Advancing Quantitative Measurement in Stakeholder Theory: Indices of Stakeholder Engagement and Stakeholder Relationship Types

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Daniel Laude

from

Germany

Approved on the application of

Prof. Dr. Antoinette Weibel

and

Prof. Dr. Sybille Sachs

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Abstract

A considerable part of the literature on stakeholder theory empirically investigates hypothesized relationships between constructs such as stakeholder management and financial performance of organizations. This theory testing requires valid measurement models that represent the underlying constructs. Compared to other fields, the stakeholder literature has developed and validated relatively few of such measurement models. Additionally, the existing models suffer from methodological problems with respect to measurement specification and level of abstraction. The aim of this dissertation is therefore to advance quantitative measurement in stakeholder theory by developing two new measurement models that consider and address the methodological problems of existing models.

The first measurement model is an index that operationalizes the engagement of a focal organization with respect to an individual stakeholder (single person). This index consists of 23 practices in four different dimensions of stakeholder engagement. The construction of the index includes a review of the stakeholder engagement literature, a qualitative study with expert interviews and two quantitative studies (a key informant survey and an employee survey). The second measurement model is another index that operationalizes the type of relationship between an organization and an individual stakeholder. This index builds on relational models theory and thus includes four elementary relationship types, which are applicable to organization-stakeholder relationships. The process of index construction contains the development of indicators based on an existing relational models scale and the evaluation of the index by means of the two mentioned quantitative studies.

For what concerns existing measurement models and their methodological problems, there is evidence to suggest that stakeholder theorists have neglected the issue of measurement specification. Therefore, this dissertation addresses the specification of the two developed measurement models and transfers the current state of the art in index construction to the empirical stakeholder literature. Regarding the level of abstraction, the indicators (items) of existing measurement models in stakeholder theory commonly refer to *all* stakeholders of an organization and thus ask subjects about their stakeholders in aggregation. Both indices constructed in this dissertation target the interaction between the focal organization and *one* individual stakeholder, which considers the differentness and variety of those interactions with various stakeholders.

Zusammenfassung

Ein beachtlicher Anteil der Literatur über die Stakeholder-Theorie untersucht die empirischen Zusammenhänge zwischen Konstrukten wie beispielsweise dem Management von Stakeholdern und der finanziellen Performanz von Organisationen. Solche Untersuchungen erfordern valide Messmodelle, die die ihnen zugrundeliegenden Konstrukte korrekt abbilden beziehungsweise operationalisieren. Abgesehen von wenigen Ausnahmen hat die Stakeholder-Literatur im Vergleich zu anderen Forschungsfeldern relativ wenige Messmodelle hervorgebracht. Zudem weisen die bestehenden Messmodelle methodische Schwächen bezüglich der Messspezifikation und der Abstraktionsebene auf. Aus diesen Gründen verfolgt die vorliegende Dissertation das Ziel, die quantitative Messung in der Stakeholder-Theorie zu verbessern und entwickelt hierzu zwei neue Messmodelle unter Berücksichtigung der Schwächen bestehender Messmodelle.

Das eine Messmodell ist ein Index, der das Engagement – englisch für Auseinandersetzung oder Beschäftigung – einer fokalen Organisation mit einer Einzelperson als Stakeholder operationalisiert. Dieser Index besteht aus 23 Praktiken in vier verschiedenen Dimensionen des sogenannten Stakeholder Engagements. Die Konstruktion des Indexes beinhaltet eine Literaturanalyse, eine qualitative sowie zwei quantitative Studien. Das andere Messmodell ist ein weiterer Index, der den Typus der Beziehung zwischen einer Organisation und einer Einzelperson als Stakeholder operationalisiert. Dieser Index basiert auf der Theorie relationaler Modelle und enthält daher vier elementare Beziehungstypen, die auf Stakeholder-Beziehungen anwendbar sind. In diesem Fall umfasst die Indexkonstruktion die Entwicklung von Indikatoren auf Grundlage einer bestehenden Skala relationaler Modelle sowie die Evaluation durch die zwei obengenannten quantitativen Studien.

Bezüglich der zuvor bestehenden Messmodelle deuten Anzeichen darauf hin, dass Stakeholder-Theoretiker den Aspekt der Messspezifikation in der Vergangenheit ausser Acht gelassen haben. Daher thematisiert die vorliegende Dissertation die Messspezifikation der zwei entwickelten Messmodelle und transferiert den aktuellen Stand der Forschung zur Indexkonstruktion in die empirische Stakeholder-Literatur. Betreffend der Abstraktionsebene beziehen sich die Indikatoren bestehender Messmodelle im Allgemeinen auf *alle* Stakeholder einer Organisation zusammengefasst und befragen Untersuchungssubjekte daher zu ihren Stakeholdern in aggregierter Form. Dagegen fokussieren die beiden Indizes dieser Dissertation die Interaktion zwischen einer fokalen Organisation und *einer* Einzelperson als Stakeholder, um die Verschiedenheit und Vielfalt unterschiedlicher Stakeholder-Interaktionen einer Organisation zu berücksichtigen.

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1 General Introduction

1.1 Problem Statement

Stakeholder theory posits that organizations interact with various stakeholders and create value mutually with them (Freeman, 1984; Post, Preston, & Sachs, 2002). By addressing this interaction, stakeholder theorists have influenced management research and practice over the past decades (Barney, 2018; Laplume, Sonpar, & Litz, 2008; Tantalo & Priem, 2016). In research, the stakeholder literature has contributed to fields such as strategic management by showing that management is essentially the reconciliation of stakeholder demands and the coordination of their contributions to value creation (Freeman, Harrison, & Wicks, 2007; Jones, Harrison, & Felps, 2018). In practice, stakeholder management has risen in prominence in light of recent corporate scandals, ethically controversial behavior, and increasing calls for more social responsibility of organizations and especially corporations (Freeman, Harrison, Wicks, Parmar, & de Colle, 2010).

A driving factor of stakeholder theory's development in academia has been the growing stream of empirical research that has followed groundbreaking conceptual works such as Freeman's (1984) classic "Strategic Management: A Stakeholder Approach." The quantitative branch of stakeholder research has mostly focused on testing the premise of instrumental stakeholder theory that the stakeholder orientation of an organization has a positive influence on its financial performance (e.g., Ayuso, Rodriguez, Garcia-Castro, & Arino, 2014; Berman, Wicks, Kotha, & Jones, 1999; Hillman & Keim, 2001). To test instrumental stakeholder theory and any theory in general, it is necessary beforehand to develop and validate models that operationalize the constructs contained in the theory (Anderson & Gerbing, 1982; Jarvis, MacKenzie, & Podsakoff, 2003). Such so-called measurement models[1] specify the operationalization of the constructs and are to be differentiated from

[1] In this work, we use the terms *measurement model* and *measure* (noun) interchangeably.

structural models in which researchers test the theory-based relationships between constructs (Bagozzi, 1981). If a literature lacks measurement models of its constructs or the measurement models are flawed, scientifically sound theory testing will not be possible. In this context, this dissertation identifies and tackles three problematic issues with respect to quantitative measurement in stakeholder theory. First, stakeholder theory lacks validated models of some elementary concepts such as stakeholder engagement or types of organization-stakeholder relationships (Jones et al., 2018; Plaza-Úbeda, de Burgos-Jiménez, & Carmona-Moreno, 2010). Second, in the case of the few existing measurement models in stakeholder theory, researchers have not explicitly addressed the issue of correct specification (e.g., Agudo-Valiente, Garces-Ayerbe, & Salvador-Figueras, 2015; Kaptein, 2008; Mazur & Pisarski, 2015; Plaza-Úbeda et al., 2010). Third, the existing measurement models in stakeholder theory tend to aggregate all stakeholders of an organization or its stakeholders of a particular type (e.g., Agudo-Valiente et al., 2015; Kaptein, 2008; Mazur & Pisarski, 2015; Plaza-Úbeda et al., 2010).

With regard to the first problem, two central research topics in stakeholder theory are stakeholder engagement and stakeholder relationships (Freeman et al., 2010; Freeman, Kujala, & Sachs, 2017). Stakeholder engagement commonly refers to "practices the organization undertakes to involve stakeholders in a positive manner in organizational activities" (Greenwood, 2007, p. 317-318) and has become an important subject of stakeholder research in recent years (Freeman et al., 2017; Kujala & Sachs, 2019). There is a second growing stream of literature on the issue of stakeholder relationships, which studies the bilateral interactions between organizations and stakeholders in order to understand the content and inner workings of those relationships (Bosse & Coughlan, 2016; Bridoux & Stoelhorst, 2014, 2016). Conceptual works in stakeholder theorists point to the influence of stakeholder engagement and stakeholder relationship types on outcomes such as the contribution of stakeholders to value creation and the competitive advantage of organizations (Bridoux & Stoelhorst, 2016; Jones et al., 2018). To test such propositions, it is of crucial importance to operationalize stakeholder engagement and stakeholder

relationship types in the form of assessed and validated measurement models whereof however only few exist. As an example of lacking assessment and validation, Agudo-Valiente et al. (2015) develop a measurement model that contains communication channels through which organizations engage with their stakeholders. Unfortunately, the authors do not evaluate this measurement model in terms of its validity. In the case of stakeholder relationship measures, Mazur's and Pisarski's (2015) propose two scales – one for internal and one for external stakeholders – which address aspects such as relationship development, quality, and effectiveness. While those scales undergo standard validation, they suffer from the two following problematic issues of quantitative measurement in stakeholder theory.

With regard to the second aforementioned problem, scholars in stakeholder theory have not explicitly addressed the issue of correct specification when developing existing measurement models (e.g., Agudo-Valiente et al., 2015; Kaptein, 2008; Mazur & Pisarski, 2015; Plaza-Úbeda et al., 2010). Measurement specification refers to determining the relationship between a latent construct and its manifest indicators[2] (Jarvis et al., 2003): if the indicators are manifestations of the underlying construct, researchers call the measurement model a reflective measure or scale. By contrast, if the items are defining characteristics of the latent construct, the measurement model is called a formative measure or index. Reflective and formative measures differ in their mathematical properties and in the criteria based on which scholars evaluate their validity (Coltman, Devinney, Midgley, & Venaik, 2008; Diamantopoulos & Winklhofer, 2001; Jarvis et al., 2003). Similar to other social scientists, stakeholder theorists focused on developing reflective measures and apparently disregarded formative measures as a modelling option (e.g., Agudo-Valiente et al., 2015; Kaptein, 2008; Mazur & Pisarski, 2015; Plaza-Úbeda et al., 2010). If researchers misspecify a measurement model – e.g., as a scale, while it should be an index – the measure does not correspond to its underlying construct

[2] In this work, we use the terms *item* and *indicator* interchangeably.

and therefore provides misleading conclusions in theory testing. As an example of a such case in the stakeholder engagement literature, Agudo-Valiente et al.'s (2015) measurement model contains four dimensions that represent communication channels with a particular stakeholder type and therefore form and define the latent construct (communication with all stakeholders). Although the correct specification would thus be formative, the authors specify the measure as a scale. In the case of their measure on stakeholder relationships, Mazur and Pisarski (2015) argue that relationship development, quality, and effectiveness are the three defining elements of the latent construct (the relationship as a whole), which also indicates a formative measure (Diamantopoulos & Winklhofer, 2001; Hair, Hult, Ringle, & Sarstedt, 2017). Nevertheless, the authors specify the three dimensions as reflective factors in their measurement model.

With regard to the third stated-above problem, the existing measures in stakeholder theory share one major shortcoming concerning their level of abstraction. On the side of stakeholders, stakeholder theorists commonly distinguish between three levels of abstraction: individual stakeholders (single persons), stakeholder groups, and all stakeholders as a whole (Bosse & Coughlan, 2016; Jones et al., 2018; Sluss & Ashforth, 2008).[3] In the stakeholder literature, existing measures refer to stakeholder groups or all stakeholders as if an organization engaged in the same way and had similar relationships with its various stakeholders (e.g., Agudo-Valiente et al., 2015; Kaptein, 2008; Mazur & Pisarski, 2015; Plaza-Úbeda et al., 2010). As an example of such a stakeholder engagement measure, Agudo-Valiente et al. (2015) have focused on operationalizing the engagement practices that an organization uses with different types of stakeholders (e.g., employees, customers or suppliers). Regarding stakeholder relationships, examples of such measurement models are Mazur's and Pisarski's (2015) scales that

[3] On the side of the focal organization, different levels of abstraction are also conceivable such as individual employees/managers, organizational units, or the organization as a whole. As stakeholder theory usually refers to the focal organization as a whole (Freeman et al., 2010), we choose this level of abstraction for our work.

differentiate between internal and external stakeholders. Proponents of such stakeholder aggregation argue that it is favorable in terms of measurement efficiency and avoids the difficulty of correctly disaggregating stakeholders, for example, to the level of individual stakeholders (Plaza-Úbeda et al., 2010). However, grouping together stakeholders of an organization according to types or all stakeholders as a whole in a single indicator neglects that an organization may engage differently with various stakeholders. Furthermore, such aggregation confounds the many different organizational stakeholder relationships, which tend to vary substantially in nature due to influencing factors such as trust, communication, and reciprocity (Bosse & Coughlan, 2016; Polonsky, Schuppisser, & Beldona, 2002). For instance, an organization might have a stakeholder relationship that is characterized by high trust and high commitment between both parties, whereas the very opposite may be the case in another stakeholder relationship of the same organization.

1.2 Research Questions

This dissertation aims to tackle the three problematic issues that we have outlined in the problem statement above. Consequently, the overall objective of the dissertation is to advance quantitative measurement in stakeholder theory. From a theoretical perspective, the focus of this work is on two central concepts of stakeholder theory, namely stakeholder engagement and stakeholder relationship types. With this theoretical focus, the main question (MQ) of the dissertation tackles the first above-mentioned problem concerning the lack of validated quantitative measures in stakeholder theory:

MQ How are stakeholder engagement and stakeholder relationship types to be measured?

To answer the main research question, it is necessary to address two sub-questions (SQ) in the process. Those two sub-questions refer to the other above-

mentioned problems, namely a measure's specification (reflective or formative) and its level of abstraction (aggregation or disaggregation of stakeholders):

SQ1 What is the correct specification of a measure of stakeholder engagement and of a measure of stakeholder relationship types?

SQ2 What is the appropriate abstraction level of a measure of stakeholder engagement and of a measure of stakeholder relationship types?

To answer the preceding research questions, this dissertation develops two quantitative measurement models: one operationalizes stakeholder engagement and the other operationalizes stakeholder relationship types. The remainder of this introduction first gives an overview of the following dissertation chapters. In this overview, we describe both measurement models and how we developed them. The final part of the introduction discusses the contributions of the dissertation to different streams of the stakeholder literature.

1.3 Dissertation Overview

In Chapter 2, we construct a measurement model that operationalizes the stakeholder engagement of an organization with an individual stakeholder (see Table 1). This measure consists of four dimensions containing a total of 23 manifest indicators that represent practices of stakeholder engagement. As the focal organization might use different practices with different individual stakeholders of the same type, group, or stakeholder organization, we formulate the items on a level of abstraction that refers to the organizational engagement with an individual stakeholder (i.e., single natural person). Further, we derive the dimensions of the measure from our definition of stakeholder engagement that contains the elements of (1) informing a stakeholder, (2) consulting a stakeholder, (3) dialoguing with a stakeholder, and (4) making joint

	An Index of Stakeholder Engagement (Chapter 2)	**An Index of Stakeholder Relationship Types (Chapter 3)**
Theoretical Background	Stakeholder engagement literature	▪ Stakeholder relationship literature ▪ Relational models theory (Fiske, 1991, 1992)
Dimensions	(1) Inform stakeholder (2) Consult stakeholder (3) Dialogue with stakeholder (4) Make joint decisions with stakeholder	(1) Communal sharing (2) Equality matching (3) Authority ranking (4) Market pricing
Indicators	23 indicators representing organizational practices of stakeholder engagement in the four dimensions	16 indicators: four per dimension about (a) exchange and distribution of resources, (b) morals, (c) decision-making, (d) social influence and identity
Reason for Specification as Index	▪ Indicators form dimensions of stakeholder engagement ▪ Dimensions represent defining characteristics of stakeholder engagement	▪ Indicators are characteristics of relational models ▪ Combination of relational models defines overall relationship type
Level of Abstraction	Engagement of an organization with an individual stakeholder	Relationship type between an organization and an individual stakeholder
Conducted Empirical Studies	▪ Expert interviews ▪ Key informant survey ▪ Employee survey	▪ Key informant survey ▪ Employee survey

Table 1: Overview of Developed Measures

decisions with a stakeholder. Since the indicators form the four dimensions, which in turn represent defining characteristics of the stakeholder engagement construct, we specify the measurement model as an index. The indicators of the index are based on a review of the literature on stakeholder engagement. The empirical part of index construction includes a qualitative and two quantitative studies. In the qualitative study, we further specify and validate the items of the index by means of expert interviews with stakeholder engagement practitioners. In the quantitative part of index construction, we conduct a key informant survey with stakeholder engagement managers and a survey with employees of organizations. The two studies serve the purpose of assessing the convergent validity of the index, potential collinearity between items, and the significance and relevance of each indicator.

In Chapter 3, we construct a measurement model that operationalizes the type of relationship between an organization and an individual stakeholder. We choose this level of abstraction on the side of the stakeholder because organizational relationships with different individual stakeholders may vary substantially in their nature because of influencing factors such as trust, communication, and reciprocity (Bosse & Coughlan, 2016; Polonsky et al., 2002). From a conceptual perspective, we base the measure on relational models theory by Fiske (1991, 1992), which postulates that individuals represent their social relationships mentally by means of four elementary models: communal sharing, equality matching, authority ranking, and market pricing. Those relational models are also applicable to stakeholder relationships (Bridoux & Stoelhorst, 2016; Jones et al., 2018) and represent the four measurement model dimensions that in turn each contain four indicators for a total of 16 indicators. To generate the items of the measure, we adapt a generic relationship scale by Haslam and Fiske (1999) to the context of the relationship between an organization and an individual stakeholder. The four indicators of each dimension refer to different relationship domains, namely (1) exchange and distribution of resources, (2) morals, (3) decision-making, (4) social influence and identity. We specify the measure as an index because the indicators of each relational model represent its defining characteristics and the four relational models constitute

the building blocks of the overall relationship type (Fiske, 1992; Jarvis et al., 2003). In the empirical part of index construction, we analyze the convergent validity, potential collinearity, and the significance and relevance of each item. For this purpose, we use the same two quantitative studies as for the assessment of the index of stakeholder engagement.

In Chapter 4, we conclude this dissertation with a general discussion of its main implications to theory and practice, its possible limitations, and potential avenues of future research. In this context, we point out that there is a number of minor repetitions and redundancies in the course of the four chapters. That is due to the fact that the two main chapters address different topics and can also be regarded separately and independently of each other. For this reason, we expand on some aspects and issues in multiple sections of this work in order to remind the reader of some important considerations over the course of the present dissertation.

1.4 Contributions

By addressing the three outlined problematic issues of quantitative measurement in stakeholder research, we contribute to the following three streams of stakeholder theory: the stakeholder engagement literature, the relational view of stakeholder theory, and the microfoundations of stakeholder theory.

The literature on stakeholder engagement focuses on how businesses and other organizations apply stakeholder theory in practice and get involved with their stakeholders (Freeman et al., 2010; Kujala & Sachs, 2019; Post et al., 2002). This literature stream marks a shift in stakeholder theory from an initial firm-centric perspective (Freeman, 1984) to a focus on interaction, collaboration, and cooperation with stakeholders (Andriof & Waddock, 2002; Morsing & Schultz, 2006). At the same time, stakeholder engagement is an ambiguous and equivocal term in the literature by which scholars refer to many different issues (Greenwood, 2007). For instance, Kujala and Sachs (2019) propose that stakeholder engagement includes learning with and from stakeholders, examining stakeholder relations, and

communicating with stakeholders. As another example, Noland and Phillips (2010, p. 40) refer to stakeholder engagement as a "type of interaction that involves, at minimum, recognition and respect of common humanity and the ways in which the actions of each may affect the other."

We contribute to this literature by constructing an index that operationalizes the engagement of an organization with an individual stakeholder. With this index, we make stakeholder engagement measurable for researchers and practitioners in a valid and rigorous manner. We advance quantitative research on stakeholder engagement by drawing attention to measurement specification – specifically to formative measurement – and to the evaluation of formative models, which has progressed considerably in recent years (Hair, Hult, Ringle, & Sarstedt, 2017; Hair, Sarstedt, Ringle, & Gudergan, 2018). Researchers may utilize the index in future empirical works and assess the theorized relationship between stakeholder engagement and related constructs, for example, the competitive advantage of an organization (Freeman, Martin, & Parmar, 2007; Walsh, 2005). Additionally, we critically review the various definitions of stakeholder engagement in the literature and consolidate them in a single definition. The purpose of this consolidation is to specify and clarify the construct for our works and future research. Last but not least, we provide evidence that the level of stakeholder engagement is linked to the initiative of an individual stakeholder towards the focal organization. Specifically, a stakeholder shows significantly more initiative if the organization engages highly rather than to a medium or low degree.

The relational view of stakeholder theory focuses on the relationships between organizations and their stakeholders as the main unit of analysis in stakeholder research. This perspective emphasizes that long-lasting relationships form the basis for mutual value creation between organizations and stakeholders (Freeman, Wicks, & Parmar, 2004; Sachs & Rühli, 2011). So far, a relatively small body of the stakeholder literature centers on the relational view but this stream of research has shown noticeable growth in recent years (e.g., Bosse & Coughlan, 2016; Bridoux & Stoelhorst, 2014, 2016; Jones et al., 2018). Research on the content and nature of

stakeholder relationships has the potential to further explain how organizations gain competitive advantage in the market and improve their financial performance (Jones, 2011). Furthermore, a relational view of stakeholder theory may give an explanation about stakeholder behavior that does not correspond with the conventional stakeholder literature (Bridoux & Stoelhorst, 2014).

We contribute to the relational view of stakeholder theory with our newly constructed index and an elaboration of stakeholder relationship types on the basis of relational models theory (Fiske, 1991, 1992; Haslam, 1995; Haslam & Fiske, 1999). Rather than analyzing the stakeholder *or* the organization, our work focuses on their relationship and argues that an organization is likely to have different types of relationships with its various stakeholders (Bosse & Coughlan, 2016; McVea & Freeman, 2005; Polonsky et al., 2002). Following this argument, we construct an index that stakeholder theorists may use to investigate the theory-based links between relationship types and related constructs such as joint value creation (Bridoux & Stoelhorst, 2016) or competitive advantage (Jones et al., 2018). Additionally, we further establish relational models theory in the stakeholder literature as we demonstrate empirically that all four elementary models occur in relationships between an organization and an individual stakeholder. In other words, our results suggest that relational models theory is suitable and appropriate to analyze stakeholder relationships and can explain behavior and interaction in such relationships. Finally, we also show that the relationship type is related to the initiative of the individual stakeholder towards the focal organization. Specifically, organization-stakeholder relationships that are characterized by power imbalance and dependency exhibit less stakeholder initiative than other relationship types.

The microfoundations of stakeholder theory represent a rather recent development (e.g., Bosse & Coughlan, 2016; Bridoux & Stoelhorst, 2014, 2016), which originates from the microfoundations of strategy and organization research (Barney & Felin, 2013; Felin & Foss, 2005). In simple terms, microfoundations mean that the understanding of a macro-level, collective phenomenon requires the analysis of its micro-level, individual parts and their potential interaction (Felin,

Foss, Heimeriks, & Madsen, 2012). Stakeholder theorists traditionally focus on macro-level units of analysis: for example, organizations, stakeholders as an undifferentiated crowd, or stakeholder networks with many organizations and stakeholders. However, scholars increasingly take an individual-level approach in regards to stakeholders because individual stakeholders have their own particularities, motivations and orientations that go beyond the affiliation to a generic group (Bosse & Coughlan, 2016; Bridoux & Stoelhorst, 2014). For example, Bridoux and Stoelhorst (2014) argue that "reciprocating" stakeholders care more about fairness than self-regarding stakeholders, which requires an organization to treat and engage with those two types of stakeholders differently.

We contribute to the microfoundations of stakeholder theory by addressing the problem of stakeholder aggregation in existing measurement models. As described above, many works in the stakeholder literature, especially measurement models, group (all) stakeholders of an organization together and thereby do not account for differences between them (Agudo-Valiente et al., 2015; Kaptein, 2008; Plaza-Úbeda et al., 2010). Previous microfoundational works in the stakeholder literature are purely conceptual (e.g., Bosse & Coughlan, 2016; Bosse et al., 2009; Bridoux & Stoelhorst, 2014, 2016) and do not elaborate on the implications for measurement. In contrast, we propose the microfoundations of measurement as one of the constructed indices targets the engagement of an organization with an individual stakeholder and the other index centers on the relationship between an organization and an individual stakeholder.[4] In other words, the items of the indices refer to the micro level on the side of stakeholders so that each data point describes an individual stakeholder (relationship). With our indices, we provide a new approach to measurement models in stakeholder theory and heed the call by Jones et al. (2018,

[4] This work deals with the microfoundations on the side of stakeholders but takes a macro-level perspective on the side of organizations. Although it would also be conceivable to analyze organizations on the micro level, we focus on the microfoundations on the side of stakeholders in order to emphasize the implications of this perspective.

p. 387) by stimulating empirical research that is “different from most of what currently exists in the literature.”

2 An Index of Stakeholder Engagement

2.1 Introduction

An organization engages with its stakeholders in a variety of ways (Greenwood, 2007). This stakeholder engagement can feature many advantages for the organization. For instance, if a an organization receives information from a stakeholder about her or his needs and wishes, this exchange of information creates knowledge for the organization (Harrison, Bosse, & Phillips, 2010; O'Sullivan & Dooley, 2009; Pfitzer, Bockstette, & Stamp, 2013). Knowledge on stakeholder preferences helps the organization to identify trends and opportunities in the market, to develop common goals with the stakeholder, and to create possibilities for collaboration (Andriof & Waddock, 2002; Prahalad & Ramaswamy, 2004; Svendsen, 1998). By such collaborations and interactions, the organization can develop a close relationship with the stakeholder in which the latter tends to contribute resources more willingly (Jones et al., 2018). As a result, stakeholder engagement offers the potential to reduce transaction costs (Jones, 1995; Rigling Gallagher & Gallagher, 2007) and to provide an organization with sustainable competitive advantage (Freeman, Martin, et al., 2007; Walsh, 2005).

As stakeholder engagement constitutes a crucial factor of organizational activity, its measurement is of paramount importance. Previous studies have operationalized stakeholder engagement by analyzing the practices of an organization geared towards *all* its stakeholders or different types of stakeholders such as employees, customers or shareholders (e.g., Agudo-Valiente et al., 2015; Provasnek, Schmid, & Steiner, 2016). In such studies, researchers implicitly assume that an organization uses practices of stakeholder engagement with respect to its stakeholders homogeneously: with either all stakeholders or none. We argue that this approach is problematic because it confounds the many interactions and relationships of an organization with its different stakeholders and neglects the fact that an organization applies different practices to various stakeholders. On that

account, we advocate a focus on the practices that an organization uses with respect to one individual stakeholder, who is a single person. We develop an index to measure stakeholder engagement in this perspective and thereby follow other researchers in their endeavor to ground stakeholder theory in more solid microfoundations by looking at individual stakeholders and organizational interactions with them (Bosse & Coughlan, 2016; Bosse et al., 2009; Bridoux & Stoelhorst, 2014, 2016; Harrison et al., 2010; Jones et al., 2018).

To lay the groundwork for constructing the proposed index, we first turn to the literature on stakeholder engagement and offer a definition of this concept in the context of our work. We also elaborate the relationship between stakeholder engagement and other constructs in management, primarily in stakeholder theory, and make the case for a new measure that is of formative nature, namely an index of stakeholder engagement. Afterwards, we construct this index by following conventional recommendations and guidelines, which consider the following five critical issues and evaluation criteria: content specification, indicator specification, convergent validity, collinearity, and indicator significance and relevance (Hair, Hult, Ringle, & Sarstedt, 2017; Hair et al., 2018). We specify the content of the index by referring to our definition of stakeholder engagement and the delineation from other related constructs. With regard to indicator specification, we conduct a literature review and expert interviews on the subject of stakeholder engagement practices, which represent the items of the index. Afterwards, we assess convergent validity, potential collinearity, and the significance and relevance of each indicator to the index. After constructing the index, we describe its characteristics, analyze empirical clusters of stakeholder engagement and their relationship with the initiative of the stakeholder towards the focal organization.

The focus of this work is the construction of an empirical index of stakeholder engagement. By developing this index, we contribute to stakeholder theory and particularly to the literature on stakeholder engagement in three ways. First, we offer a measure to operationalize stakeholder engagement, which other researchers can utilize and rely on in their empirical work. This index draws attention to measuring

the engagement between an organization and an individual stakeholder because previous studies have erroneously confounded the use of practices regarding the different stakeholders of an organization. With our approach, we contribute to the microfoundations of stakeholder theory by considering that an organization applies different practices to its various stakeholders. Second, we specify the meaning of stakeholder engagement against the backdrop of a multitude of diverging definitions in the stakeholder literature (see, e.g., Andriof & Waddock, 2002; Friedman & Miles, 2006; Greenwood, 2007) that we examine critically and consolidate in a definition based on four dimensions of stakeholder engagement (cf. Friedman & Miles, 2006; Gao & Zhang, 2001, 2006; Morsing & Schultz, 2006). Our hope and aim with this definition is to help clarifying the construct of stakeholder engagement. Third, our additional analysis with respect to the predictive validity of the index provides evidence that the level of stakeholder engagement is related to the initiative of the stakeholder towards the focal organization. Specifically, stakeholder initiative increases significantly in the case of high-level stakeholder engagement compared to medium- and low-level stakeholder engagement. This finding contributes to the literature on instrumental stakeholder theory, which investigates the organizational performance consequences of stakeholder orientation and stakeholder relationships (Hillman & Keim, 2001; Jones, 1995; Jones et al., 2018).

2.2 Theoretical Background

2.2.1 Definition of Stakeholder Engagement

In the literature, the term *stakeholder engagement* came up in the early 2000s as part of a shift in perspective. In its early stage, stakeholder theory had a rather firm-centric perspective (Freeman, 1984), which focused mostly on how managers identify and prioritize stakeholders (Clarkson, 1995; Donaldson & Preston, 1995; Mitchell, Agle, & Wood, 1997). At a later stage, stakeholder theorists shifted the emphasis to the interaction between organizations and their stakeholders (Andriof &

Waddock, 2002; Morsing & Schultz, 2006). Fundamental to this interaction is the practices by which organizations engage with their stakeholders (Post et al., 2002; Sachs & Rühli, 2011). Although many scholars refer to the technical term of stakeholder engagement, there is no clear consensus about its meaning in the literature. One problem in this regard is that stakeholder theorists often do not provide any definition or explanation when they write about stakeholder engagement. Another problem lies in the fact that the existing definitions diverge – in some cases very strongly. As Greenwood (2007, p. 315) puts it, "engagement of stakeholders can mean many things to many people." Table 2 presents the range of definitions in a chronologically ordered list that is not exhaustive but shows how diverse the understandings of stakeholder engagement are in the literature.

Source	**Definition**
Andriof & Waddock, 2002	"trust-based collaborations between individuals and/or social institutions with different objectives that can only be achieved together"
O'Dwyer, 2005	"multitude of practices where organizations adopt a structured approach to engaging with stakeholders"
Thomson & Bebbington, 2005	"range of practices where organizations take a structured approach to consulting with potential stakeholders"
Amaeshi & Crane, 2006	"act of managing the relationship between the firm and different stakeholders in order to enhance the effectiveness of the firm's decisions and strategies"
Friedman & Miles, 2006	"the process of effectively eliciting stakeholder views on their relationship with the organization"
Greenwood, 2007	"practices the organization undertakes to involve stakeholders in a positive manner in organizational activities"
Sloan, 2009	"process of involving individuals and groups that either affect or are affected by the activities of the company"

Noland & Phillips, 2010	"type of interaction that involves […] recognition and respect of common humanity and the ways in which the actions of each may affect the other"
Manetti, 2011	"corporations involve their stakeholders in decision-making processes, making them participants in the business management, sharing information, dialoguing and creating a model of mutual responsibility"
Girard & Sobczak, 2012	"learning process, described as the link between a company and its stakeholders"
O'Riordan & Fairbrass, 2014	"process of establishing, developing and maintaining stakeholder relations"
Moratis & Brandt, 2017	"consultation process, which is strategic and aims to inform the firm about the stakeholders' interests, expectations, and concerns and allows stakeholders to participate in firms' decision-making processes"
Passetti, Bianchi, Battaglia, & Frey, 2017	"corporate social responsibility policy which may be used by an organization to engage stakeholders to (un)define and (un)share solutions and outcomes"

Table 2: What Is Stakeholder Engagement? A Chronology

As shown in the table, most definitions of stakeholder engagement share a focus on practices or processes although they almost without exception do not include concrete practices. In this work, we consider practices as specific and to a degree institutionalized methods, routines, and procedures (Fenton & Langley, 2011; Whittington, 2006) that organizations use to engage with a stakeholder. In this respect, the definitions remain at a vague level by describing themes such as "practices where organizations adopt a structured approach to engaging with stakeholders" (O'Dwyer, 2005) or "process of establishing, developing and maintaining stakeholder relations" (O'Riordan & Fairbrass, 2014).

The definitions in the list above differ mainly in whether they take a broad or narrow view of stakeholder engagement. An example for a broad view presents Greenwood's seminal article (2007, pp. 317-318): "practices the organization

undertakes to involve stakeholders in a positive manner in organizational activities." This definition aims at showing that stakeholder engagement happens in a broad range of organizational areas and activities such as corporate governance, human resource management, social accounting, and risk management (Greenwood, 2007). Similarly, Sloan (2009, p. 26) defines stakeholder engagement as: "the process of involving individuals and groups that either affect or are affected by the activities of the company." With this, Sloan incorporates Freeman's classic definition of stakeholders: "any group or individual who can affect or is affected by the achievement of the organization's objectives" (1984, p. 46). In the same way as Freeman's stakeholder definition is one of the broadest in the literature, Sloan (2009, p. 26) also indicates a very broad understanding of stakeholder engagement "in a variety of ways and from a variety of perspectives." Summing up, theorists with a broad view describe stakeholder engagement rather generally as involving stakeholders in organizational activities.

In a narrow view, scholars tend to stress specific aspects and elements of stakeholder engagement. For example, many definitions mention the element of consulting stakeholders (Friedman & Miles, 2006; Moratis & Brandt, 2017; Thomson & Bebbington, 2005). Moratis and Brandt (2017) point out that organizations use practices of stakeholder engagement to consult stakeholders about their interests, expectations, and concerns. Additionally, their definition includes another potential element of stakeholder engagement: "allow[s] stakeholders to participate in firms' decision-making processes" (Moratis & Brandt, 2017, p. 314). Other scholars share this view as, for instance, Manetti (2011, p. 111), who repeats: "involve their stakeholders in decision-making processes." According to Manetti's definition, stakeholder engagement also features the two further elements of sharing information and dialoguing with stakeholders. The four mentioned elements of stakeholder engagement – informing, consulting, dialoguing with, and involving stakeholders in decision-making – appear repeatedly in the literature. Apart from them, some definitions singularly mention other aspects or elements of stakeholder engagement such as learning (Girard & Sobczak, 2012).

When we contrast the broad and narrow view of stakeholder engagement, the broad view starts from the premise that virtually every contact or action between an organization and its stakeholders qualifies as stakeholder engagement. This view seems bewilderingly complex and overwhelming because it does not define what stakeholder engagement specifically means. Especially if we consider the literal meaning of engagement, the broad view appears rather extensive. By dictionary definition, "to engage with somebody" signifies to get involved and associate with a person (Longman Dictionary of Contemporary English, 2018; Macmillan Dictionary, 2018; Merriam–Webster, 2018). Against this background, it seems plausible that not every contact or action between an organization and a stakeholder ought to be considered stakeholder engagement. To narrow down the view appropriately, the literature contains a number of models that provide useful indication of defining criteria for stakeholder engagement (Friedman & Miles, 2006; Gao & Zhang, 2001, 2006; Morsing & Schultz, 2006). These models contain different dimensions and elements of stakeholder engagement as illustrated in Table 3.

Morsing and Schultz (2006) propose a three-dimensional model that comprises stakeholder communication strategies. In the first dimension, the "stakeholder information strategy," an organization informs stakeholders about decisions and actions that are relevant to them. In the second dimension, the "stakeholder response strategy," stakeholders answer to corporate actions and the organization integrates their feedback. In the third dimension, the "stakeholder involvement strategy," there is frequent, systematic and pro-active communication between the organization and stakeholders. Additionally, the organization involves stakeholders in its actions.

In their papers on social auditing, Gao and Zhang (2001, 2006) argue for a similar but slightly different four-dimensional model. The first dimension, the "passive" dimension, features provision of information to stakeholders by means of reports or other documents (cf. Morsing & Schultz, 2006). The second dimension, the "listening" dimension, includes consultation of stakeholders via, for instance, suggestion boxes, questionnaires and interviews. The third dimension, the "two-way

Dimension \ Authors	Morsing & Schultz (2006)	Gao & Zhang (2001, 2006)	Friedman & Miles (2006)
Make Joint Decisions with Stakeholder	Stakeholder involvement strategy	Management is driven by stakeholder (proactive)	Stakeholder control Delegated power Partnership Collaboration Involvement
Dialogue with Stakeholder	Stakeholder response strategy	Stakeholder engages in dialogue with organization (two-way process)	Negotiation
Consult Stakeholder		Stakeholder is consulted (listening)	Consultation Placation Explaining
Inform Stakeholder	Stakeholder information strategy	Stakeholder is merely given information (passive)	Informing Therapy Manipulation

Table 3: Models of Stakeholder Engagement

process" dimension, is characterized by both-sided communication between the organization and its stakeholders. Thus, Gao and Zhang divide Morsing's and

Schultz's second dimension, the stakeholder response strategy, into two separate dimensions. In Gao's and Zhang's fourth dimension, the "proactive" dimension, stakeholder have the opportunity to influence management decisions, for example, by being part of the management board. This dimension corresponds to Morsing's and Schultz's third dimension, the stakeholder involvement strategy.

Friedman and Miles (2006) propose yet another model of stakeholder engagement that comprises 12 dimensions and is based on Arnstein's (1969) ladder of public involvement in policy creation. In lower dimensions of their model, an organization informs a stakeholder in order to be open and transparent (cf. first dimension, Gao & Zhang, 2001, 2006; Morsing & Schultz, 2006). In medium dimensions, the organization asks the stakeholder for opinions and advice but there is no assurance that the stakeholder's input has any influence on the organization (cf. Morsing & Schultz, 2006). In high dimensions, an organization involves a stakeholder in decision-making processes and decides jointly with the stakeholder. Friedman and Miles argue that the engagement level of a given stakeholder relationship depends on many factors (e.g., relationship status/duration) and may change over time.

The three described models of stakeholder engagement share a common structure of dimensions. One dimension in all three models is about informing a stakeholder, whereas another dimension addresses how an organization consults a stakeholder. In the third dimension, an organization dialogues with a stakeholder and the fourth dimension contains joint decision-making with a stakeholder. Strikingly, the dimensions of these models share the same elements as the above-mentioned definitions of the narrow view (cf. Manetti, 2011; Moratis & Brandt, 2017; Thomson & Bebbington, 2005). This congruence presents strong evidence that these elements portray valid and justifiable selection criteria for a narrow view of stakeholder engagement. Hence, we define stakeholder engagement as the organizational use of practices to (1) inform a stakeholder, (2) consult a stakeholder, (3) dialogue with a stakeholder, or (4) make joint decisions with a stakeholder. For the sake of clarity in the following, we refer to these elements as the dimensions of stakeholder

engagement. We do not mean to imply that these dimensions are ends in themselves: an organization does not merely use a practice to inform or consult a stakeholder but may have various motivations, reasons, and purposes for informing or consulting. However, this work focuses on the dimensions and practices of stakeholder engagement rather than those other factors that are likely to vary depending on the issue and context in which an organization uses a given practice. After defining stakeholder engagement for the purpose of this work, we broaden the conceptual perspective to delineate stakeholder engagement from other related concepts.

2.2.2 Delineation from Related Constructs

First, it is advisable to distinguish stakeholder engagement from other engagement concepts, such as customer engagement in marketing theory (Brodie, Hollebeek, Jurić, & Ilić, 2011; Vivek, Beatty, & Morgan, 2012) and employee engagement in organizational psychology and human resource management (Macey & Schneider, 2008; Saks, 2006). Second, we work out the relationship between stakeholder engagement and other concepts in stakeholder theory, namely stakeholder management (Freeman, 1984) and stakeholder integration (Heugens, Van Den Bosch, & Van Riel, 2002; Plaza-Úbeda et al., 2010).

Scholars have applied the concept of engagement to different stakeholder types, such as customers and employees. In the corresponding literatures, for example, marketing theory or organizational psychology, there is a comparable debate about the definition of customer engagement and employee engagement as in the stakeholder literature about stakeholder engagement. For instance, Brodie et al. (2011) define customer engagement as a certain psychological state of a customer, whereas Vivek et al. (2012) emphasize the behavioral aspect of a customer's participation. Similarly, Macey and Schneider (2008) argue that there exists confusion between employee engagement and other concepts like involvement, commitment, or motivation of employees. In the same vein, employee engagement is distinct from the trust that an employee has in an organization (Searle, Weibel, & Den Hartog, 2011). Overall, the definitions of customer engagement and employee

engagement have one aspect in common, which differentiates them from stakeholder engagement: their unit of analysis is the stakeholder, meaning that they describe a state, trait, or behavior of the stakeholder. In other words, customer engagement and employee engagement refer to the engagement *of the stakeholder*. In contrast, stakeholder engagement focuses on organizational practices and with that on the interaction between the organization and the stakeholder. Thus, stakeholder engagement refers to the organizational engagement *with the stakeholder*. As outlined above, an organization can have various motivations, reasons, and purposes for engaging with a stakeholder (e.g., see definitions by Andriof & Waddock, 2002; Passetti et al., 2017), which vary depending on the concrete use of stakeholder engagement. Stakeholder engagement differs from customer or employee engagement in terms of directionality ("of the stakeholder" versus "with the stakeholder") rather than in terms of the motivation, reason, or purpose of engagement.

In the stakeholder literature, the concept of stakeholder management traces back to the beginnings of stakeholder theory when the latter had a rather firm-centric perspective (Freeman, 1984). Therefore, the main elements of stakeholder management commonly constitute the identification and prioritization of stakeholders (Clarkson, 1995; Donaldson & Preston, 1995; Mitchell et al., 1997). Techniques or practices to identify and prioritize stakeholders can be, for instance, stakeholder analysis (mapping) and issue analysis (Brugha & Varvasovszky, 2000; Svendsen, 1998).[5] When organizations manage their stakeholders, they "take steps to defend themselves from the demands of stakeholders" (Svendsen, 1998, p. 3) as stakeholder management "implies that the firm's interests supersedes their stakeholders which is not the case" (Polonsky et al., 2002, p. 113). Thus, stakeholder management is inherently unilateral. In contrast, stakeholder engagement represents an analytical shift in perspective, which emphasizes the interaction between organizations and their stakeholders (Andriof & Waddock, 2002; Morsing &

[5] For a comprehensive literature review on stakeholder analysis, see Brugha and Varvasovszky (2000).

Schultz, 2006). Accordingly, all four dimensions of stakeholder engagement contain an element of bilateralism between an organization and a stakeholder. When an organization engages with a stakeholder, it gets involved and associates with that stakeholder.

Similar to stakeholder engagement, the concept of stakeholder integration acknowledges the shift from a firm-centric perspective to an interaction- or relationship- centric perspective (Heugens et al., 2002; Plaza-Úbeda et al., 2010). Plaza-Úbeda et al. (2010, p. 419) define stakeholder integration as "the ability to establish positive collaborative relationships with a wide variety of stakeholders." As a strategic capability, stakeholder integration may contain highly diverse elements: Heugens et al. (2002) propose that buffering, co-optation, mutual learning, and meta-problem solving are the four mechanisms of stakeholder integration. By contrast, Plaza-Úbeda et al. (2010) develop a measurement model of stakeholder integration with the three dimensions knowledge, interaction, and adaptational behavior. The authors also delineate some tools or practices – "dialogue, consults, reports" (p. 422) – that may lead to stakeholder integration (see Figure 1). As these tools or practices are highly congruent with the dimensions of stakeholder engagement, we propose to conceptualize stakeholder integration as a consequence of stakeholder engagement. In other words, the organizational practices of stakeholder engagement may result in the strategic capability of stakeholder integration. In this context, stakeholder integration can be understood as one of the above-mentioned potential motivations or purposes of stakeholder engagement. As another difference, Plaza-Úbeda et al. (2010) argue that stakeholder integration is an aggregate concept, which groups *all* stakeholders together and does not allow any inference about individual organization-stakeholder relationships. By contrast, stakeholder engagement may conceptually refer to the use of organizational practices with respect to not only the aggregate level of stakeholders but also *one* stakeholder in particular. In fact, our work focuses on the organizational engagement with one individual stakeholder. In the following, we elaborate on this aspect in a

broader, methodological perspective and the resultant need for a new measure in stakeholder theory.

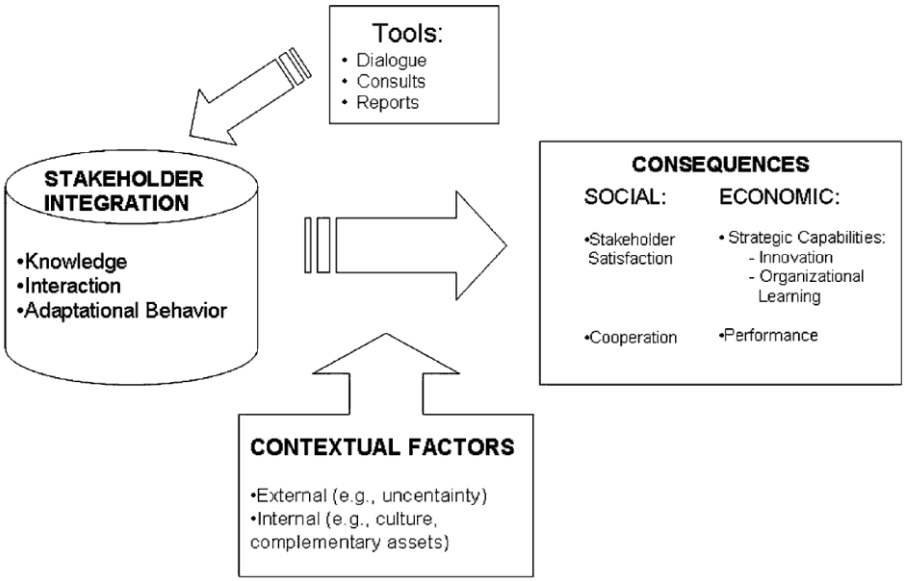


Figure 1: Contextual Factors, Tools, and Consequences of Stakeholder Integration (Source: Plaza-Úbeda et al., 2010)

2.2.3 The Need for a New Measure

In the past, most works on stakeholder engagement have analyzed the practices that an organization uses with *all* its stakeholders or different types of stakeholder such as customers or employees (e.g., Agudo-Valiente et al., 2015; Provasnek et al., 2016). In their study, Agudo-Valiente et al. (2015) investigated the effect of organizations' communication with stakeholders on their corporate social performance (CSP). The authors asked respondents to indicate the communication practices that their organization uses with various types of stakeholders (shareholders, employees, customers, suppliers, and society). Other studies on

stakeholder engagement use data from secondary sources such as corporate sustainability databases by social rating agencies like MSCI ESG Research, RobecoSAM, or Thomson Reuters (e.g., Ayuso et al., 2014; Chang & Chang, 2015). As an example, Ayuso et al. (2014) take this kind of data to analyze the relationship between engagement practices and firm financial performance. Also studies that use corporate disclosures in the form of sustainability reports tend to group stakeholder together (e.g., Habisch, Patelli, Pedrini, & Schwartz, 2011; Moratis & Brandt, 2017). In their study, Habisch et al. (2011) compare stakeholder engagement practices of larger organizations in Germany, Italy, and the USA with respect to different stakeholder types, in this case: communities, customers, employees, shareholders, and suppliers.

We argue that the analysis of stakeholder engagement and its practices in terms of an organizational relationship with all stakeholders or all types of stakeholders is problematic. This unit of observation and analysis confounds many stakeholder interactions of an organization and neglects that organizations de facto use different practices with their various stakeholders. For example, an organization might engage with one stakeholder by means of practice A but with another stakeholder by use of practice B. In the interaction with a third stakeholder, the organization employs both practices A and B. When this organization is asked about the practices of stakeholder engagement that it uses on an aggregated level of stakeholders (or stakeholder types), what should it answer? Both practices A and B? None of them? Due to this aggregation problem, we advocate data collection and analysis of the engagement between an organization and an individual stakeholder, which means a person who acts on one's own behalf or in a boundary-spanning role representing a stakeholder group or organization. We focus on individual stakeholders since an organization in effect engages with individuals: it is always people who receive information, are being consulted, dialogue and make joint decisions with the focal organization. In constellations between organizations, the focal organization is likely to deal with various members of the other organization (stakeholder organization) and to vary in the use of practices with those different members. In fact, we recognize those

members as individual stakeholders in their boundary-spanning role, in which they represent the stakeholder organization. Additionally, we point out that an organization obviously does not engage with all its stakeholders but rather with a subset that is determined by stakeholders' salience to managers of the organization (Mitchell et al., 1997). Our work refers to this subset of stakeholders on the level of individuals.

By taking a different perspective on the practices of stakeholder engagement than previous works, we heed the call to take the microfoundations of strategy and organization research into account (Barney & Felin, 2013; Felin & Foss, 2005). In the context of stakeholder theory, microfoundations imply a focus on individual stakeholders because they constitute the lowest level of abstraction in this literature and therefore provide a natural starting point for analysis. The recent stakeholder literature on microfoundations (e.g., Bosse & Coughlan, 2016; Bosse et al., 2009; Bridoux & Stoelhorst, 2014, 2016) mostly focuses on the features and preferences of individual stakeholders. For instance, Bridoux and Stoelhorst (2014) question the assumption that all stakeholders care about fairness and propose that preferences for fairness depend on whether the stakeholder is a so-called "reciprocator" or a self-regarding stakeholder, which has implications for the appropriate approach to managing the respective stakeholder relationship. However, stakeholder theorists have not considered the microfoundations of the described aggregation problem that occurs because an organization uses different (combinations of) practices with respect to different individual stakeholders. To address this problem, we see the need for a new measure that operationalizes the engagement of an organization with an individual stakeholder.

In this work, we assume that the focal organization engages with a given individual stakeholder by means of one organizational representative or department. In other words, we argue that this organizational representative acts on behalf of the focal organization towards the respective stakeholder. Unquestionably, an individual stakeholder could associate with multiple members of the focal organization who use different practices with respect to the stakeholder. For the purpose of this work,

we assume that the focal organization is consistent in its engagement with a given stakeholder, which is in line with a large body of the stakeholder literature (e.g., Harrison et al., 2010; Jones, Felps, & Bigley, 2007; Jones et al., 2018). Therefore, we let future research address potential intra-organizational heterogeneity with respect to stakeholder engagement and focus on the heterogeneity of practices used with different individual stakeholders.

Before we develop our measure of stakeholder engagement, we turn to an issue that scholars often do not address explicitly when constructing new measures: measurement specification, which refers to the selected type of measurement model (Diamantopoulos & Winklhofer, 2001; Jarvis et al., 2003). Generally speaking, there are two options to model latent constructs as shown in Figure 2: reflective measurement and formative measurement (Coltman et al., 2008; Jarvis et al., 2003). Reflective measures – also called scales – assume that the latent construct (ξ) causes the scores of the individual items (X_i) or, in other words, the indicators reflect the latent construct (Cadogan, Souchon, & Procter, 2008; Diamantopoulos & Winklhofer, 2001). Vice versa, formative measures – also called indices – assume that items cause the score of the latent construct, which means that the indicators form the latent construct (Cadogan et al., 2008; Diamantopoulos & Winklhofer, 2001). Scholars ought to choose between the two measurement types depending on the underlying theory that specifies "the nature and direction of the relationship between [latent] constructs and measures [items]" (Edwards & Bagozzi, 2000, p. 156).[6] In the past, many social scientists did not necessarily make this consideration but mainly developed reflective measures, which led to a number of misspecified measurement models (Diamantopoulos & Winklhofer, 2001; Jarvis et al., 2003). However nowadays, formative measurement receives more and more attention in the

[6] Apart from theoretical arguments, the choice between reflective and formative measurement can also be based on confirmatory tetrad analysis (CTA), which empirically assesses the measurement mode of a construct (Gudergan, Ringle, Wende, & Will, 2008). However, a requirement of CTA is that the manifest indicators of a given latent construct must feature bivariate correlations that differ significantly from zero. Since the items in the Studies 1 and 2 do not meet this requirement (see Table 13 and Table 18), we cannot apply CTA in this case.

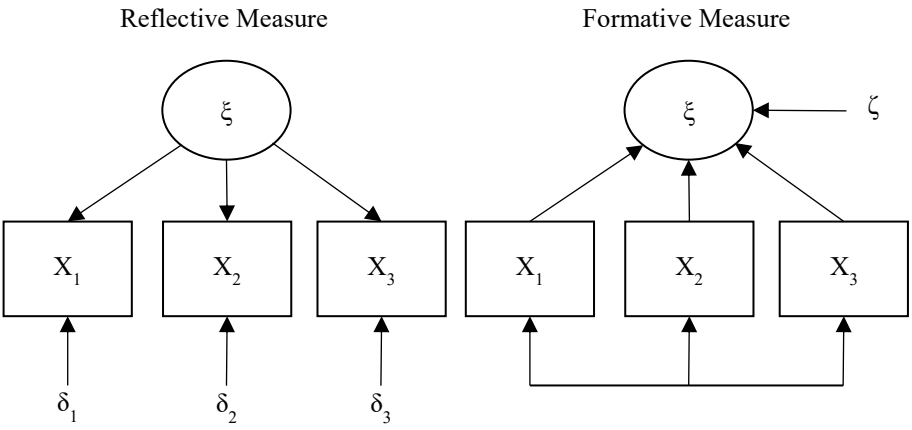


Figure 2: Reflective and Formative Measurement

(Source: Coltman et al., 2008)

modelling of latent constructs (Hair, Hult, Ringle, & Sarstedt, 2017; Hair et al., 2018).

Also in stakeholder theory, scholars have focused on developing reflective measures (e.g., Agudo-Valiente et al., 2015; Kaptein, 2008; Mazur & Pisarski, 2015; Plaza-Úbeda et al., 2010). When operationalizing stakeholder engagement, we consider an index more suitable than a scale for two reasons. First, it is more reasonable to theorize that the direction of causality goes from the indicators – the organizational practices – via the dimensions to the latent construct of stakeholder engagement than vice-versa. In the field, an organization uses certain practices that as a whole represent its engagement with a stakeholder, whereas stakeholder

engagement and its dimensions do not exist independently of the practices.[7] Second, the characteristics of the items represent another reason for the formative measurement of stakeholder engagement. In a reflective model, the indicators (and their dimensions) ought to correlate positively and significantly with one another due to the assumption of unidimensionality (Cadogan et al., 2008; Diamantopoulos & Siguaw, 2006). This means that items are interchangeable and including or excluding a specific indicator does not materially change the underlying construct (Coltman et al., 2008). However, stakeholder engagement is a multifaceted construct with a range of practices within different dimensions. The theory on stakeholder engagement indicates that organizations with a comprehensive approach use those practices to cover multiple dimensions and different aspects within each dimension (cf. Friedman & Miles, 2006; Gao & Zhang, 2001, 2006; Morsing & Schultz, 2006). From this follows that practices and dimensions are by no means interchangeable but rather complementary. In other words, an organization that addresses multiple dimensions increases its stakeholder engagement. In the same vein, a greater number and intensity (in the use) of practices within a single dimension signify more stakeholder engagement ceteris paribus (Agudo-Valiente et al., 2015). The resulting relevance of a certain variety of practices and dimensions is an argument for operationalizing stakeholder engagement as a formative measure. In the following, we construct this index of stakeholder engagement as a new measure in the stakeholder literature.

2.3 Index Construction

The literature on index construction reached an important milestone with the seminal work of Diamantopoulos and Winklhofer (2001) and made significant advances in recent years (Hair, Hult, Ringle, & Sarstedt, 2017; Hair et al., 2018). We followed

[7] This direction of causality represents another difference to customer and employee engagement, which often describe a state or attitude that causes the scores of the individual items (reflective measurement).

the recommendations and guidelines of this literature when constructing the stakeholder engagement index. More precisely, we tackled the following five critical issues and evaluation criteria in this process: (1) content specification, (2) indicator specification, (3) convergent validity, (4) collinearity, and (5) indicator significance and relevance. Table 4 outlines our process of index construction and the results regarding each critical issue and evaluation criterion.

2.3.1 Content Specification

As the first step of the index construction process, content specification refers to the definition and scope of the latent construct that the index is supposed to represent (Diamantopoulos & Winklhofer, 2001; Hair, Hult, Ringle, & Sarstedt, 2017). The adequateness and conclusiveness of this definition – in that it considers all relevant facets and dimensions of the construct – is vital to the validity of the measure. For the purpose of this index, we defined stakeholder engagement as the organizational use of practices in four dimensions: (1) informing a stakeholder, (2) consulting a stakeholder, (3) dialoguing with a stakeholder, or (4) making joint decisions with a stakeholder. This definition consolidates the most important elements of prior definitions in the literature (see Table 2) and of various models of stakeholder engagement (see Table 3). Additionally, we delineated stakeholder engagement from other related constructs, such as customer engagement and employee engagement as well as stakeholder management and stakeholder integration.

2.3.2 Indicator Specification

The second step of the index construction process is indicator specification, which refers to developing the manifest items of the index (Diamantopoulos & Winklhofer, 2001; Hair, Hult, Ringle, & Sarstedt, 2017). The indicators have to cover the entire content and scope of the latent construct that in this case includes the four dimensions of stakeholder engagement. If relevant aspects of the construct are missing or the researcher selects wrong indicators, the final measure will not properly represent the

(1) Content Specification	
Specifying content and scope of latent construct	✓ Definition of stakeholder engagement: organizational use of practices to (1) inform stakeholder, (2) consult stakeholder, (3) dialogue with stakeholder, (4) make joint decisions with stakeholder ✓ Delineation of related constructs: customer engagement, employee engagement, stakeholder management, stakeholder integration
(2) Indicator Specification	
Developing items	✓ 22 items generated after review of stakeholder engagement practices ✓ One additional item generated after expert interviews with 19 practitioners ✓ Screening by 18 students ✓ Scoring: seven-point Likert scale
(3) Convergent Validity	
Assessing convergence with reflective measures of the same construct	✓ Significant correlation coefficients with single-item measures
(4) Collinearity	
Inspecting possible predictive relationships between indicators and between lower-order constructs	✓ All correlations coefficients < 0.7 ✓ All variance inflation factors < 3
(5) Indicator Significance & Relevance	
Evaluating the relative and absolute contribution of each indicator and lower-order construct	✓ All indicators with significant outer weight or outer loading in at least one of two studies ✓ All lower-order constructs with significant outer weights in both studies

Table 4: Construction Process of Stakeholder Engagement Index

specified construct (Diamantopoulos & Winklhofer, 2001; Hair, Hult, Ringle, & Sarstedt, 2017). The set of initial indicators ought to be as inclusive as possible. For this purpose, it is advisable to start with a thorough literature review (Diamantopoulos & Winklhofer, 2001; Hair, Hult, Ringle, & Sarstedt, 2017).

To develop the indicators of our index, we first reviewed the literature on the practices of stakeholder engagement with the intent of having each index item represent one practice. As a result of this literature review, we generated four sets of items – one set for each dimension of stakeholder engagement. Afterwards, we conducted expert interviews with stakeholder engagement practitioners to explore further practices and to validate the results of our literature review. When generating the items, we followed established recommendations and guidelines on item wording, length, and lack of ambiguity (e.g., DeVellis, 2016). Additionally, 18 students reviewed the sets of items for clarity and comprehensibility (see Chapter 2.3.3.1). In terms of item scoring, we chose a seven-point Likert scale as it is a conventional format. In the following, we first describe the method and results of the literature review before detailing the expert interviews with stakeholder engagement practitioners.

2.3.2.1 Literature Review: Method

In our systematic literature review, we followed established procedures and selected publications according to predefined inclusion and exclusion criteria (Tranfield, Denyer, & Smart, 2003) (see Table 5). As a first step, we conducted an initial literature search in Business Source Complete and Web of Science and included studies according to three criteria: journals, search words, and timeframe. In terms of journals, our focus was on leading publication outlets in management and specialty journals devoted to business ethics and corporate social responsibility. For this reason, we inspected the "General Management, Ethics and Social Responsibility" section of the Academic Journal Guide (Cremer, Laing, Galliers, &

Step	Description	In- and Exclusion Criteria	Outcome
Step 1: Literature search	Initial literature search for publications on stakeholder engagement	▪ Databases: Business Source Complete and Web of Science ▪ Journal selection: 3 to 4* journals of General Management, Ethics and Social Responsibility according to Academic Journal Guide (2015) ▪ Search terms: "stakeholder" and "engagement" (title, abstract, keywords) ▪ Timeframe: until mid-2017	107 Articles
Step 2a: Screening publications	Screening of title, abstract and full-text of publications for relevance and understanding of stakeholder engagement	▪ Relevance: stakeholder engagement as focal topic of publication ▪ View of stakeholder engagement: publication addresses at least one of the four dimensions	57 Articles
Step 2b: Additional searches	Search by forward citation and for working papers for further relevant publications Plus: repeat step 2a for additional publications	▪ Article of forward citation search: Greenwood, 2007 ▪ Database for working papers: Darden School of Business Working Paper Series	Additional: 14 articles (sub-total of 71 articles)
Step 3: Qualitative content analysis	Coding of each publication and categorization of practices according to dimension	▪ Practice specifity: methods, procedures and mechanisms of stakeholder engagement ▪ Target audience: generic versus "stakeholder-specific" practices	35 Articles

Table 5: Steps of Literature Review

Kiem, 2015) and chose all journals with a quality level of 3 to 4*. This selection aimed at covering high-quality journals and keeping the amount of articles manageable for in-depth analysis. We included the following 22 publication outlets in the literature review:

- Academy of Management Journal,
- Academy of Management Perspectives,
- Academy of Management Review,
- Administrative Science Quarterly,
- British Journal of Management,
- Business & Society,
- Business Ethics Quarterly,
- Business Ethics: A European Review,
- California Management Review,
- Corporate Social Responsibility and Environmental Management,
- European Management Journal,
- Harvard Business Review,
- International Journal of Management Reviews,
- Journal of Business Ethics,
- Journal of Business Research,
- Journal of Management,
- Journal of Management Inquiry,
- Journal of Management Studies,
- MIT Sloan Management Review,
- Organization Science,
- Organization Studies, and
- Strategic Management Journal.

In terms of search words, we used the term *stakeholder* in combination with *engagement* to search the titles, abstracts, and keyword entries of publications. Thanks to truncation, our search also included variations of the search terms such as *stakeholders* and *engaged*. The timeframe of our search had no lower boundary and ended in mid-2017, when we conducted the search. After eliminating duplicates due to the use of two databases, the initial search generated 107 articles.

As a second step, we screened all publications and excluded studies based on two criteria: first, some articles incidentally mentioned the search words *stakeholder* and *engagement* in their titles, abstracts, or keywords yet did not actually investigate stakeholder engagement but some other topic. We excluded those publications because they were not relevant to our literature review. Second, studies had to correspond to the view (definition) of stakeholder engagement outlined above in the sense that an article addressed at least one dimension of stakeholder engagement. This screening narrowed down our sample to 57 publications. Afterwards, we identified the most cited article in the remaining sample, Greenwood's (2007) seminal work on stakeholder engagement, and conducted a forward citation search in the 22 selected journals to include other potentially relevant studies. In addition, we searched the Darden School of Business Working Paper Series[8] with the above-mentioned search words to find unpublished articles on the subject. Analogous to the studies of the initial search, we also screened the articles of the search by forward citation and in the working paper series according to the two exclusion criteria (missing relevance and different view/definition of stakeholder engagement). This process yielded additional 14 studies for a sub-total of 71 publications.

As a third step, we conducted qualitative content analysis (Mayring & Fenzl, 2014) and coded the following information of each publication: author(s), publication year, addressed dimension(s), specific practice(s), targeted stakeholder(s) and definition of stakeholder engagement (if available). A publication could mention multiple practices and, vice versa, more than one publication might

[8] URL: https://www.darden.virginia.edu/faculty-research/publications/

mention the same practice. The coding and analysis process led us to define two additional exclusion criteria: first, some studies addressed only a dimension of stakeholder engagement (e.g., inform a stakeholder) but did not specify any practices in this context. As stated above, we consider practices as specific and to a certain degree institutionalized methods, routines, and procedures (Fenton & Langley, 2011; Whittington, 2006) that organizations use within a given dimension of stakeholder engagement. Since practices represented the epistemological interest of our literature review, we excluded publications that did not mention any. Second, some studies of our literature search focused on practices that target one particular type of stakeholder (e.g., employees). However, our aim was to identify generic practices that organizations can use to engage with *any* stakeholder type. Therefore, we excluded practices that only apply to one specific type of stakeholder (e.g., employee trainings). In some cases, it was possible to transform "stakeholder-specific" practices into generic practices by generalizing the target audience. For instance, the literature refers to the practice of enabling whistleblowing typically in the context of employees, although it can hypothetically be directed at any type of stakeholder. In the case of such practices, we developed a generic version and included this practice in our literature review. As part of this third step, we eventually categorized all literature-based practices according to the four dimensions of stakeholder engagement. Our final review sample consisted of 35 publications (see Table 6) that included 22 stakeholder engagement practices.

2.3.2.2 Literature Review: Results

Inform Stakeholder. Practices that an organization uses to inform a stakeholder typically involve the dissemination of information on organizational activities, decisions, and intentions (Friedman & Miles, 2006; Gao & Zhang, 2001, 2006; Morsing & Schultz, 2006). Accordingly, such practices feature a strong emphasis on one-way communication from the organization to a stakeholder, whereas information flow in the other direction is less common or not possible due

Journal	Number of Articles
Business & Society	1
Business Ethics: A European Review	2
California Management Review	1
Corporate Social Responsibility and Environmental	8
Harvard Business Review	1
Journal of Business Ethics	18
Journal of Business Research	2
Journal of Management Studies	1
Organization Studies	1
TOTAL	**35**

Table 6: Journals With at Least One Article in the Literature Review

to the nature of the practice. An organization might have numerous reasons for informing a stakeholder, for instance, to gain support or because of a felt moral obligation to the stakeholder (Morsing & Schultz, 2006; Paine, 2003). In the literature, we identified seven practices that an organization may use to inform a stakeholder (see Table 7). First, an organization can publish information for the stakeholder in "old" media (Agudo-Valiente et al., 2015; Beelitz & Merkl-Davies, 2012). An example of this practice would be interviews in radio broadcasting, television or print media such as newspapers or magazines. Second, organizations issue several kinds of reports, for instance, on their progress and accomplishments regarding corporate social responsibility (CSR) and sustainability (e.g., Groves, Frater, Lee, & Stokes, 2011; Herremans, Nazari, & Mahmoudian, 2016; O'Dwyer, 2005; Prado-Lorenzo, Gallego-Alvarez, & Garcia-Sanchez, 2009; Reynolds & Yuthas, 2008; Romolini, Fissi, & Gori, 2014). Another example would be annual reports of organizations for their shareholders, investors and the general public.

Third, an organization may use its webpage to meet a stakeholder's need for information about specific products, projects and other news (Moratis & Brandt, 2017; O'Riordan & Fairbrass, 2014; Provasnek et al., 2016). Fourth, an organization can send information to a stakeholder in newsletters, nowadays mainly electronically via e-mail (Lane & Devin, 2018; Provasnek et al., 2016). Fifth, organizations offer help and information via hotlines that target either one type of stakeholder (e.g., customers) or all stakeholders together (Ayuso et al., 2014; Provasnek et al., 2016). Sixth, an organization may inform a stakeholder through conferences or similar events for a large audience of stakeholders (Bowen, Newenham-Kahindi, & Herremans, 2010; Habisch et al., 2011; Provasnek et al., 2016; Strand & Freeman, 2013). Examples of such events would be press conferences or open house days where an organization invites stakeholders, shows them around and explains its operations. Seventh, an organization can host presentations or talks specially geared to a target stakeholder or group of stakeholders (Beelitz & Merkl-Davies, 2012).

Consult Stakeholder. Practices that an organization uses to consult a stakeholder normally involve feedback on stakeholders' needs, satisfaction, and views (Friedman & Miles, 2006; Gao & Zhang, 2001, 2006; Morsing & Schultz, 2006). Therefore, communication and information flow mostly from the stakeholder to the organization. As for the potential underlying motives, an organization might consult a stakeholder to identify trends and opportunities in the market or to explore common goals with a stakeholder (Andriof & Waddock, 2002; Prahalad & Ramaswamy, 2004). In the literature, we identified six practices that an organization can use to consult a stakeholder (see Table 7). First, an organization may survey a stakeholder to learn about their needs and satisfaction (Agudo-Valiente et al., 2015; Ayuso et al., 2014; Moratis & Brandt, 2017; Strand & Freeman, 2013). Written surveys are typically of quantitative nature and comprise a structured questionnaire with predefined questions and answers. Second, an organization can consult a stakeholder on a given subject in a focus group with other stakeholders (Camillus, 2008; Habisch et al., 2011; Moratis & Brandt, 2017). In such a setting, selected stakeholders share their standpoints and attitudes about a topic in a group discussion.

Third, an organization might use physical and electronic suggestion boxes to collect ideas and complaints from a stakeholder (Agudo-Valiente et al., 2015). The advantage of such a mechanism is that a stakeholder can raise matters and concerns in confidentiality. Fourth, an organization can encourage a stakeholder to expose organizational wrongdoing or grievances by having a whistleblowing policy (Ayuso et al., 2014). Similar to a suggestions box, this kind of policy ensures anonymity to the whistleblower. Fifth, an organization may interview a stakeholder about personal information, matters or views (Habisch et al., 2011; Moratis & Brandt, 2017; Strand & Freeman, 2013). Unlike surveys, interviews are of qualitative nature and allow detailed exploration of stakeholders' perceptions (Friedman & Miles, 2006). Sixth, an organization can establish a so-called advisory panel or sounding board as a practice of stakeholder consultation (Moratis & Brandt, 2017). Such a panel or board usually consists of multiple stakeholders (or their representatives) and "affords a channel for organizations to obtain expert opinion, to keep abreast of developments, and to assess stakeholder opinion" (Friedman & Miles, 2006, p. 170).

Dimension	Practice	Source
Inform Stakeholder	The organization publishes tailored information for this stakeholder in "old" media (e.g., print, radio, or TV). (INFO1)	Agudo-Valiente et al., 2015 Beelitz & Merkl-Davies, 2012
	The organization issues reports with relevant content for this stakeholder (e.g., annual or sustainability reports). (INFO2)	Groves et al., 2011 Herremans et al., 2016 Hoang et al., 2016 Miralles-Quiros et al., 2017 O'Dwyer, 2005 Prado-Lorenzo et al., 2009 Reynolds & Yuthas, 2007 Romolini et al., 2014
	The organization uses its webpage to meet the informational need of this stakeholder. (INFO3)	Moratis & Brandt, 2017 O'Riordan & Fairbrass, 2014 Provasnek et al., 2016

	The organization sends customized newsletters to this stakeholder. (INFO4)	Lane & Devin, 2017 Provasnek et al., 2016
	The organization provides information to this stakeholder via a hotline. (INFO5)	Ayuso et al., 2014 Provasnek et al., 2016
	The organization informs this stakeholder through conferences or similar large events. (INFO6)	Bowen et al., 2010 Habisch et al., 2010 Provasnek et al., 2016 Strand & Freeman, 2013
	The organization hosts presentations or talks specially geared to this stakeholder. (INFO7)	Beelitz & Merkl-Davies, 2012
Consult Stakeholder	The organization conducts written surveys about this stakeholder's needs or satisfaction. (CONS1)	Agudo-Valiente et al., 2015 Ayuso et al., 2014 Moratis & Brandt, 2017 Strand & Freeman, 2013
	The organization investigates the attitudes of this stakeholder through group discussions with other stakeholders (so-called focus groups). (CONS2)	Camillus, 2008 Habisch et al., 2010 Moratis & Brandt, 2017
	The organization gathers ideas and complaints by this stakeholder via a physical or electronic suggestion box. (CONS3)	Agudo-Valiente et al., 2015
	The organization encourages this stakeholder to expose internal grievances or misconduct (so-called whistleblowing). (CONS4)	Ayuso et al., 2014
	The organization interviews this stakeholder about personal information, matters or views. (CONS5)	Habisch et al., 2010 Moratis & Brandt, 2017 Strand & Freeman, 2013
	The organization seeks advice by an advisory panel or sounding board of which this stakeholder is a member. (CONS6)	Moratis & Brandt, 2017

Dialogue with Stakeholder	The organization has periodic meetings with this stakeholder (e.g., in person or by telephone). (DIAL1)	Agudo-Valiente et al., 2015 Johansen, 2008 Klettner et al., 2014 Provasnek et al., 2017 Strand & Freeman, 2013
	The organization hosts forums to exchange ideas or opinions about a specific subject with this stakeholder. (DIAL2)	Agudo-Valiente et al., 2015 Bowen et al., 2010 Habisch et al., 2010 Strand & Freeman, 2013
	The organization communicates intensively with this stakeholder via social media (e.g., blogs or social networks). (DIAL3)	Castelló et al., 2016 Fieseler et al., 2010 Moratis & Brandt, 2017 Viglia et al., 2017
	The organization participates in round-table discussions that include this stakeholder and others. (DIAL4)	Schmitt, 2010 Sloan & Oliver, 2013
	The organization involves this stakeholder in innovation processes (e.g., idea generation). (DIAL5)	Herrera, 2015 Mount & Martinez, 2014
Make Joint Decisions with Stakeholder	The organization has partnerships or initiatives with this stakeholder. (MJD1)	Schouten & Remmé, 2006 Sloan & Oliver, 2013 Tracey et al., 2005
	The organization grants this stakeholder or a representative a say on governing or administrative bodies. (MJD2)	Agudo-Valiente et al., 2015 Johansen, 2008 Pirson & Turnbull, 2011 Shahzad et al., 2016
	The organization uses an impartial om-budsman or mediator to settle disputes with this stakeholder. (MJD3)	Ayuso et al., 2014 Dawkins, 2014
	The organization has this stakeholder review its reports (e.g., annual or sustainability reports) for correctness and completeness. (MJD4)	Manetti & Toccafondi, 2010 Moratis & Brandt, 2017

Table 7: Items of Stakeholder Engagement Index

Dialogue with Stakeholder. Practices that an organization uses to dialogue with a stakeholder usually involve a mutual, both-sided exchange with that stakeholder (Friedman & Miles, 2006; Gao & Zhang, 2001, 2006; Morsing & Schultz, 2006).

Consequently, two-way communication between the organization and the stakeholder characterizes such practices. The various possible reasons for dialogue practices include that an organization might want to establish collaboration with its key stakeholders (Sloan, 2009; Svendsen, 1998). In the literature, we identified five practices that an organization may use to dialogue with a stakeholder (see Table 7). First, the most basic and fundamental dialogue practice are periodic meetings with a stakeholder, for example, in person or by telephone (Agudo-Valiente et al., 2015; Johansen, 2008; Klettner, Clarke, & Boersma, 2014; Provasnek, Sentic, & Schmid, 2017; Strand & Freeman, 2013). The frequency of this practice can generally range anywhere between daily and weekly meetings (e.g., in projects) to annual general meetings with shareholders or other stakeholders. Second, an organization may host forums in which it exchanges ideas or opinions about a specific subject with stakeholders (Agudo-Valiente et al., 2015; Bowen et al., 2010; Habisch et al., 2011; Strand & Freeman, 2013). Such forums are events usually only open to specific stakeholder groups, for example, experts and opinion leaders and constitute a close dialogue between all involved parties. Third, the use of social media presents a frequent practice of organizations for dialogue with a stakeholder (Castelló, Etter, & Nielsen, 2016; Fieseler, Fleck, & Meckel, 2010; Moratis & Brandt, 2017; Viglia, Pera, & Bigné, 2018). As an umbrella term, social media includes but is not limited to open platforms and social networks like Twitter and Facebook (Castelló et al., 2016; Viglia et al., 2018), corporate blogs (Fieseler et al., 2010), and internet bulletin boards (Moratis & Brandt, 2017). In other words, all online practices and tools that enable an organization and a stakeholder to communicate bilaterally (two-way communication) fall into this category. Fourth, round-table discussions constitute a practice that serves the purpose of dialoguing with a stakeholder (Schmitt, 2010; Sloan & Oliver, 2013). In fact, round-table settings imply that that an organization is in talks with multiple stakeholders at the same time and place (metaphorically speaking, at the same table). Fifth, an organization may involve a stakeholder in different stages or processes of innovation, for example, idea generation, research and development, or commercialization (Herrera, 2015; Mount & Martinez, 2014).

In each innovation stage, active dialogue with the stakeholder allow the organization to understand the preferences of the stakeholder, develop superior value propositions, and establish acceptance for a new product (Herrera, 2015; Mount & Martinez, 2014).

Make Joint Decisions with Stakeholder. Practices that an organization uses to make decisions together with a stakeholder tend to involve a certain decision-making influence of the stakeholder (Friedman & Miles, 2006; Gao & Zhang, 2001, 2006; Morsing & Schultz, 2006). Thus, such practices refer to a context in which an organization and a stakeholder share some degree of power over an outcome. Potential motives for mutual decision-making with a stakeholder include gaining acceptance for solutions and choices, engaging with the stakeholder over common issues, and collaborating on specific projects (Friedman & Miles, 2006). In the literature, we identified four practices that an organization can use to make joint decisions with a stakeholder (see Table 7). First, an organization may enter partnerships or initiatives in which it works with one or multiple stakeholders from diverse sectors (Schmitt, 2010; Schouten & Remmé, 2006; Sloan & Oliver, 2013; Strand & Freeman, 2013; Tracey, Phillips, & Haugh, 2005). There are many terms that describe similar types of collaboration (partnerships, initiatives, alliances, joint ventures, etc.), which all feature joint decision-making processes between an organization and a stakeholder. Second, an organization can grant a stakeholder or a representative of a stakeholder a say on governing or administrative bodies such as the executive or supervisory boards (Agudo-Valiente et al., 2015; Johansen, 2008; Pirson & Turnbull, 2011; Shahzad, Rutherford, & Sharfman, 2016). If a stakeholder receives a voting right on a board, the perspective of the board usually becomes broader and societal legitimacy to the organization tends to increase (Shahzad et al., 2016). Third, an organization might have an impartial ombudsman or mediator who helps to resolve disputes with a stakeholder (Ayuso et al., 2014; Dawkins, 2014). Ombudsmen and mediators are third-party neutrals who are hired to render recommendations for settling conflicts in a way that all opposing parties accept (Dawkins, 2014), which gives certain decision-making power to stakeholders.

Fourth, an organization can have a stakeholder review its reports (e.g., annual or sustainability reports) for correctness and completeness (Manetti & Toccafondi, 2012; Moratis & Brandt, 2017). This practice usually includes a third-party assurance provider who acts as an intermediary between the organization and the stakeholder to collect reviews and ensure the consideration of stakeholder concerns by the organization (Manetti & Toccafondi, 2012). This review setup aims at giving the stakeholder influence on decision-making over the final report content.

After generating items for the index of stakeholder engagement based on the literature, we conducted expert interviews with practitioners to possibly explore additional practices and to validate the results of our literature review. In the next chapter, we describe the method of the qualitative study and thereafter turn to its results.

2.3.2.3 Expert Interviews: Method

Data Collection. For this study, we conducted expert interviews in which we asked practitioners about the practices of stakeholder engagement that they employ. Expert interviews are an appropriate method when assessing specialized knowledge, information, and experience that is hard to collect from other sources than the expert (Bogner & Menz, 2009). However, it is not necessarily clear which position or representative of an organization qualifies as an expert or responsible person regarding stakeholder engagement (practices). Organizational departments and functions with potential expertise in stakeholder engagement include but are not limited to corporate social responsibility (CSR), sustainability, communication, and management (chief executive officers). These departments and functions usually feature a high level of cross-functional integration (Alt, Diez-de-Castro, & Javier Llorens-Montes, 2015), which makes them potential experts in stakeholder engagement. Therefore, we selected organizations and interviewees following a purposive sampling strategy according to three criteria (Bell, Bryman, & Harley, 2018; Creswell & Creswell, 2017). First, the aim was to sample organizations from a range of different sectors and industries in order to detect potential variation in (the

use of) practices rather than focusing on sector and industry specifics. Second, an organization had to feature a certain professionalization of stakeholder engagement so that there would be an institutionalized unit that handles a variety of stakeholder relationships. This professionalization was fundamental since we understand stakeholder engagement practices as specific and institutionalized methods, routines, and procedures (see criteria of literature review). Third, interviewees had to have a background in stakeholder engagement, which means that they either handle stakeholder relationships themselves or represent third-party experts for stakeholder relationships (e.g., management consultants). This third criterion aimed at ensuring that interviewees would be qualified to provide information about their organization's practices of stakeholder engagement. The final sample of this study included 19 interviewees from 18 Swiss organizations in the following industries: automobile, banking (two organizations), consulting (three organizations), education, electronics, food, insurance (two organizations), manufacturing, non-government/non-profit, outdoor and travel equipment, pharma (two organizations), and public sector (two organizations).

We collected data by conducting semi-structured interviews, which generally follow an interview guide with predefined, structured questions but also offer the possibility to pursue other questions and topics that may come up spontaneously during the interview (Bell et al., 2018). In semi-structured interviews, the order of the questions can vary so that the conversation follows a natural flow rather than a fixed form (Gläser & Laudel, 2010). We chose this type of interview because we had a clear epistemological interest, namely the practices of stakeholder engagement that practitioners use. At the same time, we wanted to remain open and give interviewees the possibility to structure the description of practices according to their choice, for example, grouped by stakeholders, dimensions, or examples of best practices. We conducted the interviews in two phases for which we developed and deployed two interview guides. In the first phase, we proceeded in a relatively open and exploratory manner in that the interview guide contained questions about how interviewees manage stakeholder relationships, collaborate with stakeholders, and

which practices they use in positive and negative stakeholder relationships (see Appendix A). In the second phase, we followed up with some interviewees (and added others) to deliberately narrow the focus on the dimensions of stakeholder engagement. For this purpose, we structured the questions in the second interview guide according to the four dimensions (see Appendix B). The reason for changing from a relatively open to a rather restrictive interview guide was that this procedure got interviewees more into a mindset of talking about specific practices and expanding on the dimensions. This focus facilitated the research objective of exploring additional practices and validating the practices that were the result of our literature review.

We conducted a total of 25 interviews between February 2018 and August 2018. The 14 interviews of the first phase lasted between 51 and 83 minutes. In the second phase, we conducted 11 additional follow-up interviews with durations of 26 to 62 minutes. We stopped collecting data after 25 interviews because saturation became manifest, which means when themes and topics repeat themselves and new data provides little additional information (Charmaz, 2006). All the interviews of the first phase took place in person, whereas four out of the 11 follow-up interviews were conducted by telephone for the sake of interviewees' convenience. In terms of language, the interviewees answered our questions in Swiss German, High German, or English, depending on their preference. During the interviews, we made notes of relevant comments and developments (Bell et al., 2018), recorded all interviews on tape and transcribed them afterwards in standard language. We anonymized and deleted sensitive information from all text passages that we quote in the results section.

Data Analysis. After data collection and preparation, we read and analyzed the interview material by means of qualitative content analysis (Mayring & Fenzl, 2014) with the computer-assisted qualitative data analysis software ATLAS.ti (Friese, 2014). We chose qualitative content analysis because it allows for deductive and inductive categories (Mayring & Fenzl, 2014), which serves our purpose of exploring additional data-based practices (inductive) and validating theory-based

practices (deductive). Starting with the deductive categories, we coded the interviews according to the practices and dimensions of stakeholder engagement that resulted from our literature review. For more context and information, we additionally coded the type of stakeholder that a practice targeted (whenever possible). We would also create inductive codes whenever interviewees mentioned practices that did not emerge from the literature. However, the categories concerning the dimensions of stakeholder engagement remained strictly deductive as they specify the content (definition) of stakeholder engagement and set the frame of practices that we asked interviewees to describe.

2.3.2.4 Expert Interviews: Results

Inform Stakeholder. As we have described in the literature review, an organization can inform a stakeholder in a variety of ways. All of the seven practices that emerged from our literature review also occurred in the interviews with the stakeholder engagement practitioners (see Table 8). When we asked practitioners how they inform a given stakeholder, they brought up the use of old media. Typically, communication departments are responsible for this type of practice in the sense that they either produce media content themselves or build the bridge to journalists and producers of print, radio and TV. An interviewee aptly described an example of producing media content in-house:

> "Well, an employee […] of our public relations department has interviewed me about what is going on, what we do, what [our] role is." (Interview 6)

Another practitioner also depicted the case of having journalists and other producers of old media as intermediaries. In this case, media producers publicize information about and for an organization to make it available to stakeholders:

> "We work with media […]. That is: interviews with journalists, off-the-record conversations, and so forth." (Interview 14)

Among the most frequently mentioned information practices were reports that an organization issues for one or multiple stakeholders. Such reports can have various contents and forms, as one interviewee put it:

> "Then, of course, reporting. That is not unimportant – I can basically present my company. Be it in the reporting in addition to the annual report, for example, non-financial reporting, sustainability reporting, in specific reports […]." (Interview 23)

Most practitioners primarily referred to annual reports and corporate social responsibility or sustainability reports as examples for their reporting activities. Some interviewees also brought up other types of reports such as studies on specific subjects that might be of interest to a particular stakeholder group (e.g., customers). Regardless of its kind and form, reporting ought to offer relevant content to a stakeholder:

> "In this regard, we are very active in the sense that: how can we do reporting in a way that not only meets international standards but is also stakeholder-oriented. In other words, useful reporting." (Interview 2)

The interviews also confirmed that organizations aim at meeting the need for information by means of webpages. Some practitioners referred to their webpage for providing a stakeholder with general information of the organization, whereas other interviewees named specific content like recent developments in projects or results of surveys:

> "[…] website, that by now has its own section […], where we inform about the state [of affairs], next steps, or concretely, for example, about the analyses of an online survey […]." (Interview 17)

As another digital way of disseminating information, practitioners mentioned newsletters that they send to stakeholders. Organizations can send a generic

newsletter with the same content to all stakeholders or customize the newsletter according to the respective information need of a particular stakeholder. One interviewee explicitly named these alternatives:

> "[…] newsletters, newsletters for customers, tailor-made newsletters. Those are important instruments with which I can inform about my company and my activities." (Interview 23)

In the interviews, practitioners also mentioned the practice of operating a telephone hotline or also called helpline. As we described above, the majority of the information flow in this case goes from the organization to the stakeholder. This characteristic became evident in the following statement by one interviewee:

> "Increasingly new techniques or new instruments that are being introduced would be through hotlines, for example, where you can receive information […] where people can consult the organization." (Interview 18)

Another frequently mentioned practice was conferences or similar large events that an organization may use to inform a stakeholder. Such conferences and events can target one or multiple stakeholder groups. In the case of a single stakeholder target group, a typical example would be a conference for the financial community or, more specifically, financial analysts:

> "There are two conferences for financial analysts every year. Fifty to sixty analysts come together. […] There we explain at great length how every number accurate to two decimal places came about." (Interview 11)

One interviewee brought up a special case of a conference. In this setting, the parent organization brings together the internal stakeholders of its regional units in order to update them on recent developments and trends in the market and in politics. The interviewee described the conference event as follows:

> "Every year, we have three to four so-called regional conferences in which we bring them [internal stakeholders] together in regions and inform them about our activities and […] relevant changes, measures or the like." (Interview 25)

A number of practitioners mentioned presentations and talks as a means to inform a stakeholder. For this practice, third-party organizations often invite representatives of the focal organization to their place of business or to an external event. One interviewee described her external speaking engagements in the following way:

> "Yesterday, I was at this gathering for SMEs [small and medium-sized enterprises] and presented there. It can be a small or large firm that asks us, 'how did you do that?' On Thursday, I was at a labor law convention and talked about diversity of generations." (Interview 4)

A particular setting of presentations or talks to a stakeholder is when organizations visit universities or other educational institutions. In this instance, practitioners present their business model to students in order to raise awareness for the organization, for example, as a potential future employer after graduation:

> "For example, I can present my company on MBA level or to master students. Naturally, that is in a neutral context – it is not marketing. Primarily, it is about presenting my business model." (Interview 23)

In addition to the practices of our literature review, we identified another information practice during the interviews: participation in ratings of sustainability agencies. As one interviewee mentioned, their organization frequently completes questionnaires that sustainability agencies use to rate firms on environmental, social and governance (ESG) criteria. This information is often relevant to shareholders and the general public:

> "What rather comes to my mind are ratings and questionnaires that we receive. We have many requests directly from stakeholders. Often those are investors

such as, for example, RobecoSAM, DJSI, or FTSE4Good, such sustainability agencies, that send us questionnaires in which we release information, so actually inform the shareholder about our sustainability activities." (Interview 20)

Practice	Representative Quotes
The organization publishes tailored information for this stakeholder in "old" media (e.g., print, radio, or TV). (INFO1)	▪ "Well, an employee […] of our public relations department has interviewed me about what is going on, what we do, what [our] role is." (Interview 6) ▪ "We work with media […]. That is: interviews with journalists, off-the-record conversations, and so forth." (Interview 14) ▪ "We launch the campaign with pictures – imagery, online, physical, TV." (Interview 19)
The organization issues reports with relevant content for this stakeholder (e.g., annual or sustainability reports). (INFO2)	▪ "In this regard, we are very active in the sense that: how can we do reporting in a way that not only meets international standards but is also stakeholder-oriented. In other words, useful reporting." (Interview 2) ▪ "Then we issue relatively many studies and reports, not only by the sustainability team." (Interview 20) ▪ "Then, of course, reporting. That is not unimportant – I can present my company. Be it in the reporting in addition to the annual report, for example, non-financial reporting, sustainability reporting, in specific reports […]." (Interview 23)
The organization uses its webpage to meet the need for information of this stakeholder. (INFO3)	▪ "[…] website, that by now has its own section […], where we inform about the state [of affairs], next steps, or concretely, for example, about the analyses of an online survey […]." (Interview 17)

	▪ "Plus the whole communication about sustainability in the sense of information that we primarily communicate via our website." (Interview 20) ▪ "One the one hand, we have the web shop as an online information tool and, on the other hand, we have the website." (Interview 22)
The organization sends customized newsletters to this stakeholder. (INFO4)	▪ "I informed via e-mail every day […]. What is happening? What comes next? What are the risks? What do we do? Every day a short mail." (Interview 6) ▪ "[…] newsletters, newsletters for customers, tailor-made newsletters. Those are important instruments with which I can inform about my company and my activities." (Interview 23) ▪ "We have a weekly info mail to this internal stakeholder group." (Interview 25)
The organization provides information to this stakeholder via a hotline. (INFO5)	▪ "Increasingly new techniques or new instruments that are being introduced would be through hotlines, for example, where you can receive information […] where people can consult the organization." (Interview 18)
The organization informs this stakeholder through conferences or similar large events. (INFO6)	▪ "There are two conferences for financial analysts every year. Fifty to sixty analysts come together. […] There we explain at great length how every number accurate to two decimal places came about." (Interview 11) ▪ "And what I mentioned in the end: all the conferences and events […]." (Interview 20) ▪ "Every year, we have three to four so-called regional conferences in which we bring them [internal stakeholders] together in regions and inform them about our activities and […] relevant changes, measures or the like." (Interview 25)

The organization hosts presentations or talks specially geared to this stakeholder. (INFO7)	▪ "Yesterday, I was at this gathering for SMEs [small and medium-sized enterprises] and presented there. It can be a small or large firm that asks us: 'How did you do that?' On Thursday, I was at a labor law convention and talked about diversity of generations." (Interview 4) ▪ "I had a series of presentations yesterday […] about what [organization] does in the area of sustainability." (Interview 14) ▪ "For example, I can present my company on MBA level or to master students. Naturally, that is in a neutral context – it is not marketing. Primarily, it is about presenting my business model." (Interview 23)
The organization releases information relevant to this stakeholder by participating in ratings of sustainability agencies. (inductive) (INFO8)	▪ "What rather comes to my mind are ratings and questionnaires that we receive. We have many requests directly from stakeholders. Often those are investors such as, for example, RobecoSAM, DJSI, or FTSE4Good, such sustainability agencies, that send us questionnaires in which we release information, so actually inform the shareholder about our sustainability activities." (Interview 20)

Table 8: Representative Evidence of Information Practices

Consult Stakeholder. In the second dimension of stakeholder engagement, an organization can use a variety of practices to consult a stakeholder. In this context, we identified the six consulting practices of our literature review also in the interviews with the stakeholder engagement practitioners (see Table 9). As a frequently mentioned practice, interviewees and their organizations consult stakeholders in written surveys. In most cases, employees or customers are the target audience of such surveys:

> "On the side of customers, there is a customer satisfaction survey that is conducted regularly and asks how the [organization] is perceived with respect to certain services, service quality, proximity to the customer, and so on." (Interview 19)

However, practitioners also mentioned surveys that are not geared towards one specific stakeholder type but rather many different stakeholders. As an example for this case, one interviewee recalled:

> "On the one hand, we conducted the above-mentioned online survey at the turn of the year 2017/2018 in which we asked stakeholders about their expectations with respect to including them in our program." (Interview 17)

A consultation practice that the interviewees addressed less often and clearly in comparison to the other practices were focus groups. The characteristic feature of focus groups is that the organization investigates the attitudes of a stakeholder through group discussions with other stakeholders. Although the setting of a group discussion between stakeholders including the organization as a host or moderator seems rather particular and specific, we found some instances that correspond with this practice, for example:

> "That is a representation with people from each department of all hierarchical levels – from the managing director to the employee. There is a representative of each department and they all meet multiple times a year. […] In this council, we discuss topics many times every year and come together from all levels in the hierarchy to talk about issues from different angles." (Interview 21)

Some practitioners also mentioned the organizational practice of using suggestion boxes with which, in principle, organizations can target any stakeholder. As an example, one interviewee described the case of an employee suggestion system:

> "The exchange with our staff, the stakeholder employee, happens on the other hand via a quality and suggestion system that we have. It is a so-called innovation management system in which an employee can make suggestions in a simple manner." (Interview 22)

Another consultation practice that emerged from our literature review was when an organization encourages a stakeholder to expose internal grievances or misconduct, which is called whistleblowing. One possibility to enable whistleblowing would be by having a hotline for stakeholders to report issues:

> "We have a whistleblower hotline where employees can get in touch with us anonymously and say: 'My manager does something with which I do not agree. I would like to report this.' In these cases, we follow up." (Interview 9)

Interviewees also mentioned the practice of interviewing a stakeholder. Unlike surveys, interviews constitute an oral consultation between the organization and the stakeholder. In our sample, practitioners used surveys among other things to find out about a stakeholder's needs, interests, and motivations:

> "Then, there is seldom the case in which we sit down with customers and talk about their general needs. What could interest them? Where is the trouble? […] That is pure consultation where we feel what the customer really needs." (Interview 19)

> "First of all, we have sought talks with the people and asked, 'why did you actually reject that?'" (Interview 11)

When we asked interviewees about consultation practices, they also brought up advisory or sounding boards. Organizations may use this practice in the context of a specific project or independently of any project. The following quote describes the case of a project-specific advisory or sounding board in short:

> "The panel of experts that I mentioned. […]. By now, we have 20 people from different […] organizations that are permanently involved here. It is also […] an advisory board of the project manager." (Interview 17)

Aside from feedback in projects, it is also conceivable that an organization uses an advisory or sounding board to consult a stakeholder about the organizational sustainability strategy or sustainability report:

> "In the second step, we can build a stakeholder panel, for example, if one says: 'The personnel may be fixed for three years and there is a discussion twice a year.' For example, once in the context of planning the sustainability strategy and once for the review in which they [stakeholders] give feedback about the sustainability report […]." (Interview 23)

Practice	Representative Quotes
The organization conducts written surveys about this stakeholder's needs or satisfaction. (CONS1)	▪ "On the one hand, we conducted the above-mentioned online survey at the turn of the year 2017/2018 in which we asked stakeholders about their expectations with respect to including them in our program." (Interview 17) ▪ "That questionnaire looks at different aspects of how the services run, where challenges may be – sorts of resourcing around that." (Interview 18) ▪ "On the side of customers, there is a customer satisfaction survey that is conducted regularly and asks how the [organization] is perceived with respect to certain services, service quality, proximity to the customer, and so on." (Interview 19)

The organization investigates the attitudes of this stakeholder through group discussions with other stakeholders (so-called focus groups). (CONS2)	▪ "That is a representation with people from each department of all hierarchical levels – from the managing director to the employee. There is a representative of each department and they all meet multiple times a year. […] In this council, we discuss topics many times every year and come together from all levels in the hierarchy to talk about issues from different angles." (Interview 21) ▪ "One brings a number of selected stakeholder representatives in a room and discusses things that concern this group of stakeholders: can we come to an agreement?" (Interview 24)
The organization gathers ideas and complaints by this stakeholder via a physical or electronic suggestion box. (CONS3)	▪ "The exchange with our staff, the stakeholder *employee*, happens on the other hand via a quality and suggestion system that we have. It is a so-called innovation management system in which an employee can make suggestions in a simple manner." (Interview 22)
The organization encourages this stakeholder to expose internal grievances or misconduct (so-called whistleblowing). (CONS4)	▪ "We have a whistleblower hotline where employees can get in touch with us anonymously and say: 'My manager does something with which I do not agree. I would like to report this.' In these cases, we follow up." (Interview 9)
The organization interviews this stakeholder about personal information, matters or views. (CONS5)	▪ "First of all, we have sought talks with the people and asked, 'why did you actually reject that?'" (Interview 11) ▪ "Then, there is seldom the case in which we sit down with customers and talk about their general needs. What could interest them? Where is the trouble? […] That is pure consultation where we feel what the customer really needs." (Interview 19) ▪ "What typically always works well, often in a first step, is an interview, of course." (Interview 23)

The organization seeks advice by an advisory panel or sounding board of which this stakeholder is a member. (CONS6)	▪ "The panel of experts that I mentioned. […]. By now, we have 20 people from different […] organizations that are permanently involved here. It is also […] an advisory board of the project manager." (Interview 17) ▪ "In the second step, we can build a stakeholder panel, for example, if one says: 'The personnel may be fixed for three years and there is a discussion twice a year.' For example, once in the context of planning the sustainability strategy and once for the review in which they [stakeholders] give feedback about the sustainability report […]." (Interview 23) ▪ "For us, these regional conferences are like a type of sounding board. There, we listen to the formation of opinions and majorities." (Interview 25)

Table 9: Representative Evidence of Consultation Practices

Dialogue with Stakeholder. In the third dimension of stakeholder engagement, we grouped practices that an organization uses to dialogue with a stakeholder. The five dialogue practices of our literature review also came up in the interviews with the stakeholder engagement practitioners (see Table 10). Among the most frequently mentioned dialogue practices were one-on-one meetings between an organization and a stakeholder. Such meetings can take place in various ways, for example, in person:

> "[…] essential is the whole civil society and surely also NGOs [non-governmental organizations] with which we try to enter into regular dialogue. We meet at least one, two times a year face-to-face." (Interview 20)

Another practitioner described a different way of holding meetings and a different meeting frequency:

> "That means, one says, 'we proceed this way.' One makes a virtual meeting every six weeks. One discusses: 'Where do we stand? Where are new aspects? What do you need?'" (Interview 9)

In addition to meetings, many interviewees mentioned forums that an organization hosts to exchange ideas or opinions about a specific subject with a stakeholder. One practitioner described a forum in the context of a (trade) fair:

> "Then they say […], 'We [organization] have this trade fair once a year. We are very happy if you [stakeholder] come. We send you the topics in advance, incorporate and integrate it, send it back to you and then you can give feedback.'" (Interview 15)

Multiple practitioners also addressed a very common kind of forum: the general meeting of shareholders. This type of forum has a clear target group of stakeholders and aims at maintaining the dialogue with shareholders:

> "One of the most important forums in this context, when I talk about stakeholder management, is for example a general meeting." (Interview 14)

Yet another dialogue practice that came up in the interviewees was the use of social media. This category of online practices and tools enables an organization and a stakeholder to communicate mutually and complements the use of "old" media:

> "Of course, new media goes further in the sense that I communicate via all major social media, for example." (Interview 23)

As examples of social media, practitioners mentioned social networks such as Facebook and Twitter as well as corporate blogs. Blogs can target a generic audience or a particular type of stakeholder as the following quote shows:

> "Or be it via the employee blog. It belongs to our most widely read blogs altogether." (Interview 21)

Round-table discussions were another practice that interviewees brought up for dialoguing with a stakeholder. In this setting, an organization hosts or participates in a discussion with multiple stakeholders. One practitioner gave an example for hosting a round-table format:

> "For example, we organized round tables in which more than one hundred employees came together and discussed these questions." (Interview 21)

An organization does not necessarily have to be the host but can also participate in a third-party round-table discussion. As an example for this scenario, one interviewee made the following statement:

> "We participate in this Roundtable on Sustainable Palm Oil [established by the WWF]." (Interview 9)

The practice of involving a stakeholder in innovation processes also appeared in the interviews with the stakeholder engagement practitioners. As described in the literature review, this involvement of a stakeholder can happen in different stages or processes of innovation:

> "And that one specifically includes stakeholders in product development, product marketing, sales, and so on as well as discusses solutions: 'How can we gear this to the target group?'" (Interview 23)

In principle, it is conceivable that organizations involve any stakeholder type in their innovation processes. However, it is not surprising that interviewees most frequently mentioned customers when they described this dialogue practice:

> "[…] try to develop new solutions together, really with the customer. Because these are often specific questions and standard solutions do not fit." (Interview 20)

Practice	Representative Quotes
The organization has periodic meetings with this stakeholder (e.g., in person or by telephone). (DIAL1)	▪ "And so regular meetings and discussing what this means for them [stakeholder] – that started as one project. We have five or six with them now in many different areas." (Interview 7) ▪ "That means, one says, 'we proceed this way.' One holds a virtual meeting every six weeks. One discusses: 'Where do we stand? Where are new aspects? What do you need?'" (Interview 9) ▪ "[…] essential is the whole civil society and surely also NGOs [non-governmental organizations] with which we try to enter into regular dialogue. We meet at least one, two times a year face-to-face." (Interview 20)
The organization hosts forums to exchange ideas or opinions about a specific subject with this stakeholder. (DIAL2)	▪ "One of the most important forums in this context, when I talk about stakeholder management, is for example a general meeting." (Interview 14) ▪ "Then they say […]: 'We [organization] have this trade fair once a year. We are very happy if you [stakeholder] come. We send you the topics in advance, incorporate and integrate it, send it back to you and then you can give feedback.'" (Interview 15) ▪ "There are always these internal town halls by, for example, the CEO or a business unit manager […] in which it is possible to express one's view, ask questions, give feedback." (Interview 20)
The organization communicates intensively with this stakeholder via social media (e.g., blogs or social networks). (DIAL3)	▪ "[…] we use messaging apps and the research we did on messaging apps in terms of how people engage with us […]." (Interview 18) ▪ "Or be it via the employee blog. It belongs to our most widely read blogs altogether." (Interview 21) ▪ "Of course, new media goes further in the sense that I communicate via all major social media, for example." (Interview 23)

The organization participates in round-table discussions that include this stakeholder and others. (DIAL4)	▪ "These are two round tables that take place and everybody is invited […]." (Interview 1) ▪ "We participate in this Roundtable on Sustainable Palm Oil [established by the WWF]." (Interview 9) ▪ "For example, we organized round tables in which more than one hundred employees came together and discussed these questions." (Interview 21)
The organization involves this stakeholder in innovation processes (e.g., idea generation). (DIAL5)	▪ "This is about demands what should be considered, for example, in product development from this perspective [of the stakeholder] or what does not work at all." (Interview 15) ▪ "[…] try to develop new solutions together, really with the customer. Because these are often specific questions and standard solutions do not fit." (Interview 20) ▪ "And that one specifically includes stakeholders in product development, product marketing, sales, and so on as well as discusses solutions: 'How can we gear this to the target group?'" (Interview 23)

Table 10: Representative Evidence of Dialogue Practices

Make Joint Decisions with Stakeholder. In the fourth dimension of stakeholder engagement, an organization uses a practice to make decisions jointly with a stakeholder. The interviewees mentioned three out of the four practices in this dimension (see Table 11). Regarding the one missing practice, interviewees did not bring up that their organization grants a stakeholder a say on governing or administrative bodies. However, practitioners mentioned the practice of partnerships and initiatives with a stakeholder:

> "We have had a partnership agreement with them [stakeholder] for probably seven or eight years." (Interview 7)

In multiple instances, interviewees described the aims that they pursued with a particular partnership or initiative and how such an arrangement with a stakeholder comes into existence:

> "Because we are being perceived as leading in the area of sustainability and probably also are in the lead, we often get invited to work groups, task forces, and committees to describe our perspective […], where stakeholders are represented and then we work together on a concrete subject and try to find solutions." (Interview 20)

Another practice in which an organization makes joint decisions with a stakeholder occurs when the former settles disputes with the latter via an impartial ombudsman or mediator. For instance, organizations can deploy ombudsmen or mediators in the context of a project:

> "But in the case of such a project review, one would even have a third party, an external provider, analyze the project and, for example, the inclusion of stakeholders. That [provider] would then make suggestions to the project manager." (Interview 17)

Independently of any specific project, an organization may also choose to institutionalize an ombudsman or mediator. In one interview, a practitioner gave an example of such a scenario:

> "We have set up an office of ombudsman." (Interview 13)

As the last practice in this dimension, an organization can have a stakeholder review its reports (e.g., annual or sustainability reports) for correctness and completeness. In fact, one interviewee referred to the role of this practice in the context of the widely accepted standard in sustainability reporting by the Global Reporting Initiative (GRI):

> "As for example the GRI suggests: that stakeholders are actually one axis [of reporting] and determine the subjects on this axis […]." (Interview 15)

In another statement, a practitioner described how stakeholders might confirm or deny that the content of a sustainability report is correct and complete. However, it was unclear in this case whether the review had an impact on the organization and lead to a joint decision regarding the content of the report:

> "[…] then the review in which, for example, they [stakeholders] give feedback on the sustainability report and say: 'We as stakeholders who have gained in-depth insight into a company give feedback on whether we perceive that the company really implements what it writes.'" (Interview 23)

Practice	Representative Quotes
The organization has partnerships or initiatives with this stakeholder. (MJD1)	▪ "We have had a partnership agreement with them [stakeholder] for probably seven or eight years." (Interview 7) ▪ "Because we are being perceived as leading in the area of sustainability and probably also are in the lead, we often get invited to work groups, task forces, and committees to describe our perspective […], where stakeholders are represented and then we work together on a concrete subject and try to find solutions." (Interview 20)
The organization grants this stakeholder or a representative a say on governing or administrative bodies. (MJD2)	(no evidence)
The organization uses an impartial ombudsman or mediator to settle disputes with this stakeholder. (MJD3)	▪ "We have set up an office of ombudsman." (Interview 13)

	▪ "But in the case of such a project review, one would even have a third party, an external provider, analyze the project and, for example, the inclusion of stakeholders. That [provider] would then make suggestions to the project manager." (Interview 17)
The organization has this stakeholder review its reports (e.g., annual or sustainability reports) for correctness and completeness. (MJD4)	▪ "As for example the GRI suggests: that stakeholders are actually one axis [of reporting] and determine the subjects on this axis […]." (Interview 15) ▪ "[…] then the review in which, for example, they [stakeholders] give feedback on the sustainability report and say: 'We as stakeholders who have gained in-depth insight into a company give feedback on whether we perceive that the company really implements what it writes.'" (Interview 23)

Table 11: Representative Evidence of Joint Decision-Making Practices

In summary, the practitioners described all but one of the 22 stakeholder engagement practices of our literature review. On the one hand, the organizations of the interviewees did not seem to grant their stakeholders a say on governing or administrative bodies (item MJD2). On the other hand, one interviewee mentioned a practice that did not emerge from our literature review: the participation in ratings of sustainability agencies. For this reason, we added this inductive practice as an item of the stakeholder engagement index (see Table 8). Furthermore, we chose to keep the non-mentioned item MJD2 in the set of joint decision-making practices to further investigate its relevance to the index of stakeholder engagement.

As a result of content and indicator specification, we outlined stakeholder engagement in a so-called hierarchical component model or higher-order model (Becker, Klein, & Wetzels, 2012; Ringle, Sarstedt, & Straub, 2012). Unlike a model with a single latent construct, a hierarchical component model contains multiple lower-order constructs and at least one higher-order construct. Figure 3 illustrates

this model with its higher-order construct SE (stakeholder engagement) and the four lower-order constructs INFO, CONS, DIAL, and MJD that correspond to the dimensions of stakeholder engagement. In turn, the four lower-order constructs contain the 23 manifest indicators: eight in INFO, six in CONS, five in DIAL, and four in MJD. As the higher-order construct SE is by definition formative in nature, the four lower-order constructs specify the concrete components that amount to the overall concept of stakeholder engagement (Becker et al., 2012; Wetzels, Odekerken-Schröder, & Van Oppen, 2009). For the assessment of such a measurement model, all lower- and higher-order constructs of the model have to meet the standard evaluation criteria concerning the five critical issues of index construction (Hair et al., 2018). In the previous steps of index construction, namely content and indicator specification, we have considered all those constructs by design. In the same vein, we discuss the remaining critical issues with respect to the lower- and higher-order constructs.

2.3.3 Convergent Validity, Collinearity, and Indicator Significance and Relevance

To assess convergent validity, collinearity as well as indicator significance and relevance, we conducted two studies: Study 1 was a key informant survey with stakeholder engagement practitioners and Study 2 was a survey with employees of organizations. For each study, we first describe data collection and data analysis before we turn to the results.

2.3.3.1 Study 1

Data Collection. Study 1 targeted key informants (Kumar, Stern, & Anderson, 1993), which are organizational representatives in a field of interest, in our case, stakeholder engagement of organizations. Key informant surveys find broad application in the field of business research and represent a common method for the

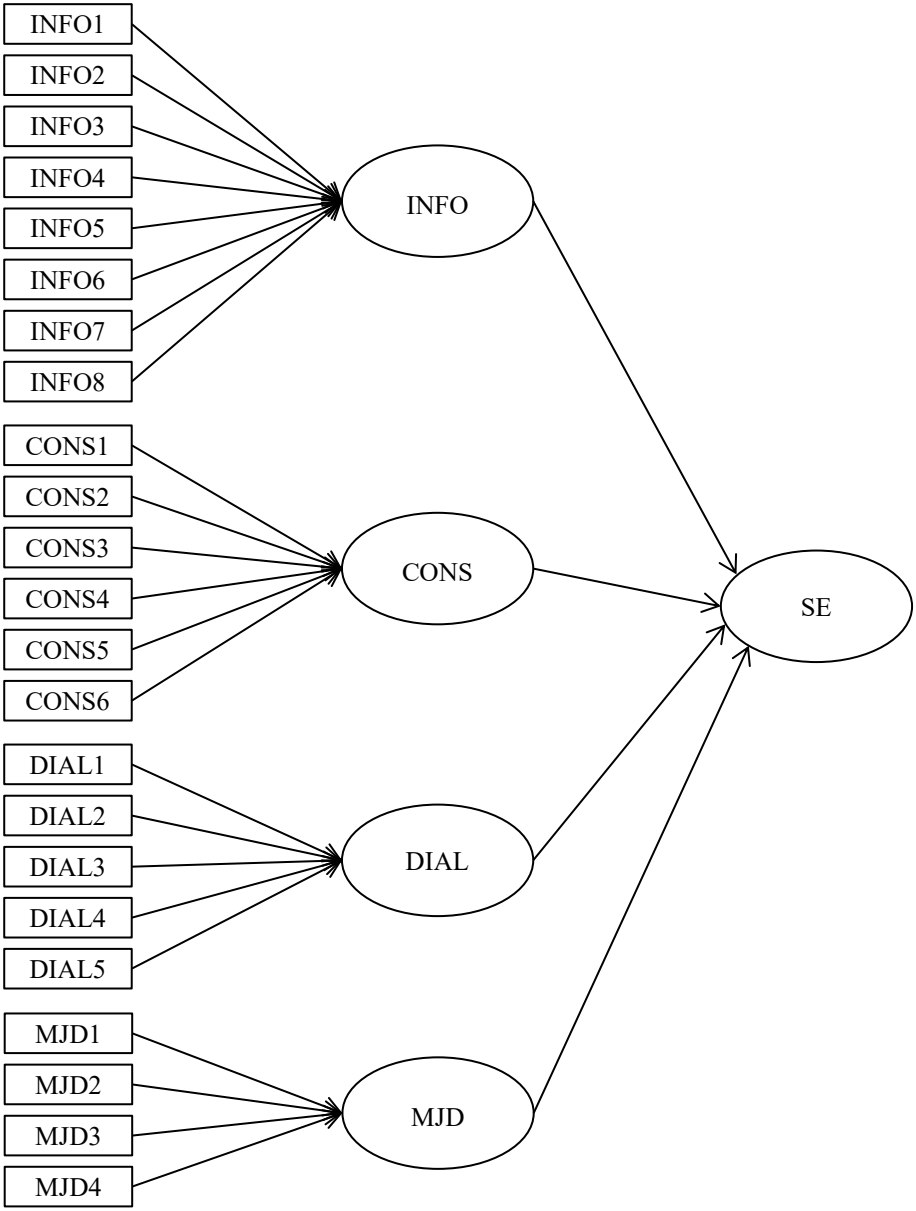


Figure 3: Hierarchical Component Model of Stakeholder Engagement

research objective at hand (Kemper, Schilke, Reimann, Wang, & Brettel, 2013; Schilke, 2014). As in the previous study, organizational positions that qualify as key informants for stakeholder engagement (practices) include but are not limited to corporate social responsibility (CSR) managers, sustainability managers, chief communications officers (CCOs), and chief executive officers (CEOs). These positions usually feature a high level of cross-functional integration (Alt et al., 2015), which makes them appropriate key informants for stakeholder engagement.

To determine the population of the study, we searched the Sustainability Disclosure Database of the Global Reporting Initiative (GRI).[9] This database contained non-financial reports (e.g., CSR or sustainability reports) of more than thirteen thousand organizations as of the year 2019. We chose this approach to determine the population of our study for two reasons: First, organizations that issue such a report are likely to feature a certain professionalization of stakeholder engagement in the sense that they have an institutionalized unit, which handles a variety of stakeholder relationships. This professionalization was important due to our understanding of practices as specific and institutionalized methods, routines, and procedures of stakeholder engagement (see criteria of literature review). Second, this approach provided us with information about the person who was responsible for the report and in all likelihood also for the stakeholder engagement of the respective organization. Accordingly, we searched the database for reports from 2015 to 2018 and restricted our search to Germany, Austria, and Switzerland to obtain a manageable population of 604 organizations. Additionally, we consulted the membership list of öbu, a Swiss association for sustainable economy that offers access to non-financial reports online.[10] With a restriction to larger organizations with at least 250 employees (again, for reasons of professionalization and institutionalization of stakeholder engagement), this search yielded additional 43 organizations. We searched for the names and e-mail addresses of the key informants in the respective reports or via the websites of the organizations whenever the reports

[9] http://database.globalreporting.org/
[10] https://www.oebu.ch/de/mitglieder-27.html

did not contain this information. Additionally, a sustainability consultancy in the network of our research team provided us with the contact details of 34 further key informants from other organizations in Switzerland. Thus, an aggregate of 681 key informants formed our initial target population.

Since our target population was mostly German-speaking, we translated all survey items and had another person translate them back into English. When the meaning of the translations differed from the original item, we discussed the differences and agreed on a solution that would best harmonize the English and German version of the item.

Before collecting data from our target population, we conducted a two-phase pretest (Prüfer & Rexroth, 2000) with university students. In the first, cognitive phase, we asked 18 students if and how they understood the items of our questionnaire. With their feedback, we reformulated and clarified items to minimize problems in understanding. In the second phase, we tested the corrected questionnaire with another class of students and had them answer the survey as if they were part of the target population. The goal of this phase was to detect the duration of the questionnaire and potential problems under field conditions, for instance, technical difficulties (Prüfer & Rexroth, 2000).

In December 2018, we contacted the key informants via e-mail with a description of the research project and a link to the survey that we ran with the online survey software Unipark. In the questionnaire, we asked key informants to think of an individual stakeholder with whom they directly deal in their professional position (see Appendix C). Respondents rated the items of the index on a Likert scale from one (strongly disagree) to seven (strongly agree). In this study, we missed to formulate and collect data for reflective single-item measures, which are necessary to assess the convergent validity of the lower- and higher-order constructs (Hair, Hult, Ringle, & Sarstedt, 2017; Ringle, Sarstedt, Mitchell, & Gudergan, 2018). For this reason, the evaluation of convergent validity was not part of the first but the second study (see Chapter 2.3.3.2). To mitigate social desirability bias, we guaranteed participants that our analysis would be completely anonymous. Under

such conditions, previous research has shown relatively honest self-reports of respondents (e.g., Paulhus, 1984).

Undeliverable or bounced e-mails (e.g. server refusals) caused a loss of 73 potential subjects and reduced our population to 608 organizations. In addition to the initial survey invitation, we sent three reminder e-mails between January and March 2019. We finished data collection in March 2019 with a result of 113 fully completed participations and hence a response rate of approximately 19%, which was higher than the 10 – 15% of comparable studies (Alt et al., 2015; Plaza-Úbeda et al., 2010).

Data Analysis. After data collection, we conducted data analysis with the software packages IBM SPSS Statistics 25 and SmartPLS 3.0 (Ringle, Wende, & Becker, 2015). We used the latter software to model the hierarchical component model of stakeholder engagement (see Figure 3) by means of structural equation modeling with partial least squares (PLS-SEM). PLS-SEM is the appropriate choice when a model includes formatively measured constructs (Sarstedt, Hair, Ringle, Thiele, & Gudergan, 2016), when data follows non-normal distribution (Cassel, Hackl, & Westlund, 1999), and when sample size is relatively small (Hair, Hult, Ringle, Sarstedt, & Thiele, 2017). As PLS-SEM requires every (latent) construct to have at least one manifest indicator, we specified the hierarchical component model of stakeholder engagement with the repeated indicators approach as recommended by Hair et al. (2018). This approach repeatedly uses all indicators of the lower-order constructs for the measurement of the higher-order construct (Lohmöller, 2013), so that the model contains all indicators twice. For the estimation of outer weights, we chose Mode B, which takes (multiple) regression weights as indicator weights and therefore is appropriate for formatively measured constructs (Hair et al., 2018).[11] The choice of the appropriate inner weighting scheme for hierarchical component models in PLS-SEM is subject to considerable controversy (Becker et al., 2012; Hair et al., 2018). Therefore, we followed the suggestion by Hair et al. (2018, p. 50) and used the factor weighting scheme "as a compromise solution between the centroid

[11] In comparison, Mode A uses correlation weights as indicator weights, which is advisable for reflectively measured constructs (Hair et al., 2018).

and path weighting schemes." Furthermore, we calculated the model based on bootstrapping with ten thousand subsamples including Efron's (1987) bias-corrected and accelerated bootstrap confidence intervals that adjust for distributional bias and skewness (Hair, Hult, Ringle, & Sarstedt, 2017).

As a preparation for analysis, we screened the data for missing values, unengaged responses, outliers, and normality (skewness and kurtosis). Concerning the main items of the survey – the practices of stakeholder engagement – the 113 participations contained no missing values because we forced an answer to each question. The remaining variables did not exhibit more than three missing values each. Furthermore, we did not detect any unengaged responses or outliers that would require us to take further measures such as elimination or substitution by mean or median. Regarding normality, the indicators MJD2, MJD3, and MJD4 showed high excess kurtosis (more than ±3) and skewness (between 2.24 and 3.89). This finding was plausible from a theoretical standpoint because organizations tend to use joint decision-making practices relatively rarely (cf. Friedman & Miles, 2006; Gao & Zhang, 2001, 2006; Morsing & Schultz, 2006). However, we decided to monitor the three indicators during our analysis.

Table 12 exhibits the characteristics of our sample. On average, key informants had a job tenure of approximately 11 years, were in top (39%) or middle (35%) management and had a position in sustainability or corporate social responsibility (54%). The data on the position (function) of the key informant showed skewness and kurtosis, which we expected and intended as our goal was to reach mostly practitioners in sustainability, corporate social responsibility or communications. The majority of cases were large organizations with an annual revenue of more than fifty million Euros or Swiss Francs (76%) and with 250 employees or more (80%). The data of these two variables exhibited skewness and kurtosis for the same reason as the position of the key informant: organizations that met our sampling criteria (see above) and published GRI reports tend to be relatively large in terms of headcount and to generate rather high revenue. With regard to industry, approximately half of the represented organizations were in manufacturing and production of goods (24%),

Variable	Mean/Amount (Percent)
Job Tenure (Years)	11.13 (SD[12] = 8.89)
Organizational Level	
Employee	19 (17%)
Lower Management	10 (9%)
Middle Management	40 (35%)
Top Management	44 (39%)
Position/Function[13]	
Sustainability or Corporate Social Responsibility	61 (54%)
Communications or Media or Public Affairs	34 (30%)
Management (CEO)	12 (11%)
Business or Corporate Development	2 (2%)
Other Position/Function	4 (4%)
Age of Organization (Years)	89.44 (SD = 63.36)
Annual Revenue of Organization (missing n = 3)	
Up to 10 Million Euros or Swiss Francs	16 (15%)
Up to 50 Million Euros or Swiss Francs	10 (9%)
More than 50 Million Euros or Swiss Francs	84 (76%)
Size of Organization[14]	
1 – 49 Employees	12 (11%)
50 – 249 Employees	11 (10%)
250 Employees or more	90 (80%)
Industry	
Manufacturing or Production of Goods	27 (24%)
Financial and Insurance Services	17 (15%)
Trade or Commerce	12 (11%)
Transportation and Storage	8 (7%)
Others (below 5% each)	49 (43%)

Table 12: Sample Characteristics (Study 1)

[12] SD = standard deviation
[13] Percentages add up to 101 percent due to rounding.
[14] Percentages add up to 101 percent due to rounding.

financial and insurance services (15%), or trade and commerce (11%). The average age of an organization in the study was about 89 years with a standard deviation of approximately 63 years.

Two potential problems of Study 1 were non-response bias and common method bias. We tested for non-response bias with the extrapolation method (Armstrong & Overton, 1977) that takes the characteristics of late respondents as an indication for those of non-respondents. Following this assumption, we divided the sample into two groups, early (first half) and late respondents (second half). We compared the means of the final stakeholder engagement index in this study between the two groups by means of a *t*-test. There were no significant differences between the groups, which indicated an absence of non-response bias in this study.

We also tested for common method bias, which refers to a systematic error in the measurement of variables that is due to the chosen method and/or source (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Richardson, Simmering, & Sturman, 2009). In the case of our method of analysis (PLS-SEM), an assessment of collinearity between the latent constructs determines whether common method bias is present (Kock, 2015; Kock & Lynn, 2012). In the given case, this assessment refers to potential collinearity between the lower-order constructs, which we test in the following as part of the index construction. Since it turned out that there was no collinearity between the lower-order constructs, we could safely assume an absence of common method bias in the data.

Table 13 displays the descriptive statistics (mean and standard deviation) and the bivariate correlations of the 23 items that the index of stakeholder engagement potentially contains. Mean values ranged from 1.35 for MJD3 to 5.77 for INFO2, whereas standard deviations went from 1.24 for MJD3 to 2.61 for DIAL1. On average, INFO indicators had the highest means with a value of 3.70, followed by DIAL (2.68) and CONS (2.17), whereas MJD items averaged the lowest means at a value of 2.04. To analyze bivariate correlations, we chose the Kendall rank correlation coefficient, also referred to as Kendall's tau coefficient, because our data

was scaled ordinally, followed non-normal distribution (partially skewed), and had a relatively small sample size (Field, 2013).

Collinearity. Assessment of collinearity refers to inspecting possible predictive relationships between items (Diamantopoulos & Siguaw, 2006; Diamantopoulos & Winklhofer, 2001). If there is high collinearity between items, the distinct explanatory power of an individual item with respect to the latent construct remains unclear (Bollen, 1989; Diamantopoulos & Winklhofer, 2001). Indicators that can be predicted by other indicators with a high significance are redundant and should be considered for exclusion from the index (Bollen & Lennox, 1991). The literature recommends to assess collinearity on the basis of inter-item correlations and the variance inflation factors (VIFs) of all items (Diamantopoulos & Winklhofer, 2001; Hair, Black, Babin, & Anderson, 2014; Hair, Hult, Ringle, & Sarstedt, 2017).

We first inspected the inter-item correlations of the indicators. Coefficient values of 0.70 and above are likely to be problematic since indicators share 50% of variance in this case (Hair et al., 2014). The bivariate correlations between the 23 items of the four lower-order constructs ranged from -.19 between INFO8 and MJD2 (low negative relationship) to 0.51 between CONS3 and MJD3 (moderate positive relationship). Regarding the lower-order constructs, INFO and MJD exhibited the lowest correlation with a value of 0.04 and the highest correlation was between CONS and MJD with a coefficient of 0.35. Overall, there were no strong predictive relationships between items or lower-order constructs (≥ 0.70), which provided first evidence that collinearity did not pose a problem for this index.

The second and probably most common method to assess collinearity is by inspecting the variance inflation factor (VIF) of each item and each lower-order construct. According to Kleinbaum, Kupper, Muller, and Nizam (1998), the appropriate threshold for VIF is ten, whereas higher values indicate serious collinearity. However, the more recent literature sets lower threshold values: Hair, Hult, Ringle and Sarstedt (2017, p. 144) suggest that an indicator with a VIF of five may be potentially problematic as this means “that 80% of its variance is accounted

Item	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1 INFO1	3.56	2.59	1.00																						
2 INFO2	5.77	1.78	0.26	1.00																					
3 INFO3	4.89	2.27	0.35	0.47	1.00																				
4 INFO4	2.76	2.38	0.22	0.04	0.31	1.00																			
5 INFO5	2.13	2.21	0.27	0.08	0.20	0.24	1.00																		
6 INFO6	3.61	2.58	0.26	0.16	0.19	0.24	0.04	1.00																	
7 INFO7	4.04	2.57	0.19	0.09	0.13	0.29	0.12	0.35	1.00																
8 INFO8	2.81	2.39	0.13	0.15	0.21	0.02	0.13	0.20	0.14	1.00															
9 CONS1	2.63	2.30	0.05	-.13	0.12	0.18	0.10	-.04	0.14	0.03	1.00														
10 CONS2	2.02	1.89	-.03	0.07	0.07	0.08	0.00	0.01	0.09	0.09	0.07	1.00													
11 CONS3	1.88	1.85	0.06	-.06	0.10	0.18	0.34	0.02	0.17	0.01	0.45	0.18	1.00												
12 CONS4	2.04	2.02	0.16	0.09	0.14	0.15	0.07	0.18	0.21	0.27	0.10	0.18	0.26	1.00											
13 CONS5	2.62	2.37	0.06	0.01	0.06	0.11	0.02	0.08	0.19	0.07	0.13	0.15	0.16	0.15	1.00										
14 CONS6	1.81	1.79	-.10	-.06	-.07	0.04	0.07	0.07	0.22	0.04	0.08	0.29	0.23	0.22	0.21	1.00									
15 DIAL1	4.33	2.61	0.05	0.03	0.01	0.01	0.14	0.04	0.19	0.16	-.06	0.00	0.02	0.01	0.17	0.07	1.00								
16 DIAL2	2.54	2.23	-.03	-.04	-.09	0.02	-.09	0.31	0.24	-.09	-.05	0.16	0.06	0.17	0.08	0.23	0.06	1.00							
17 DIAL3	2.16	1.91	0.15	0.07	0.31	0.32	0.21	0.25	0.25	0.20	0.11	0.00	0.15	0.24	0.03	0.08	0.16	0.02	1.00						
18 DIAL4	2.04	1.93	-.01	0.00	-.02	0.01	-.02	0.32	0.15	0.14	-.15	0.31	-.05	0.19	0.19	0.29	0.13	0.28	0.09	1.00					
19 DIAL5	2.32	2.17	-.18	-.10	0.00	0.02	-.07	0.00	0.04	-.06	0.08	0.35	0.01	-.02	0.08	0.29	0.07	0.14	0.10	0.24	1.00				
20 MJD1	3.46	2.57	0.01	-.13	-.07	-.02	0.02	0.05	0.15	0.02	0.11	0.21	0.13	0.02	0.25	0.20	0.08	0.29	-.07	0.21	0.26	1.00			
21 MJD2	1.60	1.71	0.04	-.14	-.07	0.08	0.06	-.03	0.09	-.19	0.22	0.23	0.18	0.05	0.21	0.34	0.08	0.11	0.10	-.04	0.33	0.22	1.00		
22 MJD3	1.35	1.24	0.08	-.10	0.05	0.12	0.22	0.07	0.17	-.01	0.31	0.08	0.51	0.31	0.13	0.33	0.05	0.09	0.15	0.07	0.00	0.11	0.33	1.00	
23 MJD4	1.73	1.81	0.00	0.03	0.08	0.14	0.13	-.02	0.09	0.03	0.25	0.24	0.33	0.22	0.14	0.27	0.09	-.07	0.07	0.19	0.18	0.02	0.13	0.19	1.00

SD = standard deviation

Table 13: Descriptive Statistics and Inter-Item Correlations (Study 1)

for by the remaining formative indicators associated with the same construct." In our analysis, we chose a conservative threshold value of three because VIFs between three and five could already be indicative of collinearity in some cases (Hair et al., 2014).

Table 14 shows that the VIFs of the 23 indicators ranged from 1.27 for DIAL1 to 2.81 for CONS3. Regarding the lower-order constructs, the VIFs went from 1.27 for INFO to 2.08 for CONS. As a result, all VIFs stayed below the threshold value of three and thereby confirmed the finding of correlation analysis that collinearity did not present a problematic issue in this measurement model.

INFO		**CONS**		**DIAL**		**MJD**		**SE**	
INFO1	1.57	CONS1	2.07	DIAL1	1.27	MJD1	1.45	INFO	1.27
INFO2	1.63	CONS2	1.58	DIAL2	1.58	MJD2	1.81	CONS	2.08
INFO3	2.03	CONS3	2.81	DIAL3	1.55	MJD3	1.99	DIAL	1.41
INFO4	1.44	CONS4	1.70	DIAL4	1.75	MJD4	1.54	MJD	1.95
INFO5	1.59	CONS5	1.36	DIAL5	1.68				
INFO6	1.80	CONS6	1.68						
INFO7	1.54								
INFO8	1.57								

Table 14: Variance Inflation Factors (Study 1)

Indicator Significance and Relevance. Assessment of indicator significance and relevance refers to the evaluation of the relative and absolute contribution (importance) of each indicator to the construct (Hair, Hult, Ringle, & Sarstedt, 2017; Ringle et al., 2018). The relative contribution to forming the construct is expressed by an indicator's outer weight, which is the result of regressing the latent construct as the dependent variable on the formative indicators as the independent variables (multiple regression). As outer weights have standardized values, we can compare

their magnitudes (Hair, Hult, Ringle, & Sarstedt, 2017). To determine whether indicators contribute to forming the construct in a relative sense, their outer weights have to differ significantly from zero (Hair, Hult, Ringle, & Sarstedt, 2017; Ringle et al., 2018). In this context, larger numbers of formative indicators tend to produce relatively fewer statistically significant outer weights because each additional item reduces the relative importance of the other indicators and makes them potentially non-significant (Cenfetelli & Bassellier, 2009). As a remedy of this potential problem, Cenfetelli and Bassellier (2009) suggest dividing larger numbers of indicators into separate groups (constructs) that are conceptually aligned. Along the same lines, a formative-formative hierarchical component model offers a solution to the problem by grouping indicators into several lower-order constructs, which is also the case in the model of stakeholder engagement.

In such a hierarchical component model, the outer weight of a manifest indicator indicates its relative contribution to its respective lower-order construct. Concerning the assessment of the higher-order construct, the coefficients of the paths from each lower-order construct to the higher-order construct represent its outer weights (Becker et al., 2012; Hair et al., 2018). In this regard, it can be problematic if one or multiple lower-order constructs have many more indicators than others because these indicators represent a larger share of the higher-order construct due to the repeated indicators approach (Becker et al., 2012). In this case, the relationship between the respective lower-order construct and the higher-order construct tends to have an upward bias. As for the present index, INFO consists of twice as many indicators as MJD (eights versus four), which suggests that the outlined problem might apply. For this reason, we decided to monitor how the overrepresentation of INFO affected the coefficients of the paths between each lower-order construct and the higher-order construct.

Table 15 shows the outer weights estimates, their *t*-statistics, *p*-values, and 95% bias-corrected and accelerated bootstrap confidence intervals (threshold values for 2.5% and 97.5%) of the 23 indicators. For the purpose of significance testing, we referred to the confidence intervals as suggested by Hair et al. (2017). Three out of

Item	Outer Weight	*t*-Statistic	*p*-Value	Confidence Interval
INFO1	-.51	1.94	0.05	[-1.05, -.14]
INFO2	-.06	0.24	0.81	[-.51, 0.50]
INFO3	0.32	0.95	0.34	[-.45, 0.80]
INFO4	0.11	0.47	0.64	[-.31, 0.58]
INFO5	0.44	1.30	0.19	[-.27, 0.85]
INFO6	0.12	0.42	0.68	[-.42, 0.70]
INFO7	0.69	2.63	0.01	[0.41, 1.08]
INFO8	-.01	0.03	0.98	[-.50, 0.61]
CONS1	0.12	0.59	0.56	[-.21, 0.58]
CONS2	0.22	0.72	0.47	[-.47, 0.73]
CONS3	0.34	0.96	0.34	[-.33, 0.95]
CONS4	0.28	1.14	0.26	[-.17, 0.75]
CONS5	0.18	0.92	0.36	[-.17, 0.61]
CONS6	0.46	1.69	0.09	[-.19, 0.87]
DIAL1	0.17	0.89	0.37	[-.18, 0.57]
DIAL2	0.21	0.88	0.38	[-.19, 0.78]
DIAL3	0.49	1.18	0.24	[-.31, 1.01]
DIAL4	0.33	1.27	0.20	[-.19, 0.75]
DIAL5	0.55	1.48	0.14	[-.43, 0.93]
MJD1	0.38	1.29	0.20	[-.19, 0.88]
MJD2	0.24	0.76	0.45	[-.50, 0.81]
MJD3	0.42	1.02	0.31	[-.32, 1.14]
MJD4	0.56	2.02	0.04	[0.12, 1.00]

Table 15: Outer Weights Significance Testing Results (Study 1)

the 23 items, namely INFO1, INFO7, and MJD4, had confidence intervals that did not include zero, which indicated that the outer weights of these indicators differed significantly from zero. On the construct level, all four paths from the lower-order constructs to the higher-order construct had statistically significant coefficients (INFO: 0.27, CONS: 0.37, DIAL: 0.32, MJD: 0.35) as their confidence intervals did not include zero (INFO: [0.19, 0.32], CONS: [0.37, 0.40], DIAL: [0.28, 0.38], MJD: [0.34, 0.42]). To correct the overrepresentation of INFO, we assessed the effect of reducing its items (Hair et al., 2018) to a number of four to six indicators (comparable to the other lower-order constructs), which left the result of the four significant path coefficients unchanged. Thus, the different amounts of indicators per lower-order construct did not seem to pose a problem in the hierarchical component model of stakeholder engagement. With the result of four significant path coefficients, the assessment procedure of the higher-order construct was complete and the measurement model fulfilled all the standard evaluation criteria at this level of analysis.

As most indicators' outer weights were not statistically significant, the *relative* contribution of these indicators to their respective lower-order construct was low. In this case, it is advisable to consider also the *absolute* contribution of an indicator, meaning its importance in forming a lower-order construct without consideration of the other indicators (Hair, Hult, Ringle, & Sarstedt, 2017; Ringle et al., 2018). Researchers can assess the absolute contribution of an indicator by its outer loading – the result of regressing the lower-order construct as the dependent variable on the single indicator as the independent variable (simple regression). In PLS-SEM, this result corresponds to the bivariate correlation between an indicator and its lower-order construct (Hair, Hult, Ringle, & Sarstedt, 2017). If an indicator's outer loading is high (≥ 0.50) or statistically significant, the indicator contributes to forming its respective lower-order construct in an absolute sense (Hair, Hult, Ringle, & Sarstedt, 2017; Ringle et al., 2018).

Table 16 presents the indicator's outer loadings estimates, their *t*-statistics, *p*-values, and 95% bias-corrected and accelerated bootstrap confidence intervals for significance testing. In terms of magnitude, 12 out of the 23 indicators showed outer loadings higher than 0.50 and five were statistically significant on the basis of their confidence intervals. Note that the outer loadings of the indicators CONS4, MJD2, and MJD3 exhibited significant *p*-values but their confidence intervals included zero. This contradiction did not pose a problem because all three indicators showed high outer loadings with values above 0.50. Conversely, the outer loading of DIAL1 was significant in terms of its confidence interval but had only a marginally significant *p*-value of 0.06.[15]

Taking the results of the outer weights and outer loadings together, 14 out of the 23 indicators had a relative or absolute contribution to forming their respective lower-order construct. The following nine indicators showed neither a significant outer weight nor a significant or high outer loading: INFO2, INFO3, INFO4, INFO6, INFO8, CONS1, CONS5, DIAL1, DIAL2, and MJD1. It bears mentioning that the majority of these items belong to the lower-order construct INFO that had a relatively large amount of indicators, which lowers the potential number of statistically significant outer weights (see explanation above). However, this issue does not explain why these items also failed to produce high or significant outer loadings. To test the reliability of our results, specifically with respect to the nine indicators in question, we conducted a second study that we present in the following.

2.3.3.2 Study 2

Data Collection. Study 2 was an online survey via Prolific Academic, a crowdsourcing platform that recruits human subjects for research purposes.[16] Recent studies have found Prolific Academic to be a suitable data source for social science

[15] The assessment of the higher-order construct's outer loadings was not necessary since all its outer weights were significant.
[16] https://www.prolific.co/

Item	Outer Loading	*t*-Statistic	*p*-Value	Confidence Interval
INFO1	-.08	0.28	0.78	[-.63, 0.46]
INFO2	0.14	0.61	0.54	[-.32, 0.53]
INFO3	0.34	0.99	0.32	[-.51, 0.73]
INFO4	0.44	1.52	0.13	[-.06, 0.83]
INFO5	0.50	1.30	0.19	[-.34, 0.88]
INFO6	0.38	1.40	0.16	[-.03, 0.84]
INFO7	0.79	3.28	0.01	[0.70, 0.96]
INFO8	0.18	0.59	0.56	[-.37, 0.77]
CONS1	0.45	1.88	0.06	[-.09, 0.75]
CONS2	0.52	1.64	0.10	[-.32, 0.86]
CONS3	0.73	2.57	0.01	[0.14, 0.95]
CONS4	0.58	2.08	0.04	[-.01, 0.88]
CONS5	0.43	1.89	0.06	[-.02, 0.76]
CONS6	0.76	2.80	0.01	[0.09, 0.95]
DIAL1	0.38	1.87	0.06	[0.08, 0.77]
DIAL2	0.37	1.40	0.16	[-.08, 0.88]
DIAL3	0.58	1.47	0.14	[-.25, 0.98]
DIAL4	0.57	1.70	0.09	[-.22, 0.89]
DIAL5	0.71	1.78	0.08	[-.46, 0.95]
MJD1	0.48	1.49	0.14	[-.28, 0.90]
MJD2	0.57	2.08	0.04	[-.09, 0.91]
MJD3	0.70	2.04	0.04	[-.09, 0.99]
MJD4	0.70	2.71	0.01	[0.23, 0.97]

Table 16: Outer Loadings Significance Testing Results (Study 1)

research because of its superior data quality and higher participant diversity compared to other similar platforms (Palan & Schitter, 2018; Peer, Brandimarte, Samat, & Acquisti, 2017). Prolific Academic offers the possibility of screening potential participants according to a range of demographic variables. For our study, we chose to limit the pool of participants to full-time employees so that they were likely to have enough professional exposure to stakeholders to give information about organizational engagement with them. We also restricted our study to participants who had an approval rate of at least 90 percent in previous studies. Additionally, we limited our population to subjects with no more than two hundred prior studies in order to avoid the problem of "professional survey-takers" (Peer et al., 2017) that might endanger data quality. Our study was only available to individuals who stated to speak English fluently and to have U.S. American, Australian, or Canadian nationality. Both restrictions together aimed at ensuring the necessary English proficiency to answer our survey. The choice of these screening variables resulted in a potential pool of 4,137 out of 74,010 eligible participants in the Prolific Academic database as of August 2019. In this month, we recruited participants and offered each respondent two pounds sterling (GBP) for an estimated working time of approximately 15 minutes. Participation in our survey was voluntary as respondents could leave the study at any time or withdraw their submission after completing the study. When answering the questionnaire, respondents were asked to select a stakeholder with whom they engage and deal personally in the context of their professional occupation (see Appendix C). Participants rated the potential index items on a Likert scale from one (strongly disagree) to seven (strongly agree). Additionally, we collected data on five global items to assess the convergent validity of the four lower-order constructs and the higher-order construct. We did not collect any data that would allow us to draw inferences about the personal identities of respondents so that participation happened anonymously. This procedure aimed at mitigating social desirability bias.

Data Analysis. In the first step of data analysis, we screened the data for completeness (missing values), unengaged respondents, outliers, and normality

(skewness and kurtosis). Out of 533 subjects who accessed the introduction page of our study, 106 subjects abandoned the survey prematurely and thus were excluded from data analysis. This relatively high completion rate of approximately 80 percent was likely attributable to the fact that participants only received remuneration if they completed the survey. As we forced an answer to each question, the remaining 427 participations exhibited no missing values except for one case in which there was no data on the control variables. Concerning unengaged respondents, we removed 11 participants from the data set because they failed to pass an attention check and, in addition, 20 participants who took less than 160 seconds (2.67 minutes) to complete the survey. We chose this time threshold as our survey contained 80 items and it is "unlikely for participants to respond to survey items faster than the rate of 2 s per item" (Huang, Curran, Keeney, Poposki, & DeShon, 2012, p. 106). At last, we identified two respondents who were unengaged as evidenced by giving the exact same answer to every substantial item (except for the control variables). Out of all items and variables, age of an organization and organizational tenure of a respondent exhibited outliers and non-normality (skewness and/or kurtosis). For this reason, we decided to monitor those two variables during our analysis. As the index indicators showed skewness and kurtosis values of less than 1.40, they featured no issues of non-normality.

After the described data screening, 394 participants formed our final sample. Table 17 shows the sample characteristics of only 393 participants as one respondent provided no information on the control variables. Respondents had a mean job tenure of approximately five years and mostly occupied an employee-level position in their respective organization (52%). The majority of participants worked in organizations with an annual revenue of either less than ten million U.S. Dollars (43%) or more than fifty million U.S. Dollars (34%). The respective organizations exhibited an average age of approximately 46 years and predominantly had 250 employees or more (56%). About half of the organizations were in the following four industries:

Variable	Mean/Amount (Percent)
Job Tenure (Years)	5.05 (SD[17] = 7.22)
Organizational Level	
Employee	204 (52%)
Lower Management	82 (21%)
Middle Management	80 (20%)
Top Management	27 (7%)
Age of Organization (Years)	45.59 (SD = 45.54)
Annual Revenue of Organization	
Up to 10 Million U.S. Dollars	168 (43%)
Up to 50 Million U.S. Dollars	92 (23%)
More than 50 Million U.S. Dollars	133 (34%)
Size of Organization[18]	
1 – 49 Employees	87 (22%)
50 – 249 Employees	84 (21%)
250 Employees or more	222 (56%)
Industry	
Health and Social Work	50 (13%)
Education	48 (12%)
Information and Communication	47 (12%)
Manufacturing or Production of Goods	45 (11%)
Others (below 10% each)	203 (52%)

Table 17: Sample Characteristics (Study 2)

[17] SD = standard deviation
[18] Percentages add up to 99 percent due to rounding.

health and social work (13%), education (12%), information and communication (12%), or manufacturing and production of goods (11%). All other industries had a share of less than ten percent of the sample.

We modeled the index with PLS-SEM and specified the hierarchical component model with the repeated indicators approach (Hair et al., 2018). The estimation of outer weights for each latent construct was in Mode B and the inner weighting scheme of the hierarchical component model followed factor weighting (Becker et al., 2012; Hair et al., 2018). For bootstrapping, we used ten thousand subsamples and included bias-corrected and accelerated bootstrap confidence intervals in our calculations and significance testing.

A test for non-response bias with the extrapolation method (Armstrong & Overton, 1977) – that analyzes late respondents in place of non-respondents – did not appear as a reasonable measure because our study reached the targeted number of participants within few hours after publication. However, we could get some indication about a potential non-response bias by inspecting the share of participants who accessed but did not complete our study (cf. Paolacci, Chandler, & Ipeirotis, 2010). The completion rate of approximately 80 percent was relatively high for survey research (cf. response rate in Study 1). This finding suggests that the potential of a non-response bias was rather small in this study (Mellahi & Harris, 2016).

We also tested for the possibility of common method bias by assessing collinearity between the latent constructs, more specifically, between the lower-order constructs of our model (Kock, 2015; Kock & Lynn, 2012). As this assessment was part of the index construction process, we elaborate on the detailed results in a later section but anticipate the outcome that there was no collinearity between the lower-order constructs. Therefore, we could safely assume an absence of common method bias in the data.

Table 18 shows the descriptive statistics (mean and standard deviation) and the bivariate correlations of the 23 index items. The range of mean values went from 2.97 for INFO5 to 5.19 for DIAL1 and standard deviations were between 1.85 for

Item	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1 INFO1	3.63	2.09	1.00																						
2 INFO2	5.01	1.86	0.14	1.00																					
3 INFO3	4.08	2.01	0.24	0.23	1.00																				
4 INFO4	4.88	1.87	0.17	0.13	0.32	1.00																			
5 INFO5	2.97	1.96	0.30	0.03	0.24	0.16	1.00																		
6 INFO6	4.18	2.04	0.15	0.23	0.23	0.18	0.26	1.00																	
7 INFO7	4.56	1.91	0.12	0.25	0.19	0.16	0.11	0.47	1.00																
8 INFO8	3.61	1.97	0.25	0.23	0.29	0.16	0.33	0.29	0.19	1.00															
9 CONS1	4.34	1.97	0.24	0.14	0.29	0.23	0.17	0.23	0.24	0.29	1.00														
10 CONS2	4.06	2.03	0.25	0.21	0.21	0.21	0.16	0.24	0.29	0.24	0.41	1.00													
11 CONS3	4.27	2.07	0.15	0.09	0.19	0.20	0.22	0.19	0.17	0.22	0.34	0.30	1.00												
12 CONS4	4.14	2.06	0.19	0.13	0.16	0.18	0.20	0.23	0.16	0.24	0.23	0.32	0.33	1.00											
13 CONS5	4.09	1.96	0.09	0.13	0.14	0.11	0.18	0.17	0.18	0.26	0.20	0.27	0.30	0.31	1.00										
14 CONS6	4.04	2.00	0.16	0.16	0.11	0.15	0.15	0.30	0.33	0.22	0.18	0.31	0.13	0.24	0.25	1.00									
15 DIAL1	5.19	1.85	0.02	0.25	0.05	0.07	-.03	0.24	0.31	0.09	0.12	0.20	0.08	0.10	0.21	0.26	1.00								
16 DIAL2	4.12	1.93	0.17	0.18	0.22	0.17	0.11	0.29	0.34	0.32	0.30	0.33	0.23	0.22	0.27	0.37	0.27	1.00							
17 DIAL3	3.74	2.10	0.19	0.00	0.24	0.39	0.23	0.13	0.05	0.17	0.24	0.23	0.29	0.17	0.18	0.14	-.09	0.20	1.00						
18 DIAL4	4.15	1.92	0.12	0.24	0.12	0.09	0.10	0.37	0.37	0.24	0.25	0.34	0.14	0.18	0.20	0.43	0.31	0.42	0.09	1.00					
19 DIAL5	4.32	1.93	0.10	0.19	0.13	0.12	0.08	0.24	0.23	0.22	0.23	0.24	0.16	0.24	0.25	0.26	0.30	0.38	0.12	0.47	1.00				
20 MJD1	4.59	1.86	0.10	0.24	0.12	0.14	0.09	0.29	0.34	0.24	0.20	0.29	0.18	0.21	0.21	0.29	0.43	0.37	0.09	0.39	0.51	1.00			
21 MJD2	3.29	2.05	0.21	0.21	0.18	0.11	0.31	0.26	0.11	0.31	0.17	0.23	0.18	0.29	0.23	0.28	0.06	0.23	0.13	0.26	0.20	0.16	1.00		
22 MJD3	3.59	2.01	0.16	0.21	0.21	0.13	0.26	0.26	0.23	0.25	0.22	0.23	0.12	0.27	0.25	0.39	0.14	0.32	0.13	0.34	0.34	0.31	0.38	1.00	
23 MJD4	4.02	2.08	0.11	0.33	0.18	0.05	0.20	0.31	0.21	0.41	0.17	0.20	0.13	0.19	0.24	0.31	0.22	0.30	0.05	0.31	0.30	0.31	0.33	0.47	1.00

SD = standard deviation

Table 18: Descriptive Statistics and Inter-Item Correlations (Study 2)

DIAL1 and 2.10 for DIAL3. The bivariate correlations of the 23 items ranged from -.09 between DIAL1 and DIAL3 to 0.51 between DIAL5 and MJD1.

Convergent Validity. Convergent validity refers to "the extent to which a measure correlates positively with other (e.g., reflective) measures of the same construct using different indicators" (Hair, Hult, Ringle, & Sarstedt, 2017, p. 140). Assessing convergent validity presents a relatively new criterion in the evaluation of formative measures as it was introduced in the seminal work of Hair et al. (2013). The analysis whether a formative and a reflective measure converge also goes by the name of redundancy analysis because both measures aim at operationalizing the same content (Chin, 1998). In a path model of redundancy analysis, the formative measure acts as the independent variable that predicts the independent variable, which is the reflective measure with one or multiple items (for an example see, Figure 4). The reflective measure can come from prior research or be a newly developed item that captures the essence of the underlying construct (Sarstedt, Wilczynski, & Melewar, 2013). We constructed such a global item for each lower-order construct and the higher-order construct since no measures of our constructs existed previously. To indicate convergent validity, the relationship (correlation) between the formative and the reflective measure has to be positive and strong. While Hair et al. (2013) originally suggested a path coefficient of 0.80 or above based on Chin (1998), newer works (e.g., Hair et al., 2017) have lowered this threshold to 0.70. Since researchers have assessed the convergent validity of formative measures rather seldom – in some research fields not at all (Ringle et al., 2018) – there is little evidence about the empirical convergence of indices.

The redundancy analysis of the lower-order construct INFO and the respective single-item measure revealed a correlation in the magnitude of 0.42 and the bias-corrected and accelerated bootstrap confidence interval for this point estimate went from 0.30 to 0.48. For CONS and its global indicator, the redundancy analysis produced a correlation of 0.54 with a lower boundary of 0.44 and an upper boundary of 0.60 for the bootstrap confidence interval. DIAL and the related item correlated with a coefficient of 0.63, for which the bootstrap confidence interval was between

0.56 and 0.69. The last lower-order construct MJD showed a correlation with its global indicator in the magnitude of 0.62 and a bootstrap confidence interval with a lower boundary of 0.54 and an upper boundary of 0.68. For the higher-order construct and its single-item measure, our redundancy analysis produced a point estimate of 0.48, while the bootstrap confidence interval went from 0.38 to 0.56. All stated correlations exhibited statistical significance at a one percent level and thus suggested some extent of convergent validity, even though they were not of the magnitude recommended by Hair et al. (2017).

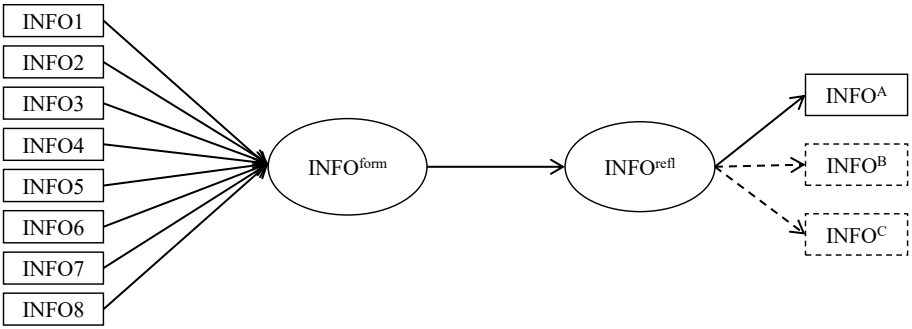


Figure 4: Example of Redundancy Analysis Path Model

Collinearity. For the assessment of collinearity, we first inspected the bivariate correlations of the 23 index indicators. As stated above, the highest correlation was between DIAL5 and MJD1 with a coefficient of 0.51 and therefore remained well below the critical threshold of 0.70 suggested by Hair et al. (2014). Regarding the lower-order constructs, DIAL and MJD correlated with 0.70, which was marginally indicative of potential collinearity issues. Additionally, DIAL and CONS exhibited a correlation of 0.68 with a 95% bias-corrected and accelerated bootstrap confidence interval between 0.61 and 0.73 pointing to possible collinearity. After correlation analysis, we assessed collinearity on the basis of the variance inflation factor (VIF) of all indicators and lower-order constructs, which we present in Table 19.

INFO		CONS		DIAL		MJD		SE	
INFO1	1.32	CONS1	1.69	DIAL1	1.71	MJD1	2.15	INFO	1.99
INFO2	1.46	CONS2	1.76	DIAL2	1.85	MJD2	2.03	CONS	2.17
INFO3	1.52	CONS3	1.57	DIAL3	1.62	MJD3	1.56	DIAL	2.51
INFO4	1.50	CONS4	1.53	DIAL4	2.18	MJD4	2.07	MJD	2.27
INFO5	1.52	CONS5	1.48	DIAL5	2.04				
INFO6	1.83	CONS6	1.79						
INFO7	1.85								
INFO8	1.80								

Table 19: Variance Inflation Factors (Study 2)

Regarding the manifest indicators, the VIFs ranged from 1.32 for INFO1 to 2.18 for DIAL4 suggesting no problematic levels of collinearity. This finding also held true for the lower-order constructs as their VIFs went from 1.99 for INFO to 2.51 for DIAL. Although the correlation analysis pointed to potential collinearity between lower-order constructs, the assessment of VIFs did not confirm the initial signs but evidenced a collinearity-free model.

Indicator Significance and Relevance. For a first indication about indicator significance and relevance, we assessed their outer weights, which describe each item's relative contribution to the respective lower-order construct. For this purpose, Table 20 shows all outer weights estimates, their *t*-statistics, *p*-values, and respective bias-corrected and accelerated bootstrap confidence intervals. The outer weights of all but four items (INFO1, INFO4, INFO5, and CONS3) showed confidence intervals excluding zero, which indicated that they contribute significantly to forming their respective lower-order construct. The coefficients of the paths from lower-order constructs to the higher-order construct had bootstrap confidence intervals that also excluded zero (INFO: [0.28, 0.30], CONS: [0.28, 0.30], DIAL: [0.29, 0.32], MJD: [0.29, 0.31]). Since all four lower-order constructs exhibited a

Item	Outer Weight	*t*-Statistic	*p*-Value	Confidence Interval
INFO1	0.11	1.75	0.08	[-.02, 0.23]
INFO2	0.23	3.37	0.01	[0.09, 0.36]
INFO3	0.15	2.22	0.03	[0.02, 0.27]
INFO4	-.01	0.19	0.85	[-.16, 0.13]
INFO5	0.10	1.57	0.12	[-.02, 0.22]
INFO6	0.26	3.35	0.01	[0.10, 0.42]
INFO7	0.39	5.09	0.01	[0.24, 0.54]
INFO8	0.34	5.29	0.01	[0.22, 0.47]
CONS1	0.26	4.04	0.01	[0.14, 0.39]
CONS2	0.25	3.84	0.01	[0.13, 0.38]
CONS3	0.07	1.17	0.24	[-.05, 0.18]
CONS4	0.13	2.08	0.04	[0.01, 0.26]
CONS5	0.20	3.14	0.01	[0.07, 0.32]
CONS6	0.54	9.32	0.01	[0.42, 0.65]
DIAL1	0.25	4.09	0.01	[0.14, 0.38]
DIAL2	0.35	5.55	0.01	[0.23, 0.47]
DIAL3	0.25	4.30	0.01	[0.14, 0.37]
DIAL4	0.40	6.15	0.01	[0.27, 0.53]
DIAL5	0.20	3.14	0.01	[0.08, 0.33]
MJD1	0.56	9.13	0.01	[0.43, 0.68]
MJD2	0.26	3.85	0.01	[0.13, 0.39]
MJD3	0.30	5.18	0.01	[0.19, 0.41]
MJD4	0.23	3.53	0.01	[0.11, 0.36]

Table 20: Outer Weights Significance Testing Results (Study 2)

significant relative contribution to the higher-order construct, the evaluation of index construction criteria was complete and eventuated in a positive result.

In the second part of assessing the significance and relevance of index indicators, we inspected their outer loadings to see whether the items without significant *relative* contributions (outer weights) instead feature significant *absolute* contributions to their respective lower-order constructs. Table 21 shows the relevant coefficients for the significance testing of all indicators' outer loadings. Altogether, the items exhibited high outer loadings of which all but six were above a value of 0.50. Furthermore, the bootstrap confidence intervals of all outer loadings excluded zero and thereby indicated that the loadings were statistically significant. From this result, we concluded that all items – also the ones with insignificant outer weights (INFO1, INFO4, INFO5, and CONS3) – were significant and relevant in forming their respective lower-order construct.

2.3.4 Index Characteristics and Further Analysis

In summary, we constructed an index of stakeholder engagement by assessing the five critical issues and evaluation criteria of (1) content specification, (2) indicator specification, (3) convergent validity, (4) collinearity, and (5) indicator significance and relevance. In this process, we produced a hierarchical component model of stakeholder engagement on the basis of the construct definition and the literature review of stakeholder engagement practices. Accordingly, this model consists of four lower-order constructs that contain organizational practices to inform, consult, dialogue, and make joint decisions with a stakeholder. Each lower-order construct has between four and eights manifest indicators that represent practices of stakeholder engagement and add up a total of 23 items. We retained all indicators because our theory-driven conceptualization of stakeholder engagement and systematic review of the literature offered strong support for their relevance, which was confirmed by Study 2. In this context, it is important to remark that formative indicators should not be removed from an index based purely on empirical grounds, especially not merely a single study (Hair, Hult, Ringle, & Sarstedt, 2017).

Item	Outer Loading	*t*-Statistic	*p*-Value	Confidence Interval
INFO1	0.43	6.34	0.01	[0.29, 0.55]
INFO2	0.57	9.27	0.01	[0.45, 0.68]
INFO3	0.42	6.20	0.01	[0.29, 0.55]
INFO4	0.46	6.13	0.01	[0.30, 0.59]
INFO5	0.47	6.96	0.01	[0.33, 0.59]
INFO6	0.74	16.37	0.01	[0.66, 0.83]
INFO7	0.75	15.12	0.01	[0.65, 0.84]
INFO8	0.70	14.10	0.01	[0.61, 0.80]
CONS1	0.62	11.25	0.01	[0.51, 0.72]
CONS2	0.72	15.56	0.01	[0.63, 0.81]
CONS3	0.48	6.97	0.01	[0.34, 0.60]
CONS4	0.56	9.56	0.01	[0.44, 0.67]
CONS5	0.59	10.55	0.01	[0.49, 0.70]
CONS6	0.80	20.37	0.01	[0.72, 0.88]
DIAL1	0.59	10.12	0.01	[0.47, 0.69]
DIAL2	0.80	21.25	0.01	[0.72, 0.86]
DIAL3	0.40	5.61	0.01	[0.26, 0.53]
DIAL4	0.82	23.46	0.01	[0.74, 0.88]
DIAL5	0.72	16.54	0.01	[0.62, 0.79]
MJD1	0.82	19.87	0.01	[0.72, 0.88]
MJD2	0.74	18.46	0.01	[0.66, 0.81]
MJD3	0.63	11.93	0.01	[0.52, 0.72]
MJD4	0.71	15.40	0.01	[0.61, 0.79]

Table 21: Outer Loadings Significance Testing Results (Study 2)

To describe the distribution of the index scores, we inspected the latent variable values of the cases (subjects). The observations exhibited an effective range between 0.79 and 6.47 in Study 1 and between 1.13 and 7.00 in Study 2. These results indicate that the index of stakeholder engagement does not suffer from major range restriction problems but features the potential to differentiate between organizations in terms of their engagement with a given stakeholder. The relatively wide ranges of latent variable scores might indicate that organizations vary considerably in their stakeholder engagement.

We also inspected the correlations between the index and characteristics of organizations, their representatives (our subjects), and stakeholder relationships. Table 22 shows the respective correlation coefficients, *t*-statistics, *p*-values, and 95% bias-corrected and accelerated bootstrap confidence intervals for both studies. In the first study, there were no statistically significant relationships between the use of stakeholder engagement practices and any organizational, personal, or relational characteristics. In the second study, the size of an organization, the job tenure and the organizational level of the representative correlated significantly with the index as the respective confidence intervals excluded zero. The differing results regarding the two studies suggested that the use of stakeholder engagement practices is not systematically related or limited to any organizational, personal, or relational characteristics. In other words, the index may explain differences between organizations and stakeholder relationships that go beyond the selected characteristics.

The description of the index score distribution (see above) suggested that organizations vary in their stakeholder engagement. To investigate this variation in more detail, we conducted a cluster analysis of the index scores on the level of the lower-order constructs. Instead of the overall index score, we chose the level of the lower-order constructs as the clustering variables to allow the potential emergence of clusters that combine different manifestations of the dimensions of stakeholder engagement (e.g., a cluster with high information and consultation but low dialogue and joint decision-making). With this cluster analysis, we aimed at identifying

meaningful groups of cases in terms of organizational engagement with an individual stakeholder. We chose to merge the data sets of Study 1 and 2 because sample sizes of around 100 or fewer cases, such as in Study 1, may produce clusters with few cases and little meaningfulness (Hair et al., 2014). The merging yielded a data set with 507 cases. As a necessary precondition of cluster analysis, we could rule out substantