further elaborated in theoretical terms.

Environmental values

Values in business are defined as "the principles, beliefs and standards a company holds to be good, in both a moral and a commercial sense" (Hall, 1989, p. 124). The terms "green", "environmental" and "sustainable" all refer to the attitudes and actions that companies have adopted in consideration of the natural environment. In this study, the term "environmental" is used in particular reference to natural environs, whereas other environments are denoted with their specific domain such as social or competitive environment. Environmental values are assumed to reside with the wider nomological network of values and to range from abstract, more general principles to consumption-related and attribute-based levels in the business organization (Dembkowski & Hanmer-Lloyd, 1994; Vinson, Scott, & Lamont, 1977).

Customer-perceived value

For the purpose of conceptualizing the customer's experience about a particular supplier's offering, this study employs the concept of customer-perceived value or, in short, perceived value. Perceived value was introduced in the field of consumer behavior by Zeithaml (1988) and has been elaborated and broadened across several contexts of research in marketing. Ulaga and Chacour (2001, p. 530) define "customer-perceived value in industrial markets as the trade-off between the multiple benefits and sacrifices of a supplier's offering, as perceived by key decision makers in the customer's organization, and taking into consideration the available alternative suppliers' offerings in a specific-use situation". The definition implies that perceived value has various elements on the benefit and sacrifice sides, and that value is relative. As a consequence, the customer's further purchasing decisions can be understood in a competitive market. This study follows a commonly employed conceptualization of customer-perceived value in B2B markets as comprising price- and quality-related drivers (Lapierre, Filiatrault, & Chebat, 1999; Ulaga & Chacour, 2001). The supplier's environmental image is inserted in the construct to signify the social benefits that are based on supplier-related (positive) associations about capability in the customer's mind (Sheth, Newman, & Gross, 1991).

Customer loyalty

Whereas maximizing value is the main motivation of a customer, the main outcome of marketing for the supplier is a customer's loyalty (Sirdeshmukh, Singh, & Sabol, 2002). Loyalty is a multifaceted concept that consists of attitudinal and behavioral elements and manifests as positive referrals, repurchasing actions and the customer's intention to continue the relationship (Bell, Auh, & Smalley, 2005; Scheer, Miao, & Garrett, 2010). In accordance with the contemporary mainstream of relationship-oriented marketing, customer loyalty is considered of utmost importance due to its contribution to overall business outcomes and performance.

Marketing communication

Traditionally, communication in business relationships has been considered as essentially bidirectional, informal and personal, covering all information exchange that takes place collaboratively between business partners (Mohr, Fisher, & Nevin, 1996). This wide conceptualization of communication serves the purposes of understanding relationship governance and dynamics but does not articulate the critical role of the supplier in fostering customer loyalty in a competitive market. In this study, communication is understood accordingly as supplier-initiated communication that may contain various types of messages formulated from various supplier's tactics and strategic motivations but that, ultimately, has the aim of persuasion to loyalty-related customer behavior (Andersen, 2001).

1.5 Outline of the dissertation

This dissertation is a compilation thesis consisting of two parts: Part I that introduces the topic and research process, provides a theoretical understanding about the research phenomenon and answers the research questions based on the research work that is reported in Part II. Part II consists of reprints of the original research articles that focus on different aspects of the research phenomenon. Part I proceeds as follows. In Chapter 2, the research topic is reviewed in the existing literature in order to provide a theoretical understanding of the studied phenomenon. The literature review is divided into sub-areas of 1) the value-based approach to marketing and the customer outcomes of industrial relationships, and, 2) environmental values as a specific realm of organizational values that carry both opportunities and challenges for marketing and purchasing. The methodology of the study is presented in Chapter 3. Results of each original research article are presented in Chapter 4. In Chapter 5, the key findings of the research articles are discussed and merged into contributions to the theory and managerial practice of industrial marketing. Part I of this dissertation concludes with an evaluation of the study and suggestions for future research.

2 VALUES AND VALUE IN BUSINESS MARKETING

The following review of literature focuses on rooting the central concepts of this study into the wider context of marketing theory and its development. In contemporary research of business marketing, customer value and loyalty are considered of critical importance regarding marketing success within both the value-based as well as the relationship paradigms, yielding favorable outcomes for customers and suppliers alike. In the following, it is showed that the value-based approach and relationship orientation offer a theoretical framework in which the key constructs of this study may be meaningfully set. Further on, the inclusion of environmental values in the value-loyalty framework is explained as the effect of customer values on perceived value is demonstrated.

2.1 Value-based approach to industrial marketing relationships

In today's business-to-business marketing, the concepts of relationship orientation, customer focus and value creation seem self-evident and their importance is equally recognized both in the fields of academic research as well as management practice. This has not always been the case. Since the industrial revolution, the practice and thought of marketing went through a significant evolution from the function of practically bringing a product to the market into an ”activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large” (American Marketing Association, 2013). According to the definition, the key outcome of marketing is “value” as perceived by the various stakeholder groups related to the company. Having postulated the key role of value, the AMA's definition does not comment on how the marketer's value-related efforts among customers are transformed into its own commercial success. The previous definition serves better in this sense by stating that ”Marketing is an organizational function and a set of processes for creating, communicating, and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders" (American Marketing Association, 2013). This definition explicates that, along value creation, customer relationships are used as a means for gaining benefits from business operations. The coincident emergence of the value-based approach and the relationship orientation reflects the change from economic to behavioral approaches in marketing and purchasing research (Hadjikhani & LaPlaca, 2013; Sheth & Sharma, 1997).

In business-to-business settings, relationship approach reflected the shift from "competition and conflict to mutual cooperation and a choice independence to mutual interdependence" (Sheth & Parvatiyar, 1995, p. 399). Relationship paradigm assumes that as the relationship develops and matures the degree of coordination and cooperation increases and pays back in the form of more efficient exchanges and decreased costs that are both monetary and psychological (see e.g. Morgan & Hunt, 1994; Wilson, 1995). Typically, high complexity of the purchase and required customer involvement are characteristics that imply benefits to be gained from a relational exchange process (Möller, 2013). Simultaneously, the value-based approach has developed into a core paradigm of its own that dominates contemporary marketing literature across contexts from services marketing to B2B relationships (Flint et al., 2011; Sharma, Krishnan, & Grewal, 2001; Ulaga & Chacour, 2001).

The value-based approach offers three perspectives on the topic: value for the customer, value for the supplier and value in the buyer–supplier interaction (Ulaga, 2001). This study is concerned with the customer's viewpoint, conceptualizing value as something the customer perceives in the supplier's offering having compared the desired need and the required sacrifice with the attributes and consequences gained (Woodruff, 1997). The relationship orientation provides the business relationship parties with an opportunity for fewer costs, more benefits and thus, more value. According to the relationship paradigm, the existing relationship offers fulfillment of the customer's needs that, in turn, encourages them to engage in exchanges with the marketer. For the marketer, these loyal customers contribute to the economics of customer retention and competitive advantage (Sheth & Parvatiyar, 1995).

The relationship-focused research has mainly inquired about the social and structural aspects of relationships, such as in which circumstances buyer-supplier relationships evolve to partnerships (Dwyer et al., 1987; Håkansson & Snehota, 1989), what are the key relational constructs and their connections (Morgan & Hunt, 1994) and how to manage power-dependence dynamics in distribution channels (Heide, 1994). Some scholars state that a rewarding business relationship endures as the social value sufficiently builds overall value and loyalty itself (Morgan & Hunt, 1994), whereas others more explicitly take into account the inevitable imbalance of dependence and propose that relationship management might also require building barriers of exit (Dwyer et al., 1987). Network theory, the most interactional view on relationship marketing in the industrial context, locates value creation in the process of inter-organizational resource sharing and positioning. The network paradigm perceives relationship parties as partners in a value-creating network where relationships are the firm's most valuable resource (Håkansson & Snehota, 1989).

The streams of value-based approach and relationship orientation are also connected so that relationship marketing literature often employs the term "value creation" when describing the desired outcome of successful relationship management and refers to the benefits of such orientation (Wilson, 1995). Similarly, within the interaction/network approach, value and related drivers such as cost and benefit are mentioned but less often the value construct is further elaborated (Ford & Håkansson, 2006). The interactional approach to relationships has also influenced understanding of business value particularly in the research stream of value co-creation. The co-productive view on value creation is concerned with the customer's involvement in the value process and differs from the traditional, industrial view of how value is defined, where it is created, delivered, consumed and assessed (Ranjan & Read, 2016). The co-creation approach is typically presented as an alternative to the traditional value-based approach in the industrial context, to some extent suggesting that the transactional view is becoming redundant in its obsolescence regarding contemporary business practice and theory. Some proponents of the co-creation approach have argued that some aspects of value do not even accommodate monetary assessment and measurement attempts (Ramírez, 1999). At the same time, some scholars conclude that in business-to-business marketing, the lack of value quantification is among the key gaps found between academic theory building in relation to the managerial relevance of such theories (Mora Cortez & Johnston, 2017).

Altogether, the weakness of relational paradigm is that it largely ignores the importance of utilitarian value drawn from transactions (Jüttner & Wehrli, 1994), price as the key sacrifice component of value in business exchanges (Anderson et al., 2000), as well as the effect of a value-based strategy on the supplier's financial performance while delivering the value promise (Mizik & Jacobson, 2003). Despite the emergence of relational and co-creation paradigms as providing understanding beyond utilitarian relationship motives in product-focused marketing, empirical evidence suggests that transactional marketing is still rather common among business marketers (Coviello & Brodie, 2001). Dyadic processes of industrial purchasing and selling include transactional and co-operative elements (Töytäri et al., 2011), and suppliers should take the key responsibility in formulating the value proposition and demonstrating the superiority of their offering in quantifiable, monetary terms (Terho et al., 2017).

Grönroos (1994) is among the few whose definition of relationship marketing explicitly links the aim of relationship marketing to profit-making as the ultimate business outcome. Analogously, Jüttner and Wehrli (1994) are among the few who propose an explicit, theoretical framework that specifies the value creation in the relationship context. They link exchange processes and transactions to different kinds of consumption values so that both transactional and relational value are integrated. Of specific usefulness is the concept of mixed values that involve both the product-related transaction that creates the relationship and provides mainly utilitarian value as well as the symbolic value domain that relates to the exchange process. By allowing the transactional and relational approaches to co-exist, the debate over appropriate conceptualization of value is solved by understanding that the process and outcome perspectives on value represent not exclusive but complementary viewpoints on the topic (Gummerus, 2013).

Similarly, this study acknowledges the importance of a relationship orientation for its greater value-adding potential, but at the same time, the development and future of a buyer-supplier relationship are not considered from the viewpoint of structures, climate and social exchange. Instead, without making assumptions regarding the degree of the relationship orientation, the outcome measure of customer-perceived value is examined in the context of long-term industrial relationships. In theoretical terms, this research approach may be located in the realm of market-based relationship marketing (Möller, 2013). The value-based approach helps explain the relationship outcomes and competitive success through the customer experience, offering a theoretically plausible connection from the level of marketing to overall business success in a competitive market (Hunt, 2013).

This study adopts perceived value and loyalty as the key concepts regarding customer's experience with supplier relationship. Perceived value is formed as a combination of the customer's expectations and experiences (Anderson et al., 2000), and loyalty represents the current and future development of the relationship in the customer's mind (Sirdeshmukh et al., 2002). In the following sections, the concepts of perceived value and loyalty are reviewed in the extant research literature in order to provide a theoretical understanding about these phenomena and their connections in the B2B relationship setting.

2.1.1 Perceived value as the key customer outcome

Following the categorization by Gummerus (2013) of research on value as either as a process versus outcome, this study focuses on the outcome determination from the customer's point of view. For such purpose, the concept of customer-perceived value provides with most theoretically and empirically elaborated means of further inquiry. Value is defined as customer's assessment of "what they want and believe that they get from buying and using a seller's product" (Woodruff, 1997, p. 140). Unlike in the co-creation approach, this definition does not differentiate between transactional and functional value but allows both aspects to be included in the customer's assessment.

The concept of perceived value originates especially from the work of Zeithaml (1988) and has since developed into a key construct of customer experience in consumer and business markets alike (Liu, Leach, & Bernhardt, 2005; Sirdeshmukh et al., 2002). The definitions of value are manifold, but the construct of customer-perceived value is commonly agreed to represent the overall outcome assessment by the customer about the supplier's offering when the benefit and sacrifice components of a product or such offering are evaluated in comparison to competitive offerings. Zeithaml (1988) initially focused on the interplay of price and quality, where perceived value was the function of price and quality. Business research has produced a wide array of conceptualizations of customer-perceived value. In particular, researchers have extracted various benefit domains in order to better understand customer preferences, of which economic, social, emotional and functional are the most popular (Ulaga & Chacour, 2001). Some researchers follow Zeithaml's original concept and consider perceived value a function of perceived quality in relation to the purchasing price (Ciavolino & Dahlgaard, 2007; La, Patterson, & Styles, 2009; Ulaga & Chacour, 2001), whereas in other studies, the benefit and sacrifice domains of perceived value are assessed separately (Ulaga & Eggert, 2006b).

Given the increasingly relationship-oriented view of industrial marketing, the concept of perceived value has been applied to assessments of the whole business relationship in terms of costs and benefits (Hutchinson, Wellington, Saad, & Cox, 2011; Ulaga & Eggert, 2006b). Alongside this, perceived value has been broadened to cover all types of costs and benefits that a business interaction may entail. As Lindgreen and Wynstra (2005) review, the traditional stream of research focused on attributes-based product value, whereas research in the field of services in particular has broadened the concept of perceived value to grasp the whole relationship as the object of value assessment (Bell et al., 2005). The benefit component of a value construct has also been modified to meet the classical conceptualization of a service in an industrial context: the value of the core service, support service and economic value of the supplier (Liu et al., 2005). For instance, Ulaga and Eggert (2006) categorize supplier relationship benefits into core offering, sourcing and operations processes which are also used in the work of (Barry & Terry, 2008) as relationship value antecedents. Spiteri and Dion (2004) list product, strategic and personal benefits as value domains.

The body of research reveals resembling yet diverging conceptualizations of perceived value. As a consequence, the interplay of "get" and "give" components in the value function and their contribution to other relationship outcomes unfold inconsistently from one study to another. Whereas research on values in psychology and social sciences has a long tradition of attempting to empirically validate the most universal structures of human values (Crosby, Bitner, & Gill, 1990; Schwartz & Bilsky, 1987), value in the field of business is not often represented in the wider nomological network of human values that would provide the theoretical basis for operationalization. The context-specific adaptations of customer-perceived value seem unnecessarily numerous when compared to the theory of consumption values that Sheth et al. (1991) introduced as the motivational basis of specific customer choices. The consumption values structure includes functional, conditional, emotional, social and epistemic values and was formulated as universal in order to overcome the differences between consumer and business markets and such contextual discrepancies. Consumption values are claimed to underline customer motivations and to contribute in varying proportions to each choice situation (Sheth et al., 1991).

The theory of consumption values differs from the conceptualization of perceived value in the theory's representativeness of the "get" component of value only, indicating the structure's implicit connection to general human values that do not require any sacrifice (at least monetary) to be uncovered. With the added aspect of cost that essentially characterizes the concept of perceived value, the work of Zeithaml (1988) and Sheth et al. (1991) can together be seen as the underlying theoretical basis for the majority of research on customer value in business. The lack of a conformed theoretical construct of perceived value might be one of the reasons for varying results regarding the relative importance of different value drivers in overall value assessment and, further on, their effect on subsequent relationship experiences such as satisfaction and loyalty. Also, regardless of the seemingly customer-focused emphasis of a value-based approach in marketing, theoretical understanding about value creation-considers mainly the process of marketing planning, whereas the value creation process may unfold rather differently to the customer and, furthermore, differently from one customer to another. In other words, as suggested by Vinson et al. (1977) the underlying and more global value orientations of different customers may result in varying preferences regarding the level of attributes and their evaluation.

Therefore, the most important findings regarding customer-perceived value are the notion that there exist motivational structures of values that precede a customer's value assessment (Ledden et al., 2007), and that specific choices are affected by consumption values that are independent of each other and emphasized varyingly in different situations (Sheth et al., 1991). The scarcity of research on this values-value linkage is rather surprising considering that Zeithaml (1988), among the key developers of the concept, proposed a means-end chain model where value perception hierarchically builds on the customer-perceived product attributes and instrumental and terminal personal values, suggesting a hierarchical approach to human values and their effect on consumer behavior.

Understanding the changes in customers' value preferences is critical to gain and maintain success among customers. Flint and Woodruff (2001) point out this lack of understanding about the underlying customer needs and especially their dynamic nature, but even these critics do not consider perceived value in relation to other values. The connections between values and business value are further elaborated in chapter 2.3. Flint and Woodruff (2001) also criticize the mainstream of value research of a stable and product-attributes conceptualization that does not take into account the challenge created by changes in the marketplace and customer needs. Research on value change concludes that customers find value in the supplier's capabilities of tension release that occurs during the course of time, often regardless of the particular supplier relationship but (Flint & Woodruff, 2001). Such tensions originate from various sources: external customer demands, internal organizational demands, competitor moves and macro-environmental change So, whereas a supplier cannot (and should not attempt to) control the customer's value change since it may result from completely external drivers, a successful supplier may instead contribute to perceived value by expressing the ability to respond to the changing customer needs. Fang, Palmatier, and Evans (2008) also emphasize the supplier's ability to enhance the customer's performance by developing new solutions as a driver of perceived value.

Park, Sarkis, and Wu (2010) posit supplier's image as one dimension of business value, especially in the case of environmentally oriented value creation. The abilities and capabilities may not, however, be as easily operationalized within the rational and functional aspects of value but relate more to the domain of social benefits that are based on supplier-related associations and imagery in the customer's mind (Sheth et al., 1991). In branding literature, image is defined as the "perceptions about a brand as reflected by the brand associations held in consumer memory" (Keller, 1993, p. 3).

More recent studies on branding in the industrial context employ the concept of image as an intangible value-adding benefit. Image is seen as a driver of perceived (brand) value (Ledden et al., 2007; Leek & Christodoulides, 2012), its quality component (Cretu & Brodie, 2007) or both simultaneously (Andreassen & Lindestad, 1998). Image may be used as means when tangible attributes do not offer much opportunities for differentiation (Mudambi, Doyle, & Wong, 1997), which is replicated in the findings that in various industrial sectors, brand recognition alone contributes to market performance in markets where products are highly homogeneous. Michell, King, and Reast (2001) adapted a consumer brand marketing model to the industrial context and suggest that intangible associations contribute to price and quality, the key components of perceived value in this study.

The literature acknowledges a conceptual difference between image and reputation. Image is related to specific aspects such as product class, whereas reputation considers the more general recognition of the company is perceived as a corporate citizen among its various stakeholder groups (Cretu & Brodie, 2007). At the same time, other researchers define image as consisting of "any information linked to the brand in customer memory" (Persson, 2010). This study employs the term image instead of reputation, not as much due to the semantic difference between the concepts but since the term "image" is more often employed in the marketing literature on value creation (Andreassen & Lindestad, 1998; Ledden et al., 2007) and focuses on the environmental aspect of company associations. Thus, following the definition of brand image by Keller (1993), the concept of environmental image in this study consists of environmentally related perceptions about the supplier as reflected by the associations held in the customer memory. At the same time, environmental image is posited among the domains of overall value as representing the social aspect of consumption values (Sheth et al., 1991).

2.1.2 Loyalty as the key supplier outcome

Long-term orientation is definitely a prerequisite for relationship efforts that pay back the supplier in the form of market performance, but historical age of a business relationship *per se* does not guarantee success in terms of competition and financial objectives (Kalwani & Narayandas, 1995). To the supplier, the ultimate aim of relationship marketing (as of any business marketing) is to contribute to the competitive advantage that enables superior performance (Hunt, 2013). Therefore, the mere length of customer relationship does not imply that, first, the relationship-oriented approach is being employed in marketing management or, second, that such relationship would be mutually profitable.

In a market where investment cycles are long, relationship longevity is not a sufficient criterion of marketing success as it only measures the history of the relationship but does not provide any indications of future intentions of the customer. The expectation of relationship continuity, lower propensity to switch and positive referrals to the supplier are considered as relationship outcomes that capture the customer's experience of a valued relationship (Palmatier, Dant, Grewal, & Evans, 2006). Whereas the customer value remained an ambiguous concept, customer loyalty and its proxy concepts of commitment are considered in much more detail already in the earlier business relationship discussion (Morgan & Hunt, 1994). Customer loyalty rewards the relationship-oriented supplier with the customer behavior that yields profits in the form of repurchases and positive word-of-mouth (Bell et al., 2005). The concept of customer loyalty is generally agreed as the key outcome of relationship marketing for the supplier and, by definition, is temporally bound to an established relationship. Therefore, loyalty is the most appropriate outcome construct of a research model that is based on the relationship marketing approach.

The construct of loyalty encompasses attitudinal and behavioral elements. Oliver (1999) presents the most detailed conceptualization of loyalty as consisting of cognitive, affective, conative and action loyalty. Loyalty develops sequentially and the stages are reflected in the customer's positive evaluation of the supplier (cognitive loyalty), positive feelings towards and liking of the supplier (affective), intention to continue the relationship (conative) and actions of repurchases and recommending or spreading positive word-of-mouth about the supplier (action). By definition, full loyalty is present when all these elements occur simultaneously in the customer's experience about the supplier. It is critical to know whether customers conduct mere repurchases without attitudinal commitment as they are more susceptible to competitive offerings (Oliver, 1999). Attitudinal loyalty is especially relevant in its diagnostic ability to distinguish behavioral loyalty from action inertia (Bell et al., 2005) as it indicates the customer's preference towards a supplier (Cretu & Brodie, 2007). Some researchers refer to commitment as signifying the attitudinal element of loyalty that expresses the customer's desire to do business with the supplier (Čater & Čater, 2010; Mohr et al., 1996), whereas others comply with the commitment-trust theory by Morgan and Hunt (1994) by distinguishing commitment as an antecedent of loyalty (Caceres & Paparoidamis, 2007).

It is practically impossible to review loyalty without focusing on the antecedent factors that contribute to its development. Most research in the consumer context models loyalty as building on the positive experiences that are either customer- or product-related factors (Pan, Sheng, & Xie, 2012). More specifically, key drivers of loyalty in empirical research include product quality (Bell et al., 2005), perceived value (Harris & Goode, 2004), satisfaction (Oliver, 1999) and trust (Sirdeshmukh et al., 2002). In the industrial context, more ambivalent relationship phenomena interact with positive experiences so that loyalty builds as a function of positive and negative drivers. The ”negative” drivers erode the attitudinal dimension of loyalty, whereas the behavioral loyalty as action inertia may still be positively influenced. Often, development of a mutually profitable business relationship requires adaptations resulting in dependence in terms of benefits and cost that contribute to attitudinal and behavioral loyalty (Scheer et al., 2010). Negative calculative commitment is found to positively affect behavioral loyalty since it locks the customer in the existing relationship, but at the same time attenuates attitudinal loyalty (Čater & Čater, 2010). The relationship efforts of a supplier may also fail if they are perceived as inefficient by the customer, leading to a deleterious effect on loyalty (Palmatier, Scheer, Evans, & Arnold, 2008).

The mutual effect of satisfaction and value as key antecedents of loyalty remains unresolved in existing literature. Often, satisfaction and value are differentiated based on their psychological origins so that the former represents the customer’s evaluation of the tradeoff concerning sacrifice and benefit, whereas the latter taps the affect-based customer experience of a business exchange and the overall affective experience regarding the relationship as “relationship quality” (Hutchinson et al., 2011). Others claim that satisfaction is a necessary component that mediates the effect of perceived value on loyalty (Lam, Shankar, Erramilli, & Murthy, 2004; Patterson & Spreng, 1997), whereas a more recent meta-analysis reveals that in business markets, the effect of satisfaction on loyalty is actually less important (Pan et al., 2012). Some empirical research in the consumer context concludes that quality and other value-related elements alone determine loyalty (Bell et al., 2005; Harris & Goode, 2004) or that value is a key mediator between other relationship constructs (such as trust) and loyalty (Sirdeshmukh et al., 2002). Selnes (1998) points out that the relationship continuity and relationship enhancement are separate phenomena and concludes that satisfied customers are more willing to continue and deepen their supplier relationship whereas, in the case of decided continuity, trust is irrelevant.

From the value-based approach, satisfaction as an emotionally oriented evaluation of the supplier largely resembles the emotional component of consumption values as they are detailed in the work of Sheth et al. (1991). In the same vein, operationalization of conative loyalty in the work of Harris and Goode (2004) reflects conditional value that grasps the element of comparison that essentially defines the construct of perceived value. It could then be argued that following Oliver's (1999) reasoning, perceived value as a purely utilitarian concept should contribute to the cognitive aspect of loyalty. Analogously, satisfaction that results from the customer's contention regarding a transaction and a supplier contributes to affective loyalty. However, not much empirical research has measured loyalty on such four-dimensional scale and, at the same time, the effect of perceived value and satisfaction on different loyalty domains is not detailed (cf. Harris & Goode, 2004). Also, the sequential model of loyalty research assumes causality between cognitive and affective judgment so that the rational, cognitive evaluation always precedes affective liking. As opposed to Oliver's (1999) assumption, other consumer research suggests that the role of affect is sometimes definitive of cognitive evaluation and decision-making (Shiv & Fedorikhin, 1999) and that affect and cognition have separate influences on attitude (Onur, Brinberg, & Coupey, 2000).

Altogether, the interplay of perceived value, satisfaction and loyalty remains unresolved as long as the aforementioned concepts are defined in a slightly varying manner from one study to another. It is also a matter of context and preference which constructs are employed. To some extent they are merely overlapping and complementing representations of the same cognitive and affective responses that are evoked in the customer when interacting with their supplier. Therefore, the sequential approach to loyalty in more mature relationships may not be as relevant as the dimensional conceptualization that consists of attitudinal and behavioral elements within a single loyalty construct that is also most widely employed in empirical research. In this study, loyalty is conceptualized as both attitudinal and behavioral and it consist of intentions to continue the relationship, repurchasing actions and positive referrals or word-of-mouth (WoM) (Bell et al., 2005; Scheer et al., 2010). In the context of industrial marketing of products with long investment cycles, the recommendation of WoM is considered to be one of the most critical indications of genuine loyalty as it is both attitudinal and behavioral (Lam et al., 2004) but is not bound to actual transactions in the particular relationship (Andreassen & Lindestad, 1998). Recommendation is also a way of creating brand awareness that is found to contribute to market performance (Homburg, Klarmann, & Schmitt, 2010) as well as to build initial impressions among prospects (Kuhn, Alpert, & Pope, 2008). Thus, the benefits of customer loyalty generalize also beyond existing customer relationships.

2.1.3 Marketing communication

Across marketing literature, communication is considered to be the key process that enables all other relationship processes (Cannon & Perreault, 1999). Most importantly, communication is the means of explicating value propositions to the customer. Despite its most research in the industrial context settles with merely mentioning the importance of communicating value without As the relationship paradigm mostly considers social exchange and governance processes between buyers and suppliers, communication is conceptualized as mutual information sharing that mainly contributes to trust and facilitates other relationship processes (Anderson & Narus, 1990; Morgan & Hunt, 1994). Within buyer-supplier channel relationship research, communication of good quality is assumed to be bidirectional (Mohr et al., 1996). A meta-analysis of relationship marketing by Palmatier et al. (2006) corroborates the dominance of this perspective by positioning communication as a dyadic antecedent of relationship mediators such as commitment, trust, satisfaction and quality. As some researchers note, marketing communication has been paralleled to advertising that is not considered as an appropriate means of advancing supplier's objectives in neither the industrial nor consumer markets if a relationship-oriented marketing strategy is being applied (Andersen, 2001; Coviello & Brodie, 2001). Resulting from this, empirical research in the consumer context that focuses on perceived value, trust and loyalty also remains largely silent about the effect of communication on these customer-focused outcomes of relationships (Bell et al., 2005; Harris & Goode, 2004; Sirdeshmukh et al., 2002).

Another theoretical development that partly explains the ostracism of marketing communication as supplier-initiated communication that has the aim of persuasion (definition adapted from Andersen, 2001) is the emergence of integrated marketing communications (IMC) that emphasizes the outside-in approach to customer communication, i.e., listening to customers instead of attempting to push in marketer-initiated messages (Peltier, Schibrowsky, Schultz, & Zahay, 2006). The need for more consistent and integrated marketing communications has been recognized in the industrial context as well, probably reflecting the downside of personal, unplanned and mutual interactions that are often listed as the key characteristics of industrial marketing communication (Sharma & Mehrotra, 2007). The role of salesforce, in turn, as a marketing communication tool is emphasized in the business-to-business context to the extent that relationship marketing is paralleled to salespeople's marketing activities (Palmatier et al., 2008). It may well be that integration of marketing communication is even more difficult to attain in the relational context where communication is of higher frequency, more bidirectional, indirect and informal (Mohr & Nevin, 1990). Morevover, third-party information such as references and other collegial interaction play an increasingly significant role in contributing to purchasing professionals' decision-making (Aarikka-Stenroos & Makkonen, 2014).

Altogether, it can be considered as a matter of terminological misconceptualization that marketing communication would not be required in industrial relationship-oriented marketing. Even among established relationships, loyalty is vulnerable to competitors' communication and persuasion attempts that hamper attitudinal and behavioral loyalty by performance- and image-related messages (Oliver, 1999). In addition, the customer's known previous selection criteria may not be the only determining factor of future strategic supply. A supplier's active role in the relationship helps to sustain in the case of ”under the radar” challengers who step on the competitive arena (Andersen, Ellegaard, & Kragh, 2016). Regarding the role of communication, it serves as the means of exchange within a relationship regardless of the investment cycle of the relationship.

The literature provides some more detailed explanations to the influential mechanism of marketing communication in fostering customer loyalty. Communication is a means of engaging the customer into interaction with the supplier so that the relationship evolves as a self-reinforcing cycle towards the more holistic phases of loyalty (Sashi, 2012). Research also suggests that communication affects brand attitudes, judgments and decision-making (Keller, 2009). More specifically, customer's favorable assessment of a brand or marketer affects their willingness to receive further information (Gilliland & Johnston, 1997), resulting in increased effectiveness of marketing communication (Keller, 2009). The literature also suggests that communication is not only a facilitator of other processes but also a supplier capability of its own that has a direct impact on loyalty (Scheer et al., 2010).

On one hand, the importance of supplier-initiated marketing communications with transactional objectives seems to have been neglected in industrial marketing but, on the other hand, the key characteristics of industrial purchasing are not quite captured in literature on marketing communications in the consumer context either. Reasons for such a gap may be found in the categorical differences between the characteristics of consumers and industrial markets, for example, a marketing- versus technology-oriented culture, a transactional versus process approach to relationships and the decision-making processes in consumer versus business contexts (Lilien, 2016). Then again, not that significant a difference between business and consumer marketing necessarily exist as marketing researchers often are prone to point out (Coviello & Brodie, 2001). Instead, some industrial relationships are characterized as transactional, and interactivity and bidirectionality have increased in consumer marketing especially due to the rise of digital channels and database marketing. In successful relationships both relational and transactional elements are included and required (Peltier et al., 2006). In this study, the relational aspect is included in the form of marketing communication that, when perceived as of good quality and effective in terms of channels, contributes to loyalty.

2.2 Addressing environmental concern in customer-supplier relationships

In the global marketplace, companies have been increasingly interested in improving their performance by better addressing environmental concern and communicating this ability to the various stakeholder groups. Addressing environmental concern in business is a multidisciplinary and multifunctional issue. The environmental aspect as touching upon the business life was introduced in the 1960s, but only after the movement of green consumerism in the 1970s, growing global concern over pollution and developing regulation in the 1980s and, finally, the strategic approach emerging in the 1990s and 2000s has environmental concern become an integral part of business research and practice of the 21st century (Chamorro et al., 2009; Leonidou & Leonidou, 2011). The development of the topic both in theoretical and managerial terms is also reflected in the shifts of terminology from ”green”-prefixed concepts to more neutral ”environmental” marketing and corporate sustainability. This chapter focuses on environmental concern within the realm of business organizations and their customer and supplier relationships. Environmental efforts of industrial companies take place in the context of supply chain where they have an impact both up- and downstream in the channel. Therefore, the sustainability issue may be viewed from two perspectives: either as a matter of purchasing or as a matter of marketing. Moreover, literature suggests that marketing and purchasing are increasingly integrating into a single demand chain management process that brings these two tasks even closer within the organization (Jüttner, Christopher, & Baker, 2007). In order to illustrate the role of environmental concern in the practice of management, the streams of environmental marketing and purchasing are shortly reviewed and reflected to each other. Then, the structure of environmental values as contributing to overall value is elaborated to base their measurement in relation to the customer outcomes in the buyer-supplier dyad.

2.2.1 Environmental marketing

The concept of environmental marketing refers to the strategic approach that addresses ecological concern while remaining competitive in the market (Miles & Covin, 2000). Environmental marketing was a popular research topic in the 1990s, but since then it has suffered a decrease in both academic and practical interest. Some scholars even claimed that environmental marketing was not a plausible concept due to several misunderstandings about its premises, implementation and limited possibilities regarding enhanced competitiveness (Crane, 2000). Research has explored the drivers of environmental marketing strategies (Polonsky, 1995; Stone et al., 2004) and evaluated these strategies according to their width, breadth and depth in the organizational structure (First & Khetriwal, 2010; Kärnä, Hansen, & Juslin, 2003; Menon & Menon, 1997).

The literature reveals three categories that broadly describe the company’s strategic stance towards environmental issues (other terms referring to the same matter being e.g., eco-orientation or environmentalism). The first one reflects a non-environmentally oriented approach with actions that only aim at meeting the minimum level of environmental concern required. This stance is named coercive (Paulraj, 2009), least cost (Shrivastava, 1995), tactic (Menon & Menon, 1997) or consumption strategy (Kärnä et al., 2003). These terms indicate that the company’s motivations lie in other issues than environmental concern and that environmental concern ranks low on the company’s agenda. The second category represents environmental stances that companies adopt when, in addition to meeting the minimum, they recognize benefits in including environmental concern as a part of their strategy. This approach is called competitive (Paulraj, 2009), differentiation (Shrivastava, 1995), quasi-strategic (Menon & Menon, 1997) or reactive (Kärnä et al., 2003) stance. Environmental concern is perceived as a capability that benefits overall strategic objectives but marketers yet emphasize the role of regulation instead of free-market system in addressing environmental issues (Kärnä et al., 2003) This compliant type of environmental strategy is found most commonly among industrial companies.

The highest level of environmentalism manifests in the pro-environmental stances, which are called comprehensive (Paulraj, 2009), niche (Shrivastava, 1995), strategic (Menon & Menon, 1997) or proactive (Kärnä et al., 2003). This level of environmental strategy requires the company's core values and mission to be formed comprehensively around environmental concern, sometimes even solely based on it in the form of ecopreneurialism (Isaak, 2002).

Some researchers make categorizations based on the permeability of an environmental marketing strategy (Menon & Menon, 1997; Paulraj, 2009; Shrivastava, 1995) and form categories accordingly, whereas other studies take a more normative viewpoint and assess the role of environmental issues also based on the "genuineness" of environmental strategies in marketing (Kärnä, Juslin, Ahonen, & Hansen, 2001). Some studies also divide environmental orientation into internal and external dimensions and explain strategies as the combined outcome of internal and external environmentalism (Banerjee, 2001; Fraj-Andrés et al., 2009).

Corporate environmental marketing strategy results from numerous external and internal stakeholder influences: customers, suppliers, legal system, general public, media, interest groups, owners, employees and management (Polonsky, 1995). The most explanatory antecedents of environmental corporate and marketing strategies are top management commitment, public environmental concern, regulatory forces and potential competitive advantage with the industry type moderating some of the influences (Banerjee et al., 2003; Stone et al., 2004). Implementation of environmental concern into operations also depends on organizational policies and structures in general (Menon & Menon, 1997). Cohesiveness of an organization and connectedness of its departments enable disseminating eco-orientation throughout the whole company, which in turn increases the overall awareness of environment and its preservation (Stone et al., 2004). Besides strategy processes, research has addressed environmental concern in marketing mix (Leonidou et al., 2013) and marketing communications (Carlson, Grove, & Kangun, 1993).

Whereas environmental marketing strategy is the outcome of intra-organizational decision-making from the supplier perspective, its meaning and relevance may only be assessed in the wider value chain. Research on environmental marketing does not often consider the customer's viewpoint, even though marketing strategies essentially exist to serve the customer and, eventually, the customer's experience about the supplier is definitive. Thus, a holistic picture of the role of environmental concern in business relationships requires knowledge about companies as buyers as well. In the following, the focus is shifted to the customer's side of the relationship and a literature review on the role of environmental considerations in supply channel management and purchasing.

2.2.2 Environmental purchasing

Environmental purchasing can be seen as a special case of sustainability practices as it integrates environmental issues in the inter-organizational decision-making and influences the upstream supply channel (Appolloni, Sun, Jia, & Li, 2014). Environmental purchasing is stated to yield the following benefits: lower supply chain costs and new life cycle revenues in the form of resource reduction and reuse, organizational resiliency in the face of changing operational environments and enhancement of the legitimacy of operations (Park et al., 2010). Companies receive incentives to environmental improvements from various directions: intra-organizational, regulatory, customers, competition and society (Appolloni et al., 2014). Customers are considered to be the key drivers of environmental efforts (Laari, Töyli, Solakivi, & Ojala, 2016), and within the customer organization top management has a critical role in adopting and implementing environmental supplying strategy (Blome, Hollos, & Paulraj, 2014).

Analogously to the environmental marketing literature, managers were segmented into ”skeptical”, ”hesitant”, ”seeking” or ”limited”, describing their stance towards sustainable supply channel management (Kirchoff, Omar, & Fugate, 2016). Outcomes of environmental improvements also take place in co-operation with customers, and supplier as a critical resource for the customer can create competitive advantage (Appolloni et al., 2014). The impact of green procurement on supplier performance is fully mediated by green supplier development (Blome et al., 2014). This suggests the highly strategic nature of environmental purchasing. Paulraj (2009) found that those companies who have a competitive motivation for environmental strategy emphasize more sustainability in their supplier evaluation and selection. This indicates that the more customers are committed to sustainability themselves, the more emphasis they put on sustainability in supply chain management as well.

Yet the question remains why, despite the general popularity and urgency of sustainability as a global topic, its strategic attractiveness and implementation among industrial supply chains remains limited (Zhu et al., 2005). The empirical inquiry has revealed that companies as buyers themselves are not actually that active and demanding when it comes to expectations and auditing practices regarding supplier’s sustainability efforts (Kirchoff et al., 2016). Customers trust their suppliers in terms of meeting the minimum and that is considered to be sufficient. Interestingly, the same respondent companies considered their own customers’ requests for sustainability as urgent but sometimes hard to address due to the lack of knowledge about exact means of achieving environmental goals.

There seems to be contradictory evidence about the importance of environmental issues among supplier evaluation criteria. On one hand, supplier selection and purchasing decisions in the industrial context are characterized by rationality and emphasis on technical aspects of the supplier’s offering (Ageron

& Spalanzani, 2012; Lindgreen, Antioco, Harness, & Van Der Sloot, 2009) but, on the other, empirical evidence exists on the importance of other supplier capabilities such as social value (Andersen et al., 2016; Blome et al., 2014; Fang et al., 2008). The role of rational versus behavioral factors in decision-making is also mixed. Some studies emphasize the usefulness of quantifiable data as a basis for supplier evaluation (Bai & Sarkis, 2010), whereas others focus on the behavioral and contingent aspects of decision-making (Alexander, Walker, & Naim, 2014). Altogether, the role of environmental values remains ambiguous in the field of supply channel management and purchasing.

2.2.3 Integrating findings from marketing and supplying literature

The perspectives of buyers and suppliers represent reverse sides of the same coin, considering the multi-tiered nature of industrial supply channels in which the buyer-supplier dyads exist. Environmentally benevolent behavior in an industrial setting requires the participation of both buyer and seller and competitive success is only realized in the wider supply chain (Jeremy Hall, 2000; Junquera, Del Brío, & Fernández, 2012). The seller has to readily promote environmental elements in its offerings, which may risk its competitive advantage in terms of economic aspects as many environmental purchasing decisions are hindered by monetary issues, especially in the high-impact industries. Also, the buyer must recognize the importance of environmental issues in purchasing, which typically includes an ethical consideration between economic and ecological values. Purchasing a more ecological product requires cost assessment in a longer perspective because more environmentally friendly technologies may also be more expensive to purchase and only prove more cost-effective during use (Anderson et al., 2000). Moreover, environmental behavior often requires personal-level commitment to the subject on lower levels of organization, such as existence of an environmental champion who promotes the environmental aspect in decision-making processes (Drumwright, 1994).

Research has shown that despite generally favorable attitudes towards environmental concern, managers may refrain from environmental advocacy in more overt managerial behaviors due to perceived lack of authority and reluctance to challenge the managerial hierarchy within an organization (Fryxell & Lo, 2003). Employees may also perceive their control and responsibility over ethical aspects to be weak when acting on behalf of an organization as compared to individual consumers (Steenhaut & van Kenhove, 2006). At the same time, empirical research suggests that environmental marketing programs result from risk aversion of top management in situations where stakeholder groups are strongly in favor of environmental initiatives (Leonidou et al., 2013). These empirical findings also explain why research has not proven that an environmentally oriented strategy would always result in improved performance either from marketing or supplying perspectives.

Literature on environmental marketing and purchasing equally advances the notion of values and motivations underlining the chosen strategies, implying that values would have to be explored if the connection between environmental concern and business decisions was to be understood. Marketing and supplying literature also largely agree on the drivers, barriers and outcomes of environmental strategies on the general level. This said, individual companies may perceive the barriers and benefits of environmental effort differently (Alexander et al., 2014). Despite the obvious linkage of marketer's understanding of customer needs and marketing outcomes, environmentally-oriented literature within the stream of marketing has been limited to intra-organizational perspective to environmental concern and marketer's self-evaluations of their strategic success. As for the purchasing side, the literature reveals that sustainability in supply channels is considered important, but the benefits are realized only if customers and suppliers effectively communicate to match their needs and capabilities regarding environmental improvements. Therefore, environmental purchasing and marketing strategies only become meaningful when integrated into the wider relational framework, on the dyadic level at minimum. Figure 3 illustrates the viewpoints of customer and buyer and the parallel processes of purchasing and marketing in the business dyad.

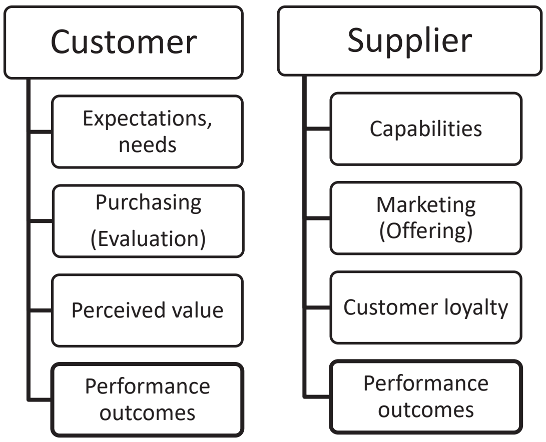

FIGURE 2 Parallel processes of purchasing and marketing.

Altogether, a pro-environmental stance both as a marketing as well as a purchasing strategy may be beneficial for those companies that succeed in comprehensive and committed implementation of the chosen strategy — regardless of its focus on either environmental or other issues (Forsman, 2013). As Figure 2 suggests, customers bring their value expectations to the supplier evaluation and purchasing, aiming at maximizing the perceived value. Respectively, suppliers harness their environmental capabilities to marketing and offerings that, via customer-perceived value, yield most favorable customer outcomes. On a general business outcome level, the competitive advantage gained from addressing environmental concerns (as any other customer need) depends on cost-efficient operationalization of the supplier organization's resources, as well as on the customer's evaluation of the value of such an effort (Hunt & Lambe, 2000). Therefore, understanding customer outcomes and supplier evaluation in a buyer-supplier relationship necessitates more detailed knowledge about customer's overall value structure where environmental values are one motivational driver among other value aspects, such as is suggested in the means-ends and tradeoff-based approaches to value determination (Zeithaml, 1988).

2.2.4 Structure of environmental values

The literature recognizes norms and moral obligation as antecedents of pro-environmental attitudes and behavior in business, along with more competitive motives. Values in business are defined as "the principles, beliefs and standards a company holds to be good, in both a moral and a commercial sense" (Hall, 1989, p. 124). However, environmental values are often considered indirectly under related constructs such as corporate environmental orientation (Banerjee, 2001), enviropreneurial marketing (Menon & Menon, 1997) or environmentalism (Starik & Heuer, 2002). In order to demonstrate the benefits of such strategy, the research interest of environmental marketing focuses on those companies that are particularly capable of benefiting from a strategic level interest in environmental preservation. Environmentalism with the "ism" suffix also signifies a specific devotion to the environmental cause. However, most companies in the industrial sector possess environmental values that are not particularly against environmental preservation but definitely not strategically oriented to the cause either (Kärnä et al., 2003). Therefore, a semantically more neutral concept of environmental values is employed in this study for the following reasons: firstly, to acknowledge the ethically laden ground of environmental consideration but without presumptions or judgment about the degree of environmental interest among industrial companies, and secondly, to enable linking of environmental awareness and associated behavior to the wider nomological network of values as goals and motives that are relevant in the research context of business relationships.

Research that focuses on individuals, either consumers or managers, has mainly considered the effect of environmental concern within frameworks that are based on the theory of reasoned action and the theory of planned behavior; the former being originally introduced by Ajzen and Fishbein (see e.g. Ajzen & Fishbein, 1977) and the latter being its more recent modification in which the aspect of perceived control over behavior is added (Madden, Ellen, & Ajzen, 1992). These theories state a two-way linkage between knowledge, attitudes, intentions and behavior so that attitudes and intentions are a strong predictor of behavior and that inferences of attitudes may be drawn from behavior (Fishbein

& Ajzen, 1974). Meta-analysis shows that the framework that includes only attitudes and intentions is surprisingly powerful in predicting actual behavior, especially in situations where a choice is included (Sheppard, Hartwick, & Warshaw, 1988). However, environmental concern seems to make an exception. Researchers have repeatedly found a gap between environmental attitudes and behavior in consumer (Barbarossa & De Pelsmacker, 2016; Bohlen, Schlegelmilch, & Diamantopoulos, 1993; Mainieri, Barnett, Valdero, Unipan, & Oskamp, 1997) and managerial contexts alike (Nemcsicsné Zsóka, 2008). For instance, Fryxell and Lo (2003) found that the New Environmental Paradigm (NEP) as an attitudinal scale only moderately explained the environmental behavior of managers. It seems unlikely that researchers would have repeatedly failed to create valid and reliable measures of environmental attitudes and behavior that would explain this persisting intentional-behavioral gap. Instead, the problem may be found in the concept of attitudes. Attitudes may not be the appropriate domain that predicts behavior, whereas norms seem to significantly influence enviro-ethical decision-making (Flannery & May, 2000).

In terms of environmental consciousness and its behavioral manifests, there are significant differences in the consumer and industrial context that also potentially affect the predictive power and applicability of cognitive-attitudinal-behavioral models of consumer behavior in business settings. Consumers may choose their level of interest and actions towards ecological preservation based on their overall values. Consumers are seldom called to account for the consequences of their anti-environmental behavior such as dumping waste in natural areas or choosing not to recycle but may also be discouraged to act because of their low perceived contribution and responsibility towards the cause on global scale (Cho, Thyroff, Rapert, Park, & Lee, 2013). Companies, in turn, are more regulated and obliged to control the effect of their operations at least on the minimum level of environmental legislation. Companies are also expected to enclose public information about their environmental policies. Hence, consumers have more power over the decision whether to engage in environmental consciousness and related behavior but, at the same time, they may lack relevant knowledge and motivation to make informed decisions in critical incidents (Barbarossa & De Pelsmacker, 2016; Gleim, Smith, Andrews, & Cronin, 2013). Companies, for their part, are knowledgeable about the topic but the gap between awareness and actions results from a more complicated structure of motives within the organization (Agle & Caldwell, 1999).

Whereas the consumer's environmental attitudinal-behavioral gap occurs in the transfer of attitudes into behavior, the gap may also be perceived in the opposite direction in an industrial context. In other words, environmental actions may not reflect particularly environmental values but an opportunistic stance. One practical example of this is the implementation of environmental standards and their effect on the overall level of ecological preservation. Some researchers have used environmental standards (e.g. ISO 14000) as indicators of environmental values (Cheng, Yeh, & Tu, 2008), while others have demonstrated that even though environmental improvements are reported among certificate holders, the implementation varies greatly (Yin & Schmeidler, 2009) and, in some cases, these standards merely enable putting up a legitimate environmental front without an increased level of environmental preservation on a tangible level of outcomes (Mueller et al., 2009). In addition, even though adoption of an environmental standard requires implementation of numerous pro-environmental actions, these actions do not necessarily generalize to other organizational functions (Agle & Caldwell, 1999). Of special importance regarding the industrial relationship context is the fact that ISO 14000 does not consider n-tier suppliers (Mueller et al., 2009). Consequently, standards may be even weaker signs of environmental concern than self-reported company values.

The non-transferrable characteristics of environmental behavior are also found in the consumer context. For example, a consumer's recycling activity does not predict more environmental purchasing behavior (Mainieri et al., 1997). On a more general level, this is stated in the work of Fishbein and Ajzen (1974) who claim that attitudes may not be drawn from single acts but require multiple-criteria indicators. At the same time, researchers have also found that the positive "spillover effect" of environmental behavior only occurs if environmental values, namely, are the underlying motivation of a single pro-environmental action such as purchasing (Barbarossa & De Pelsmacker, 2016). In the context of an organization, the multiple-criteria approach to environmental concern implies that a more environmentally oriented company has a more comprehensive approach to the topic across organizational levels, functions and processes just as suggested in the environmental marketing strategy literature (Kärnä et al., 2003; Menon & Menon, 1997).

Altogether, research that is interested in the behavioral outcomes of environmental values in particular cannot rely solely on environmental attitudes. Therefore, a multi-level and multi-domain structure of environmental values must be adopted for the purposes of measuring environmental values and their effect in the organizational context. Not many conceptualizations are provided in the extant literature but one applicable is found in the work of Dembkowski and Hanmer-Lloyd (1994) who formulated a values-attitudes framework of environmental values based on the global consumption values framework by Vinson et al. (1977). The framework emphasizes the role of values as antecedents of environmental attitudes and behavior. Environmental values are assumed to reside on multiple levels illustrating their origins in the more general priorities. Such hierarchy of priorities is assumed to affect the organization's actions from strategic-level behavior to the more practical domain-specific and attribute levels that represent tactical elements of an organization's environmental stance (Jan Hall, 1989). The multi-level conceptualization is considered as a means of tapping potential differences in values-based judgment and decision-making, as the manifestation of values may vary between different organizations, thus enabling more comprehensive perspectives to the topic (Schwartz, 1992). In addition to modeling environmental values, the objectives of this study require building linkages of environmental and other business values in order to predict the relationship outcomes. These connections are built and presented in the following chapters 2.3 and 2.4.

2.3 Environmental and consumption values in the nomological network of values

In business literature, the term ”value” denotes gains that typically emphasize the monetary benefits of business exchanges (Jan Hall, 1989). In the wider semantic network, ”value” and ”values” refer to ”desirable, trans-situational goals, varying in importance, that serve as guiding principles in the life of a person or other social entity” (Schwartz, 1994, p. 21). Human values represent broad motivational hierarchies of needs, ranging from the most elementary of self-preservation to more abstract, socially and humanistically oriented goals (Schwartz & Bilsky, 1987). The goals of human action are characterized by their terminal (i.e., ends-related) versus instrumental (means-related) focus that serves individualistic/personal versus collectivistic/social interest (Crosby et al., 1990; Rokeach, 1973). Crosby et al. (1990) suggested instrumental value dimensions to include self-actualization, hedonism, idealism and security, whereas terminal values relate to dimensions of self-direction, conformity and virtuousness. (Schwartz, 1992) proposed a 10-item list of motivational types: power, achievement, tradition, hedonism, self-direction, universalism, security, stimulation and benevolence. He concludes that the distinction to instrumental and terminal values as originally assumed by Rokeach (1973) may not be applicable, at least on the universal level. Similarly, Crosby et al. (1990) found no support for a categorical distinction between instrumental and terminal values but, instead, suggest the mutual importance of different value dimensions to range on continua of priorities, such as self-actualization and hedonism residing on the opposite ends of one single continuum.

Whereas most research posits human values as the hierarchically superior, endogenous driver of human behavior, Henry (1976), points out influence in the opposite direction; values are influenced by the culture. Consequently, research on human values is influenced by the culture in which it is conducted. Most research on values claimed to be ”universal” stems from the field of social psychology with methods bound to civilized cultures, such as data gathering by paper and pen survey methods. Results of the most cited studies on human values are produced by means that, methodologically, presume a certain cultural rapport between the researchers, the informants and the method of data gathering. Consequently, results from research on ”universal” human values only reflect value systems of humans in the civilized cultures. For example, in some primitive cultures, time is only considered in its present form and causal motivations are not exerted to actions (Lee, 1949). This results in a rather different but no less true view on values in comparison to most academic definitions that emphasize the causally-based moral judgment between values and appropriate behavior. However, in the mainstream of values research, primitive cultures represent an anthropological curiosity and are perhaps considered as an outlier of observation because they are not active participants in the dominant social, political and economic systems of civilized cultures.

Values structures and their content are not one-to-one, but structures provide the frame in which different value contents are attached to so that different value orientations represent different cultures (Henry, 1976). For instance, some cultures emphasize the aspect of collective good over individual, resulting in differences of normative expectations of appropriate behavior. Kluckhohn and Strodtbeck (1961) present four value dimensions that may be used to distinguish cultures: human's relation to nature, human's relation to other humans, understanding of time, and the aim of personal activity. The value structure of a civilized, industrial or post-industrial world represents a culture that emphasizes man's mastery over nature instead of perceiving humans as belonging to the natural environment and materialistic personal activities over self-transcending, altruistic motives (Henry, 1976; Schultz & Zelezny, 1999). In their review on values research in the field of business studies, Agle and Caldwell (1999, p. 327) state that, ”values determine, regulate and modify relations between individuals, organizations, institutions and societies”. Illustrative of the anthropofocused dominant social paradigm, such definition excludes natural environment as an object of value considerations.

Considering business life as a culture within civilized cultures, the materialistic activities based on benefiting from natural resources and monetary transactions may be paralleled to the elementary need of biological survival of humans as presented by Schwartz and Bilsky (1987). Resulting from this, corporate environmental values have traditionally been subordinated to economic goals, and it is widely accepted that company virtue towards its external stakeholders (natural environment, society), has its limits in comparison with responsibilities towards shareholders (Smith, 2009). Thus, it is characteristic of the business context that values that might be desirable end-states for individuals are yet only instrumental to the ultimate aim of business organizations. Therefore, general human values as predictors of attitudes and behavior are not directly applicable to the context of business but have an effect through specifically consumption-related values (Allen & Ng, 1999; Crosby et al., 1990).

Agle and Caldwell (1999) propose a universal causal linkage between values and behavior by following Rokeach (1973) who posits that values are rather stable systems of priorities that have an influence on attitudes and behavior across situations. Whereas general human values are rather stable, the literature suggests that values in relation to business and consumption are dynamic (Flint & Woodruff, 2001; Hall, 1989). Consumption values also reside on a more superficial level of the value structure, subordinated to the personal values (Vinson et al., 1977). In a hierarchical model, consumption value assessments are therefore more susceptible to changes caused by several drivers: situation, time and experience, type of offering, competition and customer characteristics (Ledden et al., 2007). In the context of consumption, the process of value assessment is explained by the interaction of different evaluative domains that range from global values to domain-specific and attribute-specific levels (Vinson et al., 1977). Value creation in the context of business is based on the interplay of customer's desired overall goals, situational consequences and attributes of the offering (Woodruff, 1997). Whereas individuals within a culture can be considered as possessing similar general values (Henry, 1976) the relativity of a value perception in the context of consumption varies between customers within the same culture and also among individual customers between different use situations and overall goals (Sheth et al., 1991; Woodruff, 1997).

Allen and Ng (1999) simplified consumption values into broad categories of symbolic and utilitarian value. They found modest support for the effect of personal values on product choice, particularly so that the effect is direct in situations where the symbolic meaning of the product is emphasized and indirect when consumers approach the decision from a utilitarian perspective. The symbolic meaning is located closer to the consumer's personal values and experience of "self", whereas utilitarian meaning grasps the tangible attributes of the offering. Having suggested this, Allen and Ng's (1999) findings support the notion by Sheth et al. (1991) that consumption values are independent and that their emphasis varies across situations. The direct effect of symbolic value on product choice also implies the centrality of personal values as they resist the intervening effect of situation-specific factors and transfer more directly to behavior (Schwartz, 1992). At the same time, Allen and Ng (1999) challenge the hierarchical models of value where the levels of personal and consumption-related are assumed as dependent. Personal values reside on a higher level of value hierarchy but in their larger extent of abstraction they are located further away from the specific situation where the value judgment is being made (Vinson et al., 1977). The transfer of a global, personal value into the purchasing decision would require persistence of their influence through an extended hierarchical path from personal values to consumption-related domain values. Analogously, in a hierarchical and dependent model of personal and consumption values, the effect of symbolic value should thus be hypothesized as indirect.

In this sense, the results of Allen and Ng (1999) contribute to the understanding about the effect of values on value by demonstrating the different processing styles of value judgment, whereas their assumptions regarding value types of utilitarian and symbolic are not completely compatible with the hierarchical values-attitudes-behavior frameworks that consider both general and consumption values (Vinson et al., 1977). In particular, the utilitarian-symbolic division may not be universally applicable as some products and business exchanges contain both symbolic and utilitarian benefits (Jüttner & Wehrli, 1994).

A consensus regarding the connections of consumption-related and general human values is negotiated in the work of Gutman (1990) who explains how underlying personal values add meaning to the individually varying perceptions of benefits. By following the "laddering" of meanings behind perceived benefits from attributes to more general values, the perceived differences across individuals and situations become explained (Gutman, 1990). In the case of business organizations, the ultimate goal of survival by conducting profitable business exchanges is considered. Thus, consumption values are complemented with the aspect of cost, resulting in the construct of perceived value (Sheth et al., 1991; Zeithaml, 1988). However, the prediction power of the perceived value construct in predicting product evaluation and product selection is more accurate when it represents not only the functional consumption value but also other elements; emotional, social, conditional and epistemic benefits that have their roots in general human values.

Therefore, a customer-oriented supplier has to understand the customer's value preferences and offer solutions that meet the customer's expectations and contribute to the overall value (Grönroos, 1994; Woodruff, 1997). On one hand, value creation as a benefit-focused, cooperative process has been the main interest of research within the relationship paradigm (Barry & Terry, 2008; Čater & Čater, 2010). On the other hand, empirical research on industrial purchasing behavior has shown that regardless of the various other relationship benefits, money-oriented motivations eventually define the outcome of the decision-making process to the extent that purchasing managers prefer lower-value offerings, as long as the purchasing price is lower (Anderson et al., 2000). When making purchasing decisions, customers are interested mainly in the product offering and its performance (Kuhn et al., 2008). Among customers who possess high expertise in their field of investment, technical quality is often found to be the most important driver of value (Bell et al., 2005; Ulaga & Chacour, 2001) and that the perceived sacrifices contribute to the value judgment more than quality (Lapierre et al., 1999). Therefore, it seems that functional benefits and purchasing price still determine most value perceptions of industrial customers. This study adopts the traditional view on perceived customer value by defining it as a higher-order construct consisting of quality and price related dimensions.

2.4 Research framework

In the following, the literature review of Chapter 2 is concluded by providing theoretical answers to the research questions of this study. At the same time, the justification of this dissertation is demonstrated by pointing out the theoretical contradictions and research gaps that were found in extant literature on environmental values and customer value in business relationships.

As this study examines customer perceptions about suppliers in a competitive industrial market, the value-based approach is chosen as the theoretical lens for examining environmental values and overall relationship outcomes. By doing this, it is possible to explore value and values in both their ethical as well as economic meanings (Jan Hall, 1989). The key assumption is that "customers use goals and purposes to attach importance to consequence and similarly, important consequences guide customers when attaching importance to attributes and attribute performances" (Woodruff, 1997, p. 142). These goals and purposes originate from more general values which, in turn, are the motivational basis for product evaluation, comparison and decision-making (Gutman, 1990; Vinson et al., 1977; Zeithaml, 1988). Therefore, values form the theoretical ground for understanding all customer behavior. This study focuses on environmental values as a specific subtype of values that are potentially conflicting with traditional business values but, at the same time, are inseparable aspects of contemporary business practice due to the demands of corporate socio-environmental responsibility (Smith, 2009). The literature review on the topic of environmental concern in the context of business was guided by the following research question:

1) What is the structure of environmental values among industrial companies?

In the industrial context, environmental values are not as widely studied as are the alternate strategic approaches to environmental concern in the industrial context, such as environmental marketing and purchasing among key processes regarding business relationships. Therefore, no established framework for conceptualizing environmental values was readily available, but the topic had to be approached from a rather explorative viewpoint that combined knowledge from consumer context and research on values in general both in consumer and organizational contexts. Organizational values were found to consist of multiple levels and domains (Agle & Caldwell, 1999) that are both strategic and tactic in nature, ranging from top-level corporate philosophy to various practical functions and processes (Jan Hall, 1989). In addition to their multidimensionality, environmental values are a part of the wider value system that also hosts other values (Dembkowski & Hanmer-Lloyd, 1994; Vinson et al., 1977). However, it is not within this study's scope to determine certain universal human values as antecedents of environmental values, such as is done in the works of Barbarossa and De Pelsmacker (2016) and Schultz and Zelezny (1999). Instead, the focus is on environmental values of industrial companies as contributing to their perceived overall value — as business relationships are essentially formed and managed in order to maximize this type of value. As the review on literature suggested both benefits and sacrifices in the environmental approach to value-creation in the processes of marketing and purchasing, the second research question focused the literature review on the causal connections of customer's environmental values and evaluation about the supplier relationship:

2) How do customer's environmental values affect customer-perceived value?

Review on extant literature revealed twofold findings regarding the effect of environmental values on business outcomes. On one hand, environmental marketing and purchasing strategies were found to contribute to business success in various terms from enhanced customer experience to increases in sales and overall effectiveness of operations (Baker & Sinkula, 2005). On the other hand, these studies have employed the viewpoint of strategic management, whereas this study focuses on customer perceptions and outcomes within a marketing relationship. In addition, theories that generally seem to accurately predict customer behavior based on their attitudes and intentions lose their predictive power when environmental values or attitudes are studied (Barbarossa & De Pelsmacker, 2016; Nemcsicsné Zsóka, 2008). In other words, even though environmental values are reported as relatively high among individuals, consumers or managers of business organizations, the manifestation of such values in actual behavior is lacking. These findings also run contrary to the generally agreed upon view of values as guiding principles that influence normative evaluation across situations and induce appropriate behavior. However, in the context of business, other values than environmental act as the guideline of operations (Smith, 2009). This results in a gap between environmental values and related actions, suggesting an unpredictable connection between environmental values and customer outcomes.

When perceived value is viewed as a function of benefits and sacrifices, the gap between environmental values and the customer experience of value with the consequent relationship intentions is better understood. Firstly, a typically reported barrier to environmental purchasing is the perceived inferiority in the quality of environmental products (Olsen, Slotegraaf, & Chandukala, 2014) as well as the various sacrifices that are perceived in environmentally oriented decision-making and behavior. Research on industrial purchasing behavior suggests that sometimes upgrades in complex offerings are actually perceived as carrying more risks—resulting in lower in-use value (Hultén, 2012). Analogously, the development of environmental solutions that include new technologies may be intended to address the customer's increased need for such improvements but at the same time, adds to the risk perceived in the investment.

Secondly, cost was agreed to form the main barrier of pro-environmental behavior across empirical contexts of consumer marketing, managerial behavior and purchasing functions alike (Flannery & May, 2000; Giunipero, Hooker, & Denslow, 2012; Gleim et al., 2013). In addition to quality and price-related barriers, researchers report the perceived social risk of promoting environmental values in the profit-focused context of business management (Drumwright, 1994; Zhu et al., 2005). As overall perceived value of industrial customers is most often determined by utilitarian benefits (Kuhn et al., 2008), environmental consideration may be perceived as contributing to other types of value, e.g. conditional, emotional, social and epistemic (Sheth et al., 1991), thus carrying less importance when the customer's objective is to maximize economic value (Smith, 2009).

Despite these somewhat discouraging findings regarding environmental consideration in business, some researchers suggest the opposite; that supplier's pursuing of environmental values may actually enhance the customer's overall value perception and serve both environmental and economic goals at the same time (Fraj-Andrés et al., 2009; Leonidou et al., 2013; Shrivastava, 1995).

The value-based approach provides theoretical rationale for this claim as well. Environmental attributes, as they manifest in company operations and related benefits, are a specific case of values that represent both utilitarian and symbolic aspects of value (Jüttner & Wehrli, 1994). In the industrial manufacturing context, environmental qualities are often tied to technologies that are more efficient in terms of resource usage. Therefore, the environmental quality of an industrial product offering does not erode its overall performance. In addition to this, environmentally favorable solutions also contribute to cost savings if assessment of investment is extended beyond the immediate cost horizon during purchasing.

Another potential mechanism of environmental value creation may be derived from industrial branding research suggesting that a favorable supplier image may justify price premiums (Michell et al., 2001; Persson, 2010). However, higher quality and higher price solutions imply an especially challenging task of formulating a value proposition (Anderson et al., 2000) and demonstrating these benefits requires active marketing efforts from the supplier's side (Olsen et al., 2014). Such value propositions may, however, yield extended positive outcomes if the the supplier's ability is perceived as a source of value among the buyer organization's own customers (Hultén, 2012). Environmental benefits thus contribute to various dimensions of consumption values than purely functional but are also more difficult to demonstrate as they are related to indirect and long-term cost savings and intangible social and symbolic benefits.

Altogether, it is proposed in this study that customers who possess more environmental values logically have stronger environmental motives and needs to fulfill in their supplier relationship. Consequently, more environmentally motivated customers perceive a higher benefit in their supplier's environmental image that, in turn, adds to the overall perceived value. A prerequisite is naturally that the supplier is able to create a favorable image based on its environmental substance so that the value-adding potential of such capability is realized in the customer's value assessment (Fang et al., 2008). A key weakness in research on the effect of image on overall value is that the information is mostly gained from marketing managers' self-evaluations (e.g. Homburg et al., 2010; Michell et al., 2001). Such methodological choice raises questions about the validity of results as, by definition, the supplier's image is essentially constructed in the customer's mind (Keller, 1993). Previous research also shows that since buyer characteristics and their priorities regarding supplier and product attributes vary, customers also respond to brand marketing in varying manners (Mudambi, 2002). Therefore, further empirical inquiry from the customer's perspective is required in order to validate the previous findings.

Delivering value to the customer is the key task of a supplier whereas, at the same time, suppliers ultimately seek business outcomes that, from the relationship marketing approach, are essentially generated from customer retention in long-term relationships. In order to integrate the value-based approach in the relationship context, customer loyalty is included in the research framework as the ultimate relationship outcome. Accordingly, this study seeks to answer the following question:

3) How does customer-perceived value contribute to customer loyalty?

Previous literature agrees on the direct and positive effect of customer value on loyalty (Pan et al., 2012). Besides direct effects, the literature also suggests that the linkage of value and loyalty is mediated by other constructs. Whereas most often studied are constructs of satisfaction and trust, this study focuses on marketing communication as its role and importance is often neglected in the industrial marketing context (Andersen, 2001). It has been suggested that perceived value as an overall evaluation of the supplier influences the customer's willingness to process further supplier communication (Gilliland & Johnston, 1997) and that favorable supplier evaluation increases the effectiveness of marketing communication (Keller, 2009). Such influence is less examined in the industrial context. This gap is addressed by answering the following research question:

4) How does marketing communication contribute to customer loyalty?

The supplier's need to actively communicate value is constantly mentioned According to Oliver (1999), customer loyalty is constantly challenged by the competitors' marketing efforts that may target cognitive, emotional or behavioral aspects of loyalty. In order to resist these competing messages and challengers, the supplier must actively promote its capability in meeting customer needs (Andersen et al., 2016). Whereas monetary transactions may not be on the relationship agenda in a given point of time, marketing communication is the key process that maintains the positive linkage of value and loyalty during the course of the relationship, independent of investment cycles. Research on industrial marketing also emphasizes the role of communication as contributing to less perceived risk and increased commitment (Johnston & Lewin, 1996; Morgan & Hunt, 1994).

While it could be reasonably argued that communication is also a driver of overall value, this study positions communication as a mediator between customer value and loyalty. This is justified by the temporal setting in the context of established relationships. Customer-perceived value represents the customer's evaluation regarding mainly the tradeoff of quality and price that results from the customer's experience from past transactions and the usage of the supplier's product. Loyalty, in turn, consists of present attitudes and future-oriented intentions. Consequently, communication that takes place in the present is thus most accurately modeled as mediating the effect of value assessment on loyalty. Besides enabling the transfer of value assessment to attitudinal and intentional loyalty, marketing communication also directly influences customer loyalty (Ball, Simões Coelho, & Machás, 2004; Scheer et al., 2010).

Having justified the importance of marketing communication in industrial buyer-supplier relationships on the grounds of previous literature, some managerially relevant questions remain unanswered regarding the quality and effective combination of different communication channels. This study fills in this gap by assuming that the mediating effect of marketing communication is particularly related to its customer-perceived good quality. The effectiveness of different communication channels is examined by adopting a channel-wise approach to marketing communication, providing managerial relevance regarding the optimal allocation of resources in the industrial marketing communication mix.

Based on answering the research questions with the help of previous literature, Figure 3 is formulated to illustrate the associations between theoretical constructs and the multidimensional content of each conceptualization. This framework is employed in research articles I-IV that also present more detailed hypotheses about the causal connections between constructs.

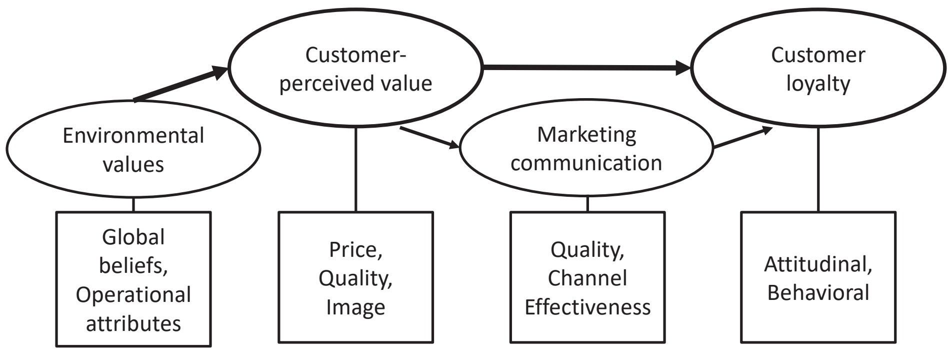

FIGURE 3 Conceptual framework of the study.

3 METHODOLOGY

This chapter presents the study's epistemological assumptions that framed the research process from the formulation of theoretical framework to empirical data gathering and analysis. First, the philosophical stance to creating scientific knowledge is discussed and then the procedures of data gathering and analysis are detailed in order to provide a clear description of how the study's results and conclusions were produced.

3.1 Research philosophy

The methodology of a scientific research project is based on two philosophical considerations: ontology that refers to the nature of being, and epistemology, the nature of knowledge. Different ontological and epistemological views result in different underpinnings regarding what is considered as appropriate, reliable and valid means of producing scientific knowledge, i.e., the methodology (Guba, 1990). In the following, the focus is on explicating the assumptions that characterize this study's premises.

The philosophical stance of this study is rooted in positivism with some aspects of critical realism. The ontology of the positivist paradigm is based on a realist view of the world, assuming that an external reality exists and that there are, if not causal laws, at least generalizations that explain the system of reality (Guba, 1990). A key characteristic of positivist research methodology is the aim of discovering the causal laws by methods that are adopted from natural sciences but also assumed applicable in the realm of social sciences (Johnson & Duberley, 2000). A positivist approach assumes independence and neutrality between the researcher and the research object, and the ”truth value” of a theory is based on its correspondence with accounts given of the reality (Johnson & Duberley, 2000). This study's objective is in line with positivist assumptions by aiming at generalizable knowledge about the reality of business life for the purposes of prediction, assuming that the perceived regularities are to some extent universal.

At the same time, some claims of positivism are not adopted in this study. First, positivism declares value freedom, i.e., independence of science from human motives (Johnson & Duberley, 2000). Considering the study's context, such a stance cannot be plausibly adopted since business essentially is a human-created realm that is operated from human motives — just as are associated research efforts. The contribution of critical realism is complementary to positivism by accepting the contextuality and inevitable human effect on the process of inquiry. The ”critical” of critical realism refers to this recognition that there can never be such human-free research activity conducted by humans themselves and, if perceived as problematic, the key to overcoming this is to admit and recognize the underlying values or motives and their effect on research inquiries (Guba, 1990). However, the ideal of objectivity is not abandoned in this study as it essentially contributes to the reliability of the study in positivist assessment (Johnson & Duberley, 2000). In this study, objectivity and independence define the researcher's role as an observer instead of co-creator in the process of interaction between reality and its observation. Whereas orthodox positivism assumes the exclusion of researcher-related and other biases to be automatic (Guba, 1990), such effortless objectivity is not trusted in contemporary research practice but the possible compromising effects of the research process on the objectivity of results are explicated in the study's evaluation.

Second, a key debate between positivist and postmodern stances pertains to the existence of non-observable phenomena and their validity as the object of reliable scientific inquiry (Johnson & Duberley, 2000). This study is based on the assumption that ”theorized entities have consequences that are observable, even if the entities themselves are not” (Lee, 1991, p. 344). Whereas a positivist approach in natural sciences aims at law-like causal explanations, this study is interested in objects and their relations, objects being understood as anything having generative power (Easton, 2002). The critical realist paradigm assumes entities exist independently of their identification but also acknowledges the existence of epistemologically relevant reality on various levels: material, ideal, artefactual and social (Fleetwood, 2005). This implies that various methods may be used in scientific inquiry, as critical realism is not bound to any particular method (Niiniluoto, 2002) thus overcoming the classical quantitative versus qualitative methods argument (Bryman, 1984). For instance, a business company can be perceived as an entity of material, artefactual and social reality but, for the purposes of understanding purchasing behavior, it may be more useful to study the social reality and experiences of human actors in business relationships than to focus on the material constitution of the organization. In fact, business relationships as based on the purpose of exchange are considered exemplar for a critical realist perspective on inquiry (Easton, 2002).

The manifest and observable actions are typically the outcome that a researcher of industrial purchasing behavior is willing to predict with a hypothetico-deductive model, the key method of positivist inquiry (Lee, 1991). Whereas a positivist stance in general is (mistakenly) discredited for paralleling ”truth” with a naive realist assumption about some ultimately determinable and absolute ”TRUTH” (Hunt, 1992) such disposition is not adopted here either. The hypothetico-deductive model accepts the inevitable underdetermination of truth and favors continuous matching attempts of the assumed theoretical logic and empirical observations. This results in an on-going process of testing, confirmation and disproval where no definite answers are possible to attain and all knowledge is subjugated to falsification as the self-correcting mechanism of scientific inquiry (Lee, 1991).

The method of inference in this study is based on statistics with the aim of testing whether the research model (hypothesized connections between theoretical constructs) can be accepted as a more likely correspondent with the reality and ”truth” among the observed sample. The legitimation of this study is assumed to lie in the generalizability of the regular pattern that is being sought during the research effort, conceptualized as external validity in the positivist tradition (Johnson & Duberley, 2000). In theoretical terms, such testing contributes to more objective knowledge and future research in terms of increased theory-informity (Hunt, 1993).

In the ”golden era” of positivist methodology, coinciding with the blossoming of the behavioral school of psychology, the heritage of natural sciences was typically embodied in controlled laboratory experiments where the researchers observed and manipulated the behavior of individuals as research objects, analogous to research settings in natural sciences. Such methodology in inquiries of human behavior (also in the organizational and business context) have since been criticized for the lack of acknowledgement of the intrapsychic reality and non-observable factors that were at play, regardless of the positivist researcher persisting with ignorance of such elements (Gummesson, 2001). Controlled observational experiments enabled maintaining objectivity and high reliability but often lacked internal and external validity.

In a critical realist understanding, the role of individuals as researchers as well as research objects is one of a cognizer and a medium that gives access to reality (Niiniluoto, 2002). This study represents conceptual mediation on two levels of epistemological subjects: identification of reality takes place in the researcher’s relationship with the research phenomenon as well as between the informants and the method of data gathering. The survey method is perhaps the most essential crossing point of positivism and postmodern thought in this study.

3.2 Empirical setting

The empirical research was conducted in industries of which the impact on environment is considered to be high. Suppliers were Finnish manufacturers of industrial equipment and solutions in the fields of pulp, paper, metals and minerals processing. Two of the three supplier firms were globally operating and publicly listed corporations and the third operated mainly in the domestic markets. Key characteristics of these mature industrial markets are lengthy investment cycles, high competition and the critical role of the supplier's product to the customer's operations. In such competitive environment the marketer's success in gaining the status of main supplier is important regarding overall performace (Fang et al., 2008; Ulaga & Eggert, 2006a). Respectively, a relationship marketing approach is typically considered appropriate as adding benefits and reducing cost for both relationship parties. At the same time, these high-impact "smokestack" industries are not considered to represent the forefront of environmental advances, providing some insight to the topic in a setting where the value of environmentally oriented strategies is particularly challenging to uncover (Banerjee et al., 2003).

By definition, a marketer's success in its value-delivery efforts only becomes meaningfully demonstrated if the customer perceives superior value in that particular supplier (Slater & Narver, 1994). Also, assumedly not many companies operating in today's heavily competed markets would argue against the profitability of a long-term orientation that requires special focus on existing customers. At the same time, the supplier's relationship efforts may unfold to the customer rather differently and real-life customer experiences may not be accurately grasped from the marketer's perspective. For instance, suppliers tend to overestimate the customer's commitment to the longevity of the relationship and, in turn, underestimate the role of relational norms (Ro, Su, & Chen, 2016). The lengthy investment cycles of the chosen industries enabled examining the factual relationship age in relation to loyalty, which is considered to be representative of a qualitative development (Oliver, 1999).

The literature acknowledges between desired and received value, of which the former represents the customer's expectations towards a supplier and the latter, by definition, the post-purchase evaluation (Flint & Woodruff, 2001). Perceived value may be assessed both in advance of and after purchasing, thus also having predictive relevance in terms of supplier evaluation and purchasing decisions (Anderson et al., 2000). After a purchase, the customer is able to evaluate the purchase more accurately and draw added value from the increasing familiarity with the supplier. In existing relationships, the favorable effect of environmental values on overall value should then be most clearly demonstrated as customers are able to uncover benefits on a wider scale: both in the dimensions of financial versus nonfinancial and tangible versus intangible (Narayandas, 2005). Empirical research was conducted in existing relationships where perceived value may be assessed meaningfully in relation to observable past behavior and future intentions in the form of loyalty, leading to a more valid setting for causal prediction.

3.2.1 Sampling

The target population consisted of customers of supplier companies that participated in the academic research project. The unit of analysis was a customer company, whereas the unit of observation was a manager in each of the customer companies. Data was collected among managers who are influential over and responsible for the particular process that was being studied. In this study, the key constructs were related to environmental values and customer outcomes in supplier relationships. The environmental managers of customer companies might have been the most knowledgeable of their company's environmental qualities and especially motivated by environmental concern but their views would have rendered less relevance regarding supplier relationship management. Therefore, the survey was targeted at managers who work in executive positions in their organization, are knowledgeable of their supplier relationships and have power over supplier decisions (Yen & Yen, 2012).

Supplier company representatives compiled the lists of target respondents from their own databases, resulting in a nonprobability convenience sampling in terms of customer companies operating within the industry but a population study within the study's target population. Supplier representatives sent the cover letter to the target population in the form of an email with a link to the online survey. The cover letter informed the target population about the twofold objectives of the survey: academic interest and suppliers' managerial interest in creating customer knowledge that would yield more needs-driven offerings and communication based on customer preferences from the supplier company. The questionnaire was available in three languages: Chinese, English and German. The target respondents were encouraged to participate by offering the chance to win a heart rate monitor. Naturally, the anonymity of respondents was ensured by emphasizing that, even though respondents were contacted by the supplier company representatives, only the academic research team had access to the survey data. The results were presented to the supplier companies so that no individual customer was recognizable based on background variables of origin, size, specific industry or other such demographic data. Respondents were also allowed to leave such descriptive items unanswered.

The survey received a total of 121 responses. The response rate was not available in this study as the target population was produced by the supplier companies and they wished to retain such information about their overall customer base. Missing data was estimated with an expectation maximization technique that estimates the means, variances and covariances based on a maximum likelihood procedure. Non-response bias was assessed following the method by Armstrong and Overton (1977) that is based on comparing the data from early and late responses.

Whereas one could express a concern over biasing effect of self-reported measures in terms of socially desirable answering and common-method bias, there are several reasons that justify the choice in terms of theory, context and methodology. Firstly, objective measures of environmental concern (such as standards) are often found to present a legitimate front of corporate responsibility that have little actual environmental potential (Mueller et al., 2009). Secondly, the theoretical framework of this study emphasizes the customer's perspective that ultimately is definitive of relationship outcomes. Thirdly, the theory of reasoned action as a broadly validated framework for modeling the mutual interaction of beliefs, attitudes and behavior claims that verbally measured intentions are as good criteria as behavior itself (Ajzen, 1991). So, whereas the commonly recognized gap between environmental attitudes and purchasing behavior may affect the linkage of predictor and outcome constructs, the self-report survey method is not likely the source of related discrepancy in this study.

Common method bias (CMB) was minimized throughout the research process following guidelines by Podsakoff, Mackenzie, Lee, and Podsakoff (2003) who suggest both procedural and statistical methods of controlling for CMB. In the data gathering phase, respondents' anonymity was ensured and emphasized, all constructs were measured with multi-item scales, and items in the questionnaire were mixed to make the hypothesized connections between constructs less obvious to the respondents. Statistical controls are reported in chapter 3.3. The effects of the sampling technique and potential biases on the study's results are also further elaborated in the study's evaluation in Chapter 5.

3.2.2 Measures

The constructs of this study were operationalized with self-reported measures. All constructs were operationalized with multi-item rating scales that were treated as interval scales in the analyses. Rating scales such as the Likert scale are especially suitable for surveying attitudes and evaluations in the business environment (Dawes, 2008; Hair, Celsi, Money, Samouel, & Page, 2015). There are contrasting views about the suitability of rating scales in more complex analyses, since the orthodox statistical interpretation posits them as ordinal and nonmetric scales. This study benefits from the empirically based statement that points of Likert scales are perceived as representing equal differences in magnitude, resulting in the quality of an interval scale and treatment of data appropriately as metric (Hair et al., 2015, p. 235). Likert scales should be as wide as possible but wider than seven point scales do not add to the reliability. The means may be relatively higher in narrower scales (5- or 7-point) as compared to 10-point scales (Dawes, 2008). A 7-point Likert was applied to the scales of predictor measures but loyalty was measured on a 10-point behavioral intention scale (Hair et al., 2015, p. 238). A finer scale of the criterion measures potentially results in a greater spread of the data and a larger variance (Dawes, 2008). Scales and items measuring customer value and loyalty were adapted from previous literature with modifications on item wordings in cases where supplier representatives considered that the context necessitated such adjustments. Focusing on the customer's self-evaluation and subjective assessment of the supplier's offering was justified by the study's theoretical and practical orientation that emphasizes the criticality of a customer-oriented perspective on outcome evaluation.

Schultz and Zelezny (1999) demonstrated that certain universal values are linked to environmental attitudes. However, in this study's context, it would not have been possible to assess personal values of respondents so the focus had to be kept on the environmental aspect of business operations. It is also questionable whether universal human values would have been meaningfully applicable in the organizational context (Agle & Caldwell, 1999). While lacking a theoretically established conceptualization, environmental values were measured as consisting of global level beliefs, domain-specific attitudes and situational attributes (Dembkowski & Hanmer-Lloyd, 1994). Their empirical equivalents were adapted from extant literature and also modified with industry experts to match the context of industrial relationships. Some items asked directly for statements about the priority of environmental preservation, whereas others mapped the domain-specific aspects such as the effect of environmental concern on processes of marketing and the environmental attributes of the company's product. The effect of values is more accurately explained on a multi-level operationalization when framed in a specific situation of judgment and decision-making (Schwartz, 1992). In this study, the specific situation was the company's stance towards environmental concern in their own operations as well as in supplier evaluation.

3.3 Method of analysis

3.3.1 Structural equation modeling and PLS method

The empirical analysis of constructs began with factor analysis that was conducted to explore and confirm the structure of latent variables. Hypothesized connections between constructs were tested with structural equation modeling (SEM), more specifically the variance-based partial least square (PLS) method. Structural equation modeling is based on determining linear equations in multivariate models with latent variables and their multiple indicators. PLS-SEM was chosen as the method of testing hypothesized connections between constructs based on its claimed suitability for objectives of predicting latent variables and identifying relationships between them (Hair Jr, Hult, Ringle, & Sarstedt, 2016)

As explicated in the book by Hair Jr et al. (2016), PLS is a variance-based application of SEM where the model is formally defined by two sets of linear equations; the first specifying the relationships between a latent variable and its observed indicators and the second determining the relationships between latent variables. Linear composites of observed variables (the outer model) are employed as proxies for latent variables in order to estimate model parameters, i.e., the inner model. Traditional covariance-based SEM considers latent variables as common factors, of which "common" refers to their illustrativeness as a bridge between theory and the empirical world (Bagozzi, 2011). Other researchers have contemplated the issue of validity of the factor-based approach by pointing out that factor-based SEM parallels theoretical concepts with (empirical) construct, locating measurement error between the common factor and its observed variables, whereas PLS conceives constructs as "stand-ins", pointing out the validity gap between the theoretical concept and its empirical proxy construct (Rigdon, 2012). This study mixes the traditional factor-based approach of determining empirical construction of theorized concepts with the means of explorative factor analysis, whereas these factors are then employed in PLS analysis as linear composites between which the hypothesized paths are examined and tested.

Certain research goals, model set-up and data characteristics are in favor of PLS-SEM use. These are related to small and nonparametric samples and the explorative stance towards theory (Hair Jr et al., 2016). These largely match the characteristics of this study in terms of explorative stance of environmental values and their effect on relationship outcomes. The key aim, as is typical of business studies, was to determine the size and significance of path relationships, especially the impact of exogenous constructs on endogenous constructs (Henseler, Hubona, & Ray, 2016). In this study, environmental values were treated as exogenous constructs that are not influenced by other constructs in the hypothesized model. Perceived value, marketing communication and loyalty were considered endogenous variables, i.e., they were hypothesized to be influenced by other variables in the model.

All constructs were treated as reflective, meaning that each latent variable causes the variance in its respective indicators (Bollen, 2011). In PLS analyses, the Mode A measurement was then employed (Hair Jr et al., 2016). This choice was based on the underlying theoretical assumption that values and attitudes are the motivation of consequent actions (Ajzen & Fishbein, 1977; Vinson et al., 1977). Environmental values, customer value and loyalty were considered as the latent constructs that manifest in reported actions, evaluations and intentions that were used as indicators. In the case of reflective variables, adding or deleting indicators does not change the loadings of other factors (Bagozzi, 2011), allowing the exploratory stance that was necessitated by the unestablished conceptualization of environmental values.

This study tested several models but the principles of statistical analysis were similar across sub-studies. In the following, the assessment of the measurement and structural models is detailed on the level of procedures and relevant testing as they are discussed in previous literature. The testing of hypotheses was based on a measurement model that specified the relations between a construct and its observed indicators, and a structural model that specified the relationships between constructs (Henseler et al., 2016). A detailed explanation of the analysis process with the PLS-SEM technique is found in the work of e.g. Sarstedt, Ringle, Smith, Reams and Hair (2014).

3.3.2 Measurement model and structural model

Data treatment and descriptive statistics were conducted with IBM SPSS Statistics 22 software. The preconditions of conducting factor analysis were tested with Kaiser-Meyer-Olkin's measure of sampling adequacy, and an exploratory factor analysis was conducted in order to aggregate items to their respective theoretical constructs. The reliability and validity assessment of the reflective latent variables included inspection of indicator reliability, internal consistency reliability, convergent validity and discriminant validity (Sarstedt et al., 2014). The reliability of factors was assessed by inspecting the factor loadings and

Cronbach's alphas. Discriminant and convergent validity are different sides of the same coin, occurring simultaneously when internal loadings of constructs and their intended measures are stronger than item loadings on other constructs. The discriminant and convergent validity was evaluated by comparing the average variances extracted (AVEs) as suggested by Fornell and Larcker (1981) and by inspecting the cross-loadings on item and construct levels (Chin, 1998). AVE is the average amount of variance that the latent variable explains in its indicators relative to the overall variance. Convergence validity was indicated by the correlations of indicators within the respective latent variable.

Simultaneous measurement of predictor and criterion variables necessitates testing for the potential effect of common-method bias. A method factor was inserted in the research model with all measures set as its indicators and the variance explained by the method model in comparison to the research model was compared (Harman, 1967). Harman's one-factor test allowed the assumption that the perceived variance was not resulting from the cross-sectional measurement.

The hypotheses were tested by specifying a structural model and examining the path coefficients between constructs. A statistical analysis software is available for PLS modeling and was used in this study (Ringle, Wende, & Becker, 2017). Serving the assessment of validity, collinearity (variance inflation factor [VIF]), significance and relevance of path coefficients and predictive relevance (R squared and Q squared) were examined as detailed in the work of Sarstedt et al. (2014). The significance of path coefficients was tested by a procedure called bootstrapping. Bootstrapping is a technique that enables estimating standard errors in distribution-free data (Hair Jr et al., 2016).

The weakness of PLS is that it does not allow estimating error terms directly (Chin, 1998). Traditional overall fit indices that are applied in covariance-based SEM have only recently been introduced to PLS, thus they were not available at the time of analyses for this study's results (Henseler et al., 2016). At the same time, Rigdon (2012) points out that the commonly agreed superiority of covariance-based SEM is based on the assumption that empirical construct equals its theoretical concept, whereas the PLS method acknowledges the existence of immensurable discrepancy between the construct and the concept. This gap is not grasped by traditional tests of reliability and validity either, as they are based on assessing the linear regressions between the construct and its indicators but actually do not provide tools for assessing the construct's ecological validity outside the particular model being tested. In other words, there are no means for evaluating whether the conceptualization of phenomena is correct in its true likeness to the external reality.

4 SUMMARY OF RESEARCH ARTICLES

This chapter summarizes the contribution of each individual research article in this compilation dissertation. The first article presents the research model that served as the conceptual guideline for the rest of the dissertation work. Each of the remaining three research articles focuses on certain elements of the conceptual model, thus emphasizing certain concepts and their connections while passing over others. The synthesis created from these individual articles is presented later on in Chapter 5 of this dissertation.

4.1 Article I: The effect of green values on loyalty: developing a conceptual framework

The first manuscript presents the conceptual model of the dissertation and details the development of the survey instrument for empirical inquiry. The aim of this study was to develop a conceptualization of environmental values in the industrial marketing context in order to model their effect on relationship outcomes of perceived value and loyalty. The manuscript reviews research on environmental marketing, analyzes the benefits and pitfalls of such approach and problematizes the competitive potential of environmental efforts as contributing to overall customer-perceived value and, further on, customer loyalty. Environmental values were assumed to consist of domains that are representative of the business organization as comprising different levels and positions of managers and employees as well as different functions from product technologies to marketing claims. The structure of environmental values was adapted from the work of Carlson et al. (1993) and Carlson et al. (1993) who distinguished four categories: product, process, image and environmental claim. These categories and their practical equivalents were chosen to represent environmental values that reside on a more abstract level, thus not directly accessible in empirical terms. Such dimensionality also allowed environmental concern to be examined as an overall stance, accounting for the organization acting simultaneously as a customer and supplier (in addition to other roles such as corporate citizen and employer).

The operationalization of environmental values was based on previous literature but also managerial insights were taken into account, as the managerial interest towards the topic was among the key drivers of the research process in the first place. Perceived value was conceptualized as a second order factor comprising price, quality and image that had received the most empirical support as critical value drivers in the industrial context (Fang et al., 2008). Conceptualization and measurement of loyalty was also adapted from previous research that concluded the concept as tapping attitudinal and behavioral elements. Marketing communication was employed in the framework as the key process that connects the supplier's marketing efforts with the customer's attitudes and intentions regarding loyalty towards the supplier. Its effect was distinguished to the quality of communication and perceived channel effectiveness.

Further on, the research questions were formulated into hypotheses that link together the key concepts of the study: environmental values, perceived value, marketing communication and customer loyalty. The effect of environmental values on perceived value is hypothesized as positive and direct and perceived value is assumed to affect loyalty both directly and indirectly via the mediating effect of marketing communication.

4.2 Article II: Customer environmental values and their contribution to loyalty in industrial markets

Article II presents the empirical testing and results of the research model. Whereas environmental values and supplier image were conceptualized as antecedents of value and loyalty, the emphasis of empirical testing in this study was on the relationship aspect. Therefore, all constructs including environmental values were modeled as first-order reflective factors, whereas the composition of environmental values is elaborated in Article III. More advanced statistical analyses of mediation and moderation were conducted in order to elaborate the formation of loyalty as depending on the strength of customer's environmental values, perceived value and supplier's environmental image. This study was among the few that model the linkage between environmental company values and consumption values, as previous notions about such linkage and initial empirical evidence only existed in consumer research (Koller, Floh, & Zauner, 2011; Ledden et al., 2007). In this study, environmental values did not have a direct effect on customer value or loyalty but they did influence the customer's perception about the supplier. The supplier's environmental image emerged as the key mediator that contributes to both customer-perceived value and customer loyalty. Also, the more environmental values a customer possessed the stronger was the linkage of supplier's image and customer loyalty. This result ran in contrast to previous research that has questioned the significance of environmental brand building (First & Khetriwal, 2010; Wong, Lai, Shang, & Lu, 2014) but supported other research that recognizes the potential of building an environmental image in the industrial context (Fraj-Andrés et al., 2009). The results opposed the assumption that customers in more developed countries and economies put more emphasis on environmental concern. Results indicated that the environmental image of the supplier was considered more important among respondents located in developing countries, potentially reflecting the growing environmental problems in emerging industrial economies as opposed to the developed countries.

This study confirmed the well-documented linkage between perceived value and loyalty (Harris & Goode, 2004; Sirdeshmukh et al., 2002) also uncovered unexpected results regarding the relationship development in the tests of moderation. The relationship paradigm states that long-term relationships are generally considered ideal for uncovering increased mutual benefits. Contrary to the hypothesis, the age of business relationship did not have an effect on the link between perceived value and loyalty. Also, the linkage of environmental values and environmental supplier image weakened along relationship age. The reasons for such findings were speculated to suggest that other factors than environmental concern and customer value as a function of price and quality contribute to supplier evaluation in more mature relationships. The findings also highlight that the relationship's duration should not be interpreted as representing success in retaining customers but quite the opposite, as representing the challenges of cultivating long-term relationships. These results also called for a more detailed examination of marketing communication as reinforcing customer loyalty.

4.3 Article III: Environmental values and customer-perceived value in industrial supplier relationships

This research article examines the linkage of environmental values and value within a buyer-supplier dyad. This article focuses more on the interplay of varying values and their effect on customer value, whereas the constructs of customer loyalty and marketing communication are excluded. As the key point of interest was the effect of environmental values on supplier evaluation, the theoretical discussion was drawn mainly from the purchasing literature which focuses on the customer's side of the relationship more than literature on environmental marketing in the industrial context does. The structure of environmental values was assumed three-tiered after models that conceptualize the connections of general human (company) values and consumption values (Dembkowski & Hanmer-Lloyd, 1994; Vinson et al., 1977). Factors that form the second-order construct of environmental values were named as corporate stance, awareness and competence. These reflected the multidimensional and multi-level nature of values in the organization from recognition of the importance of the topic to the role of strategic level management to the more practical manifestations of these values in production technology and marketing, for instance.

The direct effect of environmental values on perceived value was found insignificant but, instead, environmental values contributed to supplier evaluation in the form of perceived supplier's image. This finding confirmed that values (in this study, environmental values) affect supplier perception and that the value-based approach to business relationships is both relevant and required to understand customer expectations (Alexander et al., 2014; Toole & Donaldson, 2002). The supplier's environmental image provides the theoretical and managerial concept for understanding how supplier's environmental capabilities contribute to the overall value perception. At the same time, exploratory data analysis revealed that price-related considerations of environmental improvements were dissected from assessment of investments, replicating the previously recognized lack of an integrated view of purchasing and environmental concern among companies (Quarshie, Salmi, & Leuschner, 2016).

4.4 Article IV: The effect of marketing communication on business relationship loyalty

The fourth article focuses on the role of marketing communication within a buyer-supplier relationship. This study contributed to the theory of industrial marketing relationships by focusing on supplier-initiated marketing communication — a neglected domain of intrafirm interaction in the industrial context. The key assumption is that marketing communication influences the linkage between perceived value and loyalty. The direct linkage of perceived value and loyalty is soundly established in the existing literature. At the same time, marketing communication is found to have a direct effect on loyalty (Scheer et al., 2010). In addition, branding research suggests that the customer's evaluation of a supplier affects their processing and preferences regarding marketing communication (Gilliland & Johnston, 1997; Keller, 2009). Based on previous evidence, marketing communication is assumed to mediate the value-loyalty relationship. Marketing communication is considered in terms of quality as well as channel-wise effectiveness. In particular, more personal communication channels are assumed as more effective, thus inserting a stronger effect on loyalty than communication via mass channels. The mediation effectiveness of marketing communication is tested channel-wise in three models: personal face-to-face channels, personal channels via device and mass channels.

Results of this study show that perceived value is a significant driver of loyalty, whereas its effect is partially mediated by marketing communication. When the communication channels are considered as a whole, the effect of perceived value is mediated more by communication quality than channel effectiveness. When communication channels were divided into three subgroups, the effectiveness of each channel type had more effect in the linkage of perceived value and loyalty. Of managerial relevance are the findings that frequency is a key driver of communication quality and that traditional face-to-face channels are not necessarily superior to device-mediated personal channels.

5 DISCUSSION

This chapter compiles the results of individual research articles and sums up the knowledge that was created in the research process. First, answers to research questions are provided and contributions to the theory and practice of industrial marketing relationships are presented. Then, the research process and the results are critically evaluated and the study's merits and limitations within the chosen methodological framework are assessed. Stemming from the study's results and evaluation, perspectives and topics to further research are suggested.

5.1 Answering the research questions

Environmental concern has received growing interest as a marketing and purchasing strategy that yields competitive advantage alongside addressing the globally urgent problems of resource depletion and human-induced negative changes in the ecosystem. The aspect of environmental concern is even more critical in the context of industrial manufacturing that relies heavily on natural resources and is also a significant contributor to the ecological problems in the natural environment. Despite this critical connection of natural and business environments, environmental concern has been considered as a niche approach that is studied in isolation of general or mainstream business research. A key reason for this conceptual separation of topics and disciplines may be found from the excessively anthropocentric view of the world within the dominant social paradigm that legitimizes the role of businesses as the basis of social and human welfare allowing monetary welfare to overrule ecological concern in the global political discourse (Kilbourne, 1998). From a broader perspective, it may be argued that business sciences such as marketing and economics and global political discourse based on these disciplines have dissociated themselves from the surrounding tangible realities while disregarding the alarming findings by natural scientists (Barnosky et al., 2012). This dissertation attempts to overcome the paradigmatic gap between ecological and business considerations by integrating the role of environmental motivations in more general business objectives.

This dissertation approached industrial buyer-supplier relationships from a perspective that employs both traditional and more contemporary approaches to marketing relationships in the industrial context. Whereas the ”4Ps” based, traditional marketing management approach is criticized for neglecting the role of customer relationships and their dynamic nature, the relationship marketing approach, for its part, idealizes mutual relationships to the extent of possibly ignoring the competitive context in which business relationships take place (Pels, Möller, & Saren, 2009). The relationship marketing paradigm emphasizes the interactional and cooperative elements of intra-organizational exchange and puts specific importance on the longevity of relationships. This focus has yielded a considerable amount of knowledge on relationship dynamics from the viewpoint of marketing and supply channel management but has resulted in fewer models that enable understanding of industrial marketing relationships in which the customers relate to their suppliers from different modes or desires regarding supplier relationships (Cannon & Perreault, 1999; Pels et al., 2009). Furthermore, environmental concern has not been addressed in research on industrial marketing from the perspective of supplier evaluation and purchasing behavior.

This study contributes to research on industrial marketing by combining the relationship approach with a value-based conceptualization of key relationship outcomes: customer-perceived value and customer loyalty. By doing this, the ideal of cultivating long-term relationships was complemented with an approach that takes into account the competitive nature and cost-oriented decision-making of the industrial manufacturing context (Ravald & Grönroos, 1996). Of particular interest was the effect of customer’s environmental values on overall value assessment and loyalty within a business relationship. Not many studies in the field of marketing have considered the effect of organizational or personal values on overall customer value, even though the seminal works on customer-perceived value explicate value perceptions to have their roots in the more universal human values (Sheth et al., 1991; Zeithaml, 1988). In order to fill this gap in research, this study aimed at answering the following research problem:

> What is the effect of customer’s environmental values on business relationship?

The research problem was divided into four research questions that each represented elements of the framework of values within relationships. In order to grasp the topic of environmental motivation among business organizations, the construct of environmental values had to be first elaborated by answering the following question:

1) What is the structure of environmental values among industrial companies?

Previous literature on the topic in the organizational context was scarce but research on values altogether suggested a multidimensional and multi-level construct of environmental values (Agle & Caldwell, 1999; Dembkowski & Hanmer-Lloyd, 1994; Schwartz, 1994). The results of this study supported a threefold conceptualization of environmental values consisting of awareness, competence and corporate stance. The structure resembled the three-tiered environmental values-attitudes model by Dembkowski and Hanmer-Lloyd (1994) in which values reside on global, domain- and attribute-based levels and precede decision-making such as environmentally motivated purchasing. However, whereas the environmental values-attitudes system is assumed hierarchical, no such structure could be determined in this study. The most definitive dimension of environmental values was the awareness aspect that included both internal and external elements and processes of a business organization. Almost equally significant was the factor that pertained to environmental capabilities of the company, thus named environmental competence. Additionally, environmental values included the more abstract level of corporate stance that consisted of values, philosophy and corporate strategy.

The hierarchical or systemic values-attitudes models on consumer behavior assume the more abstract value perceptions to prime specific motivations and attribute preferences (and further on, behavior). The results of this study suggest that organizational values are not constructed on such "nested" or top-down manner from general corporate stance to more practical items. However, the values-attitudes models recognize the existence of intervening factors that are manifold in the case of an individual consumer. Among the even more complex structures of a business organization, the multiple levels of actors and functional or process-based organizational entities each insert their own effect on the practical manifestation of environmental concern, making the connections between company core values or philosophy and practical environmental values less linear.

Unlike in previous studies, no distinction between external and internal or strategic and tactic levels could be extracted either (Banerjee et al., 2003; Jan Hall, 1989). Even though the empirical measurement of constructs relating to environmental values and their practical equivalents was based on studies that assess environmental marketing strategies (Banerjee et al., 2003; Carlson et al., 1993; Kärnä et al., 2003), the focus was not as much in assessing the accordance of values and strategy formulation. Therefore, it is possible that respondents rated their organization on a less strategy-oriented approach that also revealed the less "organized" structure of items and slight inconsistencies of factor loadings. For instance, environmental awareness was comprised of items that measure the interest of employees as well as the degree of monitoring the effects of production and actions towards natural preservation. These do not easily divide into purely internal or external elements of organizational processes. Instead, the dimension of awareness can be interpreted as a representation of the normative importance of ecological consideration in the company's operations that stems from the employee interest and manifests in the company's behavior within the channel and natural environments. At the same time, the factor of corporate stance was clearly standing alone as the abstract but explicit statement about the role of environmental values on the strategic level. Research on culture posits that values represent the ideal culture, whereas norms and behavior are more reflective of the real situation. Interestingly, descriptive statistics of this study show that companies rated their corporate stance slightly higher than many items that loaded on the awareness and competence factors, and the corporate stance factor was easily extracted from the other two values factors. This hints to the existence of an environmental attitudes-behavior gap that is commonly found in the context of individual consumers and, even less surprisingly, among business organizations (Nemcsicsné Zsóka, 2008). Whereas the first research questions explored the intra-organizational structure of environmental values, the relevance of such values regarding business relationships was addressed by the second question:

2) How do customer's environmental values affect customer-perceived value?

The linkage of environmental values and customer-perceived value was rooted in the conceptualizations of consumption values by Sheth et al. (1991) and customer-perceived value by Zeithaml (1988), of which the former grasps the formation of customer value in five different value domains (functional, social, emotional, epistemic and conditional) and the latter explains the tradeoff of benefits and sacrifices that the customer is required to negotiate in order to make supplier evaluations and purchasing decisions in the competitive market. This value-based approach allowed combining the seemingly exclusive aspects of ecological and economic value in a business context. Environmental attributes were operationalized as both benefits and sacrifices that were related to the customer's evaluation about their own company and their key supplier in comparison to other suppliers in the market.

Previous literature offered twofold conclusions regarding the value-enhancing potential of environmental concern from the perspectives of marketer and customer alike. Previous literature concluded that monetary cost and other sacrifices such as perceived risk of environmental advocacy were the main barriers of pro-environmental purchasing (Drumwright, 1994; Fryxell & Lo, 2003). In addition to this higher perceived sacrifice, environmentally advanced products have traditionally been associated with lower performance quality, thus making environmental alternatives less appealing especially when functional value is the key purchasing criterion (Kuhn et al., 2008; Olsen et al., 2014). At the same time, research on environmental marketing and purchasing strategies explicated the competitive potential of an environmentally oriented strategy in terms of customer and performance outcomes (Fraj-Andrés et al., 2009; Miles & Covin, 2000; Pujari et al., 2003).

The results of this study offered both supportive and dissenting views. Environmental values did not influence overall perceived value when assessed as a function of functional and utilitarian value, i.e., price and quality. Instead, environmental values had a positive effect on the supplier's environmental image, which in turn contributed to overall perceived value. The positive influence of supplier image is expected in light of the theory on consumption values (Sheth et al., 1991), in which the supplier image may be regarded as a driver of various value components. Firstly, if perceived in the wider social context of the industrial marketing channel, the supplier's image potentially adds to the status of the customer as well. Secondly, environmental supplier attributes increase epistemic or novelty value in the form of introducing new capabilities such as technologies (Fang et al., 2008). Thirdly, the effect of the supplier's image on perceived value was stronger among more environmentally oriented customers, indicating the existence of a conditional value component that has a positive leverage on the overall value.

Environmental attributes of industrial manufacturing equipment contribute to both benefit and sacrifice elements of customer value but a longer time perspective is often required. This complicates modeling of the interplay of "get" and "give" components in value assessment. For example, the higher purchasing price reduces the utilitarian value at the time of purchasing but may yield cost savings in later phases of the investment cycle in the form of resource-efficient manufacturing technology. These types of value are recognized in the literature as in-use and redemption values that are domains of perceived value, yet lacking appropriate operationalization that would guarantee a valid and reliable measurement of these dimensions (Parasuraman & Grewal, 2000; Woodruff, 1997). This study contributes indirectly to these notions as well, as the in-use value was operationalized by asking whether customers rate the cost of more environmental production as too high or whether they emphasize the long-term assessment of investments over purchasing price. Rather surprisingly, the aspect of environmental cost was not at all related to the assessment of environmental and perceived value even though it has been generally identified as the key barrier to pro-environmental behavior in supplier relationships. All items relating to the cost of more environmental investments had to be excluded from further analyses as they were unrelated to the higher-order constructs of environmental values and customer-perceived value. In other words, the cost of environmental improvements in terms of investment assessment was absent from the customer's assessment of value.

The results of this study suggest that, on one hand, a customer's environmental concern is not integrated to the perception of functional or utilitarian value — even though environmental benefits of industrial products are often directly connected to cost efficiency of production processes. On the other hand, more environmentally motivated customers did find added value in their supplier's environmental image, which in turn had a direct and significant effect on overall value, regardless of the intangible and non-financial essence of the construct and its association to more symbolic aspects of customer value. In order to complement the linkage of values and value with relationship outcomes from the supplier's perspective, this study sought to answer the following question:

3) How does customer-perceived value contribute to customer loyalty?

This study confirmed the previously well-documented positive connection between customer-perceived value and customer loyalty (Bell et al., 2005; Sirdeshmukh et al., 2002). A supplier's environmental image also contributed to the formation of loyalty so that the loyalty-enhancing effect of image was stronger among more environmentally oriented customers. Traditionally, the effect of brand reputation on purchasing decisions has been considered as more important in the consumer context, whereas professional purchasing is characterized with a more detailed processing of information besides subjective brand impressions (Pan et al., 2012). This study supports the role of brand reputation not only as a driver of customer value but also as a contributor to loyalty. Not much literature in the B2B field has taken into account the "softer" element of customer-perceived value. Instead, the customer's experience regarding intangible, non-financial gains is extracted from value assessment and presented under the term "satisfaction" that is claimed to stand alone from the concept of perceived value (Harris & Goode, 2004; Lam et al., 2004; Oliver, 1999). This study supports the findings of Ulaga and Eggert (2006) by stating that perceived value alone is a sufficient predictor of loyalty, provided that the conceptualization of customer value is sufficiently diverse yet theoretically justified.

The conceptualization and measurement of customer value was based on a static evaluation, whereas a dynamic perspective has also been called for (Flint & Woodruff, 2001). In this study, value was measured within a single point of time, but the dynamic aspect of relationships was addressed by examining the effect of relationship age on the linkages between value and loyalty. The core assumption within the relationship marketing paradigm is that relationship longevity yields more benefits to the customer and supplier alike. Previous literature has suggested that perceptions of value are enhanced in established relationships (Anderson et al., 2000) and it is empirically demonstrated that, in longer-term relationships, suppliers are evaluated more favorably, leading to increased loyalty (Scheer et al., 2010). Our results indicate that either these benefits are not uncovered in the relationships or that the pre- and post-purchase evaluation takes place in a shorter time frame in comparison to the overall length of a relationship (of which the mean age was 18 years).

In this study, the length of relationship did not strengthen the positive linkages of environmental values, perceived value and loyalty. This finding, if not quite contradicting the basic premises of relationship approach, at least reveals the practical challenges of cultivating long-term relationships in comparison to theoretical ideals. Empirical research in the field of services marketing has revealed the capricious nature of key relational constructs over the course of time. For instance, Verhoef et al. (2002) emphasize the criticality of affective commitment along the aging of the relationship, whereas the role of trust is posited and found lesser. Raimondo, Miceli and Costabile (2008) found support for the opposite assumption that the role of satisfaction decreases while the effect of trust increases. Apart from these contradicting findings regarding certain relational constructs, previous studies and this study reach consensus on a more abstract level about the unpredictable effect of relationship age on customer loyalty in comparison to assumptions of relationship marketing theory.

Another reason for the insignificant effect of relationship age may be found from the practical level of relationship management. Supplier companies may not be creating and communicating value for their customers as effectively as they should, considering the cultivation of loyalty and maintenance of key supplier status (Andersen et al., 2016; Olsen et al., 2014). As communication is recognized as the key element of relational exchange, the fourth research question was set to provide more knowledge on the specific impact of marketer-initiated communication:

4) How does marketing communication contribute to customer loyalty?

In this study, marketing communication was assumed to mediate the linkage of perceived value and loyalty. A partial mediation effect was found but, due to the modest impact and statistical significance, it is more relevant to consider the meaning of direct effects separately. First, the direct effect of perceived value on marketing communication supports previous notions that customer's experience regarding the supplier influences the reception of supplier's communication (Gilliland & Johnston, 1997; Keller, 2009). This finding supports the role of value as transaction-based yet influential on other aspects of a relationship. Second, marketing communication as contributing to loyalty was elaborated by a channel-wise operationalization of communication effectiveness and comparison of channel effectiveness versus communication quality. It was shown that, unlike the prevailing wisdom of industrial marketing states, communication channel effectiveness had a more substantial effect on loyalty than quality of communication. Moreover, customers rated device-mediated personal communication most effective, leaving face-to-face contact second. These results suggest that the type of contact is critical in enabling the interaction between customer and supplier and that quality only comes second to the overall aim of effective contact-making.

Some rules of thumb exist in previous literature about the suitability of different channels for particular objectives of communication (Wernerfelt, 1996). In this study, the least effective channels that also had the least impact on loyalty were mass channels that are generally used for creating general brand awareness in pre-relationship phase (Andersen, 2001). At the same time, it is stated that brand marketing is not effective in existing relationships (Keller, 2009) since communication needs are more bidirectional (Ballantyne, 2004). In this study, the effectiveness of device-mediated channels potentially reflects the customers' greater need for detailed information and its efficient exchange in existing relationships (Ballantyne, 2004; Wernerfelt, 1996).

5.2 The effect of customer's environmental values on business relationship

Having answered the research questions individually, the research problem may now be answered with theoretical implications that emerge from this study's findings. Whereas previous research allowed the expectation of a gap between environmental values and their behavioral equivalents (Nemcsicsné Zsóka, 2008), this study's results do not highlight the criticality of such a gap. Instead, customer's environmental values had a positive effect on the overall customer value that, in turn, was a significant predictor of customer loyalty. This positive influence may result from the theoretical framing of environmental values and customer value within a broader nomological network of human and consumption values, thus inserting motivationally based meanings to conceptualizations of environmental and consumption value (Gutman, 1990; Sheth et al., 1991). By doing this, the seemingly incompatible economic and ecological motivations were justified to co-exist. At the same time, results of this study suggest that value hierarchies essentially differ in individual consumer and business organization contexts. Allen and Ng (1999) concluded that when consumers emphasize the product's symbolic meaning (that represents terminal values), the effect of such value on product decision is direct, whereas for utilitarian, instrumentally motivated value and product, the effect is indirect. In this study, customer's environmental values affected perceived value (in the utilitarian sense) indirectly via supplier's environmental image, suggesting that environmental values do not represent terminal values of business organizations. This conclusion is speculative considering that the value hierarchies of companies were not directly assessed, but at the same time, results support adopting a "realistic" perspective to the importance of environmental values in the context of business that essentially is motivated with monetary outcomes (Kärnä et al., 2003; Smith, 2009).

Altogether, this study contributes to the yet scant literature on the effect of values on value by demonstrating the effect of environmental values on supplier evaluation (Ledden et al., 2007; Schultz & Zelezny, 1999). Some researchers have studied environmental values in relation to environmentally oriented relationship outcomes of "green value" and "green loyalty" (Chen, 2013). Analogously, the effect of green purchasing practices and customer cooperation are found to increase the degree of management of external green supply channels and environmental performance (Lopes de Sousa Jabbour, Vazquez-Brust, Jose Chiappetta Jabbour, & Latan, 2017). However, such frameworks are based on tautological assumptions that, quite expectedly, lead to all-positive causal influences between the constructs. The weakness of such an approach is that as long as environmental values and performance are theorized and managed in isolation of other business values and outcomes, their relevance remains within the framework of environmental concern but does not assimilate into general marketing and business objectives. Industrial marketers serve customers with varying environmental stances and customers evaluate their suppliers based on various, typically even conflicting values of ecological and other origins. This study contributed to the interface of environmentally oriented marketing and purchasing literature and literature on industrial marketing relationships by combining environmental values with business-oriented value. As a consequence, the role of environmental concern is also revealed as more ambiguous.

The significance of the supplier's environmental image as a driver of perceived value supports previous findings about image as a worthy core of differentiating strategy in the industrial markets (Forsman, 2013; Junquera et al., 2012). Furthermore, the applicability of a brand marketing approach in the industrial relationship context is affirmed with preconditions similar to previous research regarding the varying importance of brand marketing for different customers (Mudambi, 2002) and the moderating conditions of buyer characteristics on the linkage of brand and market outcomes (Homburg et al., 2010). The potential of supplier's environmental competence also resonates with literature on value creation that emphasizes the supplier capabilities as a key to enduring competitive advantage (Fang et al., 2008; Flint & Woodruff, 2001; Hultén, 2012).

Environmental values in varying economic and cultural situations

In order to provide a truly integrated understanding of the interplay of environmental and economic motives and their effect on business relationships, the impact of the general economic situation on this study's results should be speculated. The timing of data gathering of this study coincided with the global economic recession in 2009-2010, and it is shown in previous literature that the general economic situation negatively affects the willingness to invest in environmental improvements due to increased risk-sensitivity and emphasis on economic survival (Yol Lee & Rhee, 2007). Economists claim that financial crises have a more direct effect on the risk sensitivity and behavior of supplying industries whereas reactions uncover less systematically on the demand side (Pavlík, 2013). As for the customer value formation, even greater weight is given to economic cost during times of recession and such uncertain situations. However, the impact of global economic downturn was not equal in magnitude across developed, transiting and developing economies (United Nations. Department of Economic and Social Affairs. & United Nations Conference on Trade and Development, 2010). The global recession had a more significant effect on developed economies but, at the same time, connections of trade and financial channels between developed and other economies complicate assessment and extraction of regional and global effects (IMF, 2009)

Based on controlling the effect of country of origin, the results of this study show that respondents from other than developed countries did emphasize environmental elements in assessments of their own company and supplier more than those from developed economies. The results of this study are thus consistent with findings from economics but also resonate with prior knowledge regarding cultural differences and relationship dynamics. Firstly, the more collectively orientated set of human values in certain cultures may have implications on various aspects of research and management of relationships: the importance of collective and transcendent motives over short-term gains (Kluckhohn & Strodtbeck, 1961), the collectively compliant answering style of respondents (Fisher & Katz, 2000) as well as the perceptions regarding congruence of values within the relationship framework (Morgan & Hunt, 1994).

Value-based approach to customer outcomes

Perceived value consisting of utilitarian as well as environmentally motivated components was a significant driver of loyalty, which supports the applicability of a value-based approach to modeling the industrial marketing relationship. The task of modeling customer value as an outcome of more general motivations is challenging but, at the same time, it is the most valid way of theorizing value creation as the construct essentially is a function of positive and negative drivers where different attributes have varying importance (Ulaga & Chacour, 2001). Also, the construct of customer value should be anchored to general theories of human or consumption values in order to maintain the semantic relevance of "value" and theoretical cohesion of research on the topic.

As a research contribution to industrial marketing relationships, this study provides knowledge about buyer-supplier relationships within a theoretical framework that acknowledges the competitive reality and varying customer preferences regarding the degree of a relationship orientation (Cannon & Perreault, 1999; Oliver, 1999; Pels et al., 2009). Such a perspective acknowledges the importance of relationships but emphasizes the role of customer outcomes instead of relational dynamics (Möller, 2013). Another theoretically and empirically relevant contribution of this study is assessing the interaction of temporal and qualitative progress of a business relationship that are sometimes assumed equal (Dwyer et al., 1987; Oliver, 1999). The findings regarding the effect of relationship age imply that industrial marketing relationships and relationship marketing orientation should not be paralleled (Pels et al., 2009). It may be assumed that favorable outcomes are increased with time only in certain types of relationships, but the qualitative development and relationship orientation of industrial customers should not be automatically assumed. This finding is expected in the light of a more general theory of marketing that explains success of marketing

In this study, the importance of customer value as the key antecedent of loyalty remained even though marketing communication was inserted as a mediator that would connect the experience-based customer value and future-oriented loyalty constructs in the temporal setting. The multiple purposes of marketing communication (e.g. sharing of information, brand building or inducing attitudinal and behavioral loyalty) were not distinguished but three key modes of communication were extracted: personal face-to-face interaction, personal communication via device and mass communication. Marketing communication may be assumed to contribute to various relationship outcomes simultaneously and mutually, which may be a challenging task in terms of modeling, yet most resembling of the reality. Also, results of this study indicate that the customer-perceived effortlessness of communication and the frequency of contact may be of more importance than the supplier's great effort in channels that traditionally have been considered as superior in attaining the desired customer outcomes. This preference of communication is in line with more generally perceived trends regarding the communication scape of industrial marketing (Mora Cortez & Johnston, 2017). The role of sales personnel remains an important element of industrial marketing (Töytäri et al., 2011) but sales should not be paralleled with industrial marketing communication. This study adds to the previous findings that customer perceptions of suppliers and additional decisions are also influenced by learning from third parties and word-of-mouth (Aarikka-Stenroos & Makkonen, 2014; Kuhn et al., 2008).

5.3 Managerial implications

Whereas this dissertation contributes to various gaps in the theoretical knowledge regarding industrial marketing relationships, the research process was equally motivated by managerial needs. Industrial supplier companies had recognized the importance of environmental consideration and were willing to uncover competitive potential of their environmental capabilities. Company managers were also interested in the opportunities provided by newer, digital communication channels as cost-efficient ways of contacting potential customers and fostering loyalty among existing ones. In the following, the study's results are transformed into implications that are of special interest to industrial marketing practitioners.

Environmental values

Industrial customer companies recognized the demands that are addressed to them in terms of environmental concern and its implementation in their operations. In addition to mere awareness, environmental values were found to comprise domains of corporate philosophy and competence. Whereas the corporate values and awareness are most meaningfully understood exogenous to the supplier relationship, the domain of competence might be of importance regarding the supplier's marketing efforts. Customers who were more environmentally motivated perceived more value in their supplier, especially in the form of the supplier's environmental image. At the same time, the aspect of environmental cost was not present in assessments of value. This may indicate that purchasing managers recognized the importance of environmental concern on the symbolic level but did not integrate such aspect into the utilitarian value. Considering the socially constructing concept of image, suppliers should scan the environmental potential in their operations and adjust brand marketing strategy accordingly in order to build an environmentally capable image among customers.

Even though this study surveyed existing customers, moderation tests with relationship age revealed that environmental capabilities are especially valued in newer relationships, which might be analogous to the importance of such benefits among prospects as well. The customer's country of origin did also affect the importance of environmental concern so that in yet developing and emerging markets, environmental issues were emphasized more than in developed and so-called Western countries. This difference might result from various causes such as cultural differences of value structures and level of value conformism within business relationships but also from the more tangible negative consequences of industrial operations in less regulated and manufacturing-intensive environs. Altogether, regional and cultural differences between values and motivations are of importance to understand among globally operating suppliers. Marketing managers should always connect their messages and offerings to some value driver that has its origins in broader motivations.

Building loyalty from value perceptions

Perceived value was confirmed as a significant contributor to customer loyalty. Marketing communication was found to mediate this linkage so that customers with higher supplier evaluation perceived marketing communication more positively. Perceived value influences loyalty but also has an impact on the perceived quality and effectiveness of marketing communication. These results indicate that transactional value is the bedrock of other relationship development. The direct linkage of perceived value and loyalty was assumed to be strengthened by relationship age but opposite evidence was found, revealing the potential flipside of lengthy relationships. Of managerial importance is the possible reason that suppliers' relationship efforts are not sufficient and that relationships are based on inertia rather than qualitatively developing loyalty. Therefore, industrial marketers should perceive the distinct but equally important objectives of delivering superior value and managing the customer experience from a more relational perspective.

Traditionally, industrial marketing has relied heavily on personal interaction as the most used, most effective but also most expensive form of relationship communication. The results of this study support the superiority of personal channels but, at the same time, provide evidence of digital and device-mediated channels as equally qualifying to meet customer preferences in terms of effectiveness. The effectiveness of different channels was also relative to the quality of communication. Customers considered sufficient frequency as contributing to communication quality. Contacting customers via email or telephone enables frequent and personal contact with the customer without requiring the effort of getting into physical proximity. Therefore, the customer's need for frequent and personal communication that adds to loyalty may be met with more efficient channels.

5.4 Societal implications

Despite this dissertation's field of discipline being marketing, the author feels obliged to stress that no business research should be conducted without admitting and contemplating the connections of business theory and practice to the wider empirical contexts. Even more so when the research topic is related to a phenomenon that does not exist in the realm of business only but originates from the wider empirical contexts. Manufacturing in all industries is essentially dependent on natural resources but, at the same time, represents a significant contributor to the growing problems of resource depletion and pollution. Industrial operations and supply channels from back-end manufacturers to front-end consumers have critical, even elementary effects on the prerequisites of diversity and survival of other entities than humans and anthropocentric socio-economic systems. Whereas the linkage of nature and industries is obvious and bidirectional, the knowledge created in natural sciences has failed to break through in the research and practice of business.

Kilbourne (1998) suggests that the dominant social paradigm (DSP) largely explains the failure of connecting ecological concern in consumption patterns — let alone decision-making and regulation on the level of larger entities such as economies or the whole global marketplace. Further on, businesses and industries as powerful aggregates of social, political and economic systems root their legitimacy on the economic, political and technical dimensions of DSP. Environmental considerations as an alternative to the prevailing social paradigm have already been presented decades ago (Dunlap & Van Liere, 1978) but the global level enviro-political decision-making has largely failed in prioritizing ecological preservation over economic development, which shows in the reluctance of significant industrialized countries to commit to international environmental objectives.

Developed, post-industrial cultures are largely dependent on businesses and industries for producing goods for both biological needs as well as more advanced individual and social motives such as hedonism, achievement and power. Business values are considered to be instrumental to human values and environmental values are subordinate to business values. At the same time, one could argue that priority of short-term business welfare as instrumental to certain human values has begun to overrule other values that, if prioritized in normative behavior, would enable genuine sustainability in a longer time frame. This leads to a "double inferiority" of natural environment in the dominant social paradigm that threatens the sustainable preservation of natural environment and consequently human life in the long run. Despite the fact that all human life is critically dependent on natural environment, the direct linkage between humans and natural environment as providing the basics for biological survival is largely broken in the developed industrial cultures, enabling the active denial of resource depletion.

As for the antecedents and outcomes regarding environmental issues and their effect on the results of this study, it is possible that respondents in yet transiting and developing economies are currently experiencing the negative environmental effects of manufacturing more substantially, whereas in developed countries these problems have been addressed with stricter regulation and also coped with by a mechanism of psychological distancing (Rothman, 1998). Paradoxically, the short-sightedness of price emphasis during economic scarcity hinders the development and implementation of environmental solutions that would actually serve as means of gaining and maintaining a strategic edge (Pavlík, 2013). Cost orientation and risk aversion as barriers to technological development also create a vicious circle where less attempts are made to behave accordingly to extend the point of depletion of non-renewable raw materials and irreversible pollution of elementary natural resources — the ultimate risk of continuing industrial operations without admitting their current deleterious effect on a global scale. It was not within the motivations of this study to assess the genuineness of environmental motives of the companies but, in order to gain a realistic picture about the critical role of industry in promoting sustainability, skepticism regarding the willingness to act emerges, whereas the potential effects are inarguable.

5.5 Evaluation of the study and further research suggestions

The methodological choices of this study are set against limitations that typically pertain to the underlying methodological assumptions. The study's evaluation contemplates the study's quality as a scientific research project and, in the final paragraph, suggestions for future research are drawn from the theoretical content of this study with proposals for further inquiries in the field of marketing.

5.5.1 Evaluation of the study

This dissertation claimed to stand in a positivist stance with some elements from the critical realist paradigm. The motivation of the study and the review of literature were more reflective of a critical realist perspective but the empirical process of gathering data and testing of research hypotheses was based on solely statistical methods. In consequence, the following evaluation of the study is based on assessing the study's reliability and validity in the frame of a quantitative method with respective criteria.

Starting from the beginning of the empirical part of the research, the sampling technique may carry some implications regarding the representativeness of the sample and generalizability of results. The response rate could not be determined as the population study was based on the suppliers' customer databases which they, rather understandably, preferred to keep confidential. On one hand, the sampling technique of this study may lack representativeness but on the other hand, the involvement of supplier companies enabled reaching industrial customers from various geographical and economic regions worldwide, and the sample size can be considered as sufficient in the industrial context. There is however, potential bias resulting from the sample being limited to customers of the three companies in their particular markets so that the generalizability of the results to other industries may be limited.

Another important aspect regarding the generalizability of the results is the choice of using individual managers as the informant regarding a whole company. Agle and Caldwell (1999) emphasize the importance of determining the relevant level of inquiry when studying values in business. Cross-level fallacies may occur if conclusions regarding some organizational level are derived or integrated from another organizational level. In this study, the unit of analysis was a company but information was gained on the level of managers. This risk to ecological validity of the sample and results was minimized by targeting managers who are sufficiently knowledgeable and influential regarding the topics of interest, an approach commonly accepted to yield adequate information regarding research purposes (Selnes, 1998). Empirical research also shows that individual managers and such influential champions are eventually in charge of organizational behavior (Drumwright, 1994; Yen & Yen, 2012), lending the potential difference between organizational and individual levels of carrying less important regarding the research phenomenon.

As is typical of studies in the field of business, self-reported cross-sectional data was employed to test the correlations and causal linkages between constructs. This method is commonly accepted in business studies but it is especially vulnerable regarding the biasing effect of common-method variance. Common-method bias was addressed and minimized throughout the research process by following the guidelines provided by Podsakoff et al. (2003). Linear correlation was assumed to exist between values and behavior. Correlation of attitudes and behavior is higher when validity of criterion behavior and its linearity are higher, i.e., validity and linearity of behavior is necessary for correlation of attitudes and behavior (Fishbein & Ajzen, 1974). Multiple-act criteria were employed to measure loyalty, and its operationalization was based on a theoretically established operationalization. Values and customer value were also measured with multiple items that were related to the specific situation, as suggested in previous literature (Schwartz, 1992). This adds to the validity of the measurement model and testing of hypotheses in the structural model.

The arguable nature of causal directions between relationship constructs is pointed out in the previous literature. The cross-sectional method of this study resulted from "a static model that provides a single-time-period perspective of ongoing partnerships" (Anderson & Narus, 1990, p. 45). Even though such a statement is being made, business researchers and practitioners are always eventually interested in forecasting the future, paradoxically in order to make better informed decisions regarding actions in the current point of time. This study was particularly interested in providing understanding about the effect of certain elements on future behavior. One could argue that cross-sectional self-reported data as the source of information is a substantial liability to the validity of results. At the same time, actual behavior is neither prerequisite nor relevant in predicting future outcomes as self-reported intentions are found to predict behavior almost as accurately as observed behaviors, provided that the actor is sufficiently empowered to perform the intended action (Sheppard et al., 1988). This study also distinguished relationship age from loyalty so that the more genuine attitudinal and behavioral commitment towards the supplier resulted from their own expressions instead of externally given facts.

One research project is limited to one framework that is theoretically justified and empirically tested, other valid approaches are necessarily excluded. Also, within one research model it is possible to operationalize and test only a limited number of theoretical constructs and their relationships. This study focused on values, value and marketing communication, whereas other key antecedents of loyalty such as trust and satisfaction were excluded. Reasons for this are presented in the following. The customer's trust towards the supplier is considered critical in the services sector as well as in the online context (Harris & Goode, 2004). Also, the role of trust is emphasized when business exchange takes place in a manufacturer-distributor relationship (Morgan & Hunt, 1994). In this study, the object of transaction was essentially a tangible product, the interaction between relationship parties took place mainly in personal, face-to-face channels and the customers could be regarded as showing a critical level of trust already when engaging in the particular business relationship in the first place. Satisfaction, for its part, is often considered as an important mediator in the relationship between value and loyalty (Patterson & Spreng, 1997) whereas on the other hand, its role in a relationship is concluded to be secondary to value (Eggert & Ulaga, 2002) and also less important in the business context (Pan et al., 2012). Altogether, the value-based approach of this study resulted in an emphasis on customer value as the key antecedent of loyalty. However, the role of trust might prove useful when considering the pre-purchasing stages, as suggested in previous literature (Verhoef et al., 2002).

Whereas multiple regression modeling is illustrative of the real world setting in which several independent factors produce dependent outcomes (Hair et al., 2015), the complexity of models with direct, mediating and moderating effects also adds challenge to justified inference of causality and the model's ability to predict future outcomes. When the research phenomenon and its operationalization considers highly subjective, psychological and largely immensurable constructs, the method of inquiry and observed causal connections are to be accepted with certain "boundary conditions", recognizing the potential of various other exogenous variables and intervening factors that were not included in this study's framework. Therefore, whereas this study's validity and reliability are argued as a quantitative research, the judgment regarding the applicability of such methodology to the research phenomenon and context remains with each reader to evaluate themselves. The law-like characteristics of causation that are adopted from natural sciences may not be valid in the context of business research, even though the methodology of this study implies such epistemological orientation and the results support the hypothesized causal effects.

Bagozzi (2011) offers relief to this tension that each methodologically aware researcher is likely to experience during the attempts to make the best possible science out of the resources and methods currently available. He suggests that one's ontological and methodological identity as a scientist is not fixed but in a constant process of reconciling in order to gain a momentary balance between seemingly incompatible and contrasting disciplines and methods. This dissertation was an effort of a quantitative nature, whereas some other approaches and frameworks may be equally relevant to the research phenomenon. The suggestions for future research are presented next as a finale for this dissertation.

5.5.2 Further research suggestions

This study explored environmental values and their effect on overall value. Further research should attempt to specify how the different domains of environmental values (awareness, corporate stance and competitive stance) influence customer perceptions of value. It is also possible that the effects of environmental value on perceived value would become more significant if the value in-use and redemption values would be more explicitly measured. However, operationalization of these types of value is yet to be developed (Hultén, 2012; Parasuraman & Grewal, 2000). Inquiries of a qualitative nature would enrich understanding of the customer's perceptions regarding the different value-adding aspects of environmental efforts in the overall value creation process. Of great relevance would be a research setting where the tasks of marketing and purchasing were approached simultaneously, considering the integration potential of such domains in order to yield organizational efficiency in addressing stakeholder demands as well as value creation in the value chain.

As the supplier's environmental image contributed to customer loyalty, future research should build on the findings of this study by deepening the perspective to industrial brand building. Future research should also study the effect of marketing communication on value, as the linkage of value and communication is likely bidirectional and communication is also essentially a means of brand building. Industrial marketing communication is sometimes criticized for a technical and transactional approach that does not explain relational customer outcomes. The results of this study suggest that utilitarian, transaction-oriented value alone is a significant antecedent of loyalty and that utilitarian value also affects evaluations about supplier's marketing communication. As this study lends support for both brand and performance-related marketing approaches in existing relationships, it would then be useful to further examine the mutual importance of utilitarian versus other benefits as contributing to the development of loyalty. Analogously, the effect of marketing communication on attitudinal and behavioral dimensions of loyalty was not distinguished in this study, but further study would provide useful insights into the practices of relationship marketing.

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ORIGINAL ARTICLES

I

THE EFFECT OF GREEN VALUES ON LOYALTY: DEVELOPING A CONCEPTUAL FRAMEWORK

by

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The effect of green values on loyalty: developing a conceptual framework

Keywords: green marketing, environmental, business-to-business, industrial markets

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Abstract

There is a growing body of literature on the various environmental strategic choices involved in green marketing and on the opportunities it provides. However, little is known to date about how industrial customers receiving green marketing communications view the environmental elements in the context of the whole value offering, or to what extent green values affect perceived value and loyalty. A further extension of value perception is loyalty and this study is interested in explaining the formation of loyalty based on green values, perceived value and marketing communication. This study develops a conceptual framework to model the effect of green values on the overall value perception and loyalty via marketing communications. The suggested model is operationalized into a questionnaire to be used in an industrial context.

Introduction

The terms “green”, “environmental” and “sustainable marketing” all describe the progress towards sustainability (Peattie and Crane 2005). Studies on green marketing emerged in marketing literature in the early 1990s, and since then it has been a topical subject with various viewpoints attached to it. Essential concepts in green marketing literature have been the ‘enviropreneurial’ (marketing) strategy (Baker and Sinkula 2005; Menon and Menon 1997) and corporate environmentalism (Banerjee, Iyer and Kashyap 1997). The aspect of corporate social responsibility has been covered in studies on both consumer and industrial markets (e.g. Drumwright 1994; Grove, Fisk, Pickett and Kangun 1996; Kärnä, Hansen and Juslin 2003). The stakeholder perspective is often taken into account in the environmental research since companies are always operating interdependently with the surrounding society and its environs (Maranville 1989; Polonsky and Ottman 1998; Turker 2008).

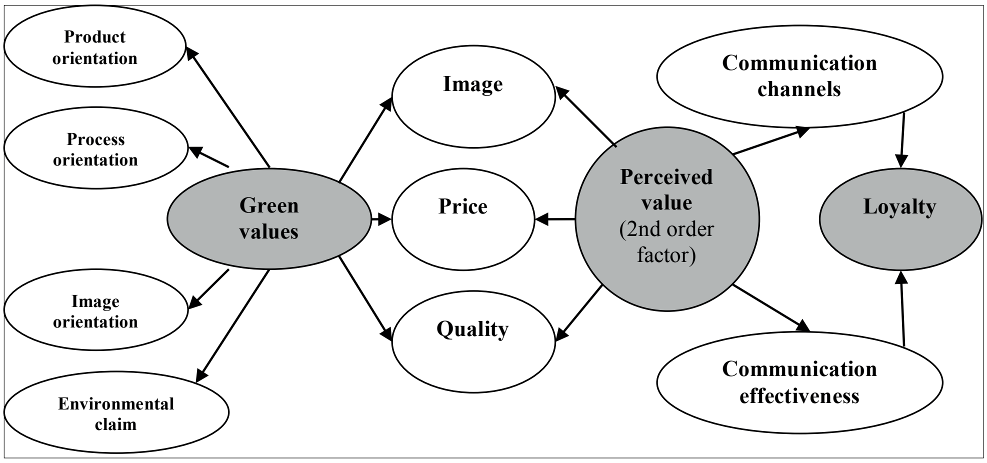
Criticism of green marketing has also been presented and the concept has even suffered some degree of “backlash”, especially in the consumer markets (Crane 2000). A lot of advice has been given to companies on how to innovate and create greener offerings in order to enhance sustainable development in a certain market (Isaak 2002; Polonsky and Rosenberger 2001). However, green marketing efforts have often failed because of credibility problems, the lack of customer perspective and also internal resistance within companies (Peattie and Crane 2005). In addition, many green actions or ‘greening’ efforts proposed thus far are still somewhat unsuitable for industrial markets, since the green marketing actions are limited by the features of the industries themselves (Banerjee et al. 1997). For example, a paper machinery or mining equipment manufacturer cannot realistically promote a green alternative as these industries necessarily use natural resources and may cause environmental problems. Also certain economic criteria often limit the industrial purchasing choices (Drumwright 1994) so the decision is not based only on, for example, personal beliefs and environmental attitudes, which have been found to be predicting factors in consumer decision-making (Mainieri, Barnett, Valdero, Unipan and Oskamp 1997; Schlegelmilch, Bohlen and Diamantopoulos 1996).

However, a product or a technology can be both cost-efficient and more environmentally friendly at the same time, leading to an enhanced competitive advantage even in a “dirtier” business (Banerjee 2001). The problem is therefore to know more about the green values of industrial customers in order to effectively and successfully communicate different environmental benefits in addition to the costs. This study aims at illustrating the connection between value perception and loyalty from the green marketing perspective. Some tentative research hypotheses for empirical testing of the model are also formulated. In the future, testing the proposed model would also produce managerial implications for the industrial marketers trying to perform successfully in the challenging competitive environment of the 21st century.

The effect of green values on loyalty: a conceptual framework

The conceptual model presented in Figure 1 displays the causal links to be tested in this study, based on previous studies and green values added as a new construct. The model benefits from two research streams in green marketing. In consumer markets, green advertising has been a popular research subject (e.g. Carlson, Grove and Kangun 1993; Carlson, Grove, Laczniak and Kangun 1996). In industrial marketing the focus has been more broadly on studying the general degree of environmentalism in companies, as for example, advertising is not usually the most heavily used tool in the promotion mix (McArthur and Griffin 1997). Often the primary focus of environmental activities is on manufacturing issues and respectively, the opportunities to execute green marketing communications are underutilized in industrial firms (Banerjee 2001).

Figure 1. Conceptual model of the effect of green values on loyalty.



Green values

The greenness of a company can be examined from various perspectives. It can be measured in terms of the orientation towards environmental issues (Menon and Menon 1997) and at the level of developing environmental strategies (Banerjee 2001). In the greenest extreme, environmental issues define the enterprise level strategy and the organization itself is built to address ecological sustainability. These companies are characterized as 'enviropreneurial' marketers (e.g. Baker and Sinkula 2005; Menon and Menon ibid.), corporate environmentalists (e.g. Banerjee et al. 2003), or even 'ecopreneurs' in its most idealistic form (Isaak 2002). Different green strategies can be characterized as proactive, reactive, opportunistic or compliance-driven (Kärnä et al. 2003; Lee and Rhee 2007). These describe the stance towards environmental issues in a company, in other words meaning whether the environmental strategy choices emerge from the company itself or just as a response to external pressures regarding green actions (Baker and Sinkula 2005; Polonsky and Rosenberger 2001). A near analogous classification with the aforementioned is the distinction made between tactical, quasi-strategic and strategic approaches to green marketing (Menon and Menon 1997; Polonsky and Rosenberger 2001).

This study does not directly explore the green strategies of customer companies but the suggested green categories do also provide some insights into the degree of greenness among industrial customers. Moreover, it is not necessarily relevant to divide companies into environmentally "good" or "bad" based on the chosen strategy, as in some cases, the industry type determines the degree of environmentalism (Banerjee et al. 2003) and the industry inevitably causes some environmental effects (Maranville 1989).

In terms of marketing communication in particular, the greenness of a company can be divided into four categories relating to: product orientation, process orientation, image orientation and environmental claim (Carlson et al. 1993). These categories were originally suggested by studies of advertising but they have been found also to be applicable to other studies on greenness (e.g. Carlson et al. 1996). In this study, these green orientation categories are applied to reflect the whole green value construct of a customer. An examination of these orientations is intended to provide more information about how the greenness of customers occurs at the four levels. Product orientation refers to the green product decisions and attributes. Process orientation reflects the internal technologies and production. Image orientation indicates the company's aim of being environmentally responsible both as a company and as an organization comprising environmentally conscious individuals. Environmental claim covers the social responsibility issues in the form of actions, such as influencing others and making decisions based on environmental issues. On this basis, it is hypothesized that:

H1a: Green values consist of four categories: product orientation, process orientation, image orientation and environmental claim.

H2b: Green values have a positive direct influence on image, price and quality.

Perceived value

Perceived value can be defined in various ways. Typically, research has defined value as a trade-off between the benefits and sacrifices of an exchange of a product, service, brand, store, or interaction with sales personnel (Holbrook 1994; Teas and Agarwal 2000; Zeithaml 1988). Although customer value has lately been at the center of interest in service marketing research (Cronin, Brady and Hult 2000), the study of customer value is still in its infancy (Day and Crask 2000). Value is considered as a multidimensional concept consisting of several different types of value. Sheth, Newman and Gross (1991) for example categorize value into functional, social, emotional, epistemic and conditional value. Sweeney and Soutar (2001) identify four types of value, namely emotional value, functional value, social value and monetary value. Fang, Palmatier and Evans in turn propose that value consists of image, price and quality (Fang, Palmatier and Evans 2008).
Problem-solving orientation and competence are antecedents of trust and, further on, value (Sirdeshmukh, Singh and Sabol 2002). In this study, problem-solving orientation and competence are related to the supplier's ability to provide environmental solutions. As green elements are one explanatory factor of overall perceived value, it could also be assumed that the greener the customer company is and the more value it perceives in the relationship, the more loyal it is; as shared values explain the commitment to the relationship (Morgan and Hunt 1994). In this study, we follow Fang et al.'s definition of value and therefore propose the following:

H2a: Perceived value has a direct positive influence on communication effectiveness
H2b: Perceived value has an indirect effect on loyalty via communication

Communication

Communication has a positive effect on commitment (Morgan and Hunt 1994), in other words "the want-to-do-business" (Mohr, Fisher and Nevin 1996). McArthur and Griffin (1997) found that some marketing communication channels (or tools) used by business-to-business companies are more coordinated than others and that more effort is spent on some tools than on others. The effectiveness of tools also varies (Mohr and Nevin 1990).

Information about the relevance of certain channels is essential when considering the possible need to redefine marketing communications (Kliatchko 2008), for example when answering the question posed by Polonsky and Rosenberger (2001), asking "what green to promote and how?"

H3: Communication channels and effectiveness mediate the effect of perceived value on loyalty.

Loyalty

Values influence commitment (Morgan and Hunt 1994) and in this case the concepts of commitment and loyalty are regarded as terms describing the same phenomenon, explaining future intentions to continue the business relationship (Mohr et al. 1996). Willingness to recommend the company, i.e. positive word-of-mouth is also one important expression of loyalty (Harris and Goode 2004) and, as an element of the loyalty construct, this is particularly interesting in the industrial context. Satisfaction is one antecedent of loyalty (Oliver 1999) but the relationship between the two is not unambiguous, and satisfaction alone does not fully explain loyalty. Instead of satisfaction, loyalty is explained through value as more of an umbrella concept (Sirdeshmukh et al. 2002).

Operationalizing the constructs for empirical testing of the proposed model

The questions have been devised with due regard to the fact that the informants are not the end-users in their own value chains. Measures for the questionnaire are adapted from previous studies with slight modifications by industry experts to better fit the targeted respondents' businesses. Seven- and ten-point Likert scales are used. Background variables used are the responding company's country of origin, field of business, annual turnover and the length of the relationship with the other company. This information enables formulating geographical value profiles of customers (Wong 2002), understanding the possible moderating effect of the field of industry to environmentalism (Banerjee et al. 2003; Menon and Menon 1997) and explaining the possible moderating effect of buyer-supplier relationship length (Palmatier, Scheer, Evans and Arnold 2008) and supplier involvement in improving environmental performance (Pujari, Wright and Peattie 2003).

The greenness of each customer is measured under the four categories of Carlson et al. (1996). Product, process and image orientation were all measured by four items each and the environmental claim with five items. The questions were adapted from Carlson et al. (ibid.), Kärnä et al. (2003) and Zhu, Sarkis and Geng (2005). The new items were formulated with input from industry experts but the image orientation measure about employee interest in green values is a modification from the measures of the internal environmental orientation construct by Banerjee et al. (2003). Accordingly, the new item in the environmental claim construct reflects the external pressures towards environmental friendliness (Banerjee et al. ibid.).

The value drivers forming the perceived value construct are image, price and quality. The image perceptions were measured with two questions from Ciavolino and Dahlgaard (2007) and one measuring product offering value compared to competitors in terms of environmental performance (Palmatier et al. 2008; Pujari et al. 2003). One of the two price-related items was adapted from Ciavolino and Dahlgaard (ibid.) and the other was formulated with experts to find out whether the customer is willing to pay more for an environmentally friendly product. This item has its justifications in Kärnä et al. (2003) and also in the work of Drumwright (1994) studying environmental and noneconomic buying criteria. The questions of Drumwright (ibid.) were also revised and used in the new item measuring quality. Other quality measures were adapted from Sweeney and Soutar (2001) and Fang et al. (2008).

In order to gain information about the effectiveness of different communication tools, a ten-item list of communication channels was adapted from Mohr et al. (1996). Also the quality of communication was measured with five questions adapted from Del Bosque Rodríguez, Agudo and Gutiérrez (2006).

Loyalty was measured with three questions previously used by Sirdeshmukh et al. (2002). Questions were measured on a ten-point Likert scale and covered future intention of doing business with the specific supplier, recommending the supplier to others and also intention to use the same supplier for the next purchase. The other two measures of loyalty indicate whether the supplier is found to be better than its competitors (Harris & Goode 2004) and if the respondent’s company is likely to continue the business relationship (Bell et al. 2005). The measures are included in Appendix 1.

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Appendix 1. Items used to operationalize constructs

Green values (7-point Likert scale 1=strongly disagree…7=strongly agree)

Product orientation
Our products are environmentally friendly (Carlson et al. 1996)
The cost of producing environmentally friendly products is too high in our company (Zhu et al. 2005)
In our strategic product decisions, we place much emphasis on the environmental friendliness of our products and solutions (Kärnä et al. 2003)
Our customers request us to improve the environmental friendliness of our products (new item modified from Banerjee et al. 2003; Polonsky & Rosenberger 2001)

Process orientation
Our production technology is more environmentally friendly than our competitors' (new item modified from Banerjee et al. 2003; Polonsky & Rosenberger 2001)
Environmental issues have had a strong impact on our distribution channels (Kärnä et al. 2003)
Our company co-operates with customers on environmentally friendly products (Zhu et al. 2005)
Our company's disposal methods yield environmental benefits (Carlson et al. 1996)

Image orientation
Our company uses 'environmentally friendly' claims in its marketing communications (new item modified from Banerjee et al. 2003)
Our company's employees have a strong interest in green values (new item modified from
Our company takes actions to preserve natural resources (Carlson et al. 1996)
Environmental issues have had a strong impact in our company's values and philosophy (Kärnä et al. 2003)

Environmental claim
We accept a longer return on investment for environmental friendly products / solutions than for other investments (new item modified from Drumwright 1994)
Our company should redirect our customers towards more environmentally friendly products (Kärnä et al. 2003)
Our government pushes our company to be more environmentally friendly (new item modified from Baker and Sinkula 2005; Banerjee et al. 2003)
We are well aware of all the environmental effects of our production (new item modified from Banerjee et al. 2003)
In decision-making, our company profits will carry a heavier weighting than environmental friendliness (new item modified from Drumwright 1994)

Perceived value (7-point Likert scale 1=strongly disagree…7=strongly agree)

Company X is a reliable supplier (Ciavolino and Dahlgaard 2007)
Company X is known to be environmentally conscious (Ciavolino and Dahlgaard 2007)
Company X offers better products and solutions to improve our company's environmental performance than its competitors do (new item modified from Pujari et al. 2003)
Company X´s price is reasonable in relation to the delivered outcome (Ciavolino and Dahlgaard 2007)
Company X´s products and solutions perform consistently (Sweeney and Soutar 2001)
The products/services provided by Company X are of higher quality than others' (Fang et al. 2008)
Our company is willing to pay more for environmentally friendly products and solutions (modified from Drumwright 1994; Kärnä et al. 2003)
A lower purchase price is more important to us than life-cycle cost in five years time (new item modified from Drumwright 1994)

Communication channels (Mohr et al. 1996)

Scale ranging from 1=not at all effective to 7=extremely effective
Face-to-face interaction with X
Telephone interaction with X
E-mail
Web site
Trade shows
Seminars
Advertising
Magazine
Interaction with others (e.g. colleagues)
Site visits

Communication (del Bosque Rodriguéz et al. 1996 adapted from Cannon and Perreault 1999 and Morgan and Hunt 1994)
7-point Likert scale 1=strongly disagree...7=strongly agree

Company X contacts us with adequate frequency
Company X provides useful information for our business
Company X uses suitable communications channels for us
Company X´s communications are efficient
Company X actively communicates solutions for improving the environmental performance of our production

Loyalty (Sirdeshmukh et al. 2002)

How likely are you to...(1=very unlikely...10=very likely)

Do most of your future business in this sector with Company X?
Use Company X the next time you need similar products/services?
Recommend Company X to other firms?

(7-point Likert 1=strongly disagree...7=strongly agree)

I have repeatedly found Company X to be better than others (Harris & Goode 2004)
The chances of our company staying in this relationship are very good (Bell et al. 2005)

Background variables:

Your firm's country of origin
Your company's field of business
How many years has your company done business with Company X?

II

CUSTOMER ENVIRONMENTAL VALUES AND THEIR CONTRIBUTION TO LOYALTY IN INDUSTRIAL MARKETS

by

Nora Mustonen, Heikki Karjaluoto & Chanaka Jayawardhena 2016

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III

ENVIRONMENTAL VALUES AND CUSTOMER-PERCEIVED VALUE IN INDUSTRIAL SUPPLIER RELATIONSHIPS

by

Nora Hänninen & Heikki Karjaluoto 2017

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IV

THE EFFECT OF MARKETING COMMUNICATION ON BUSINESS RELATIONSHIP LOYALTY

by

Nora Hänninen & Heikki Karjaluoto 2017

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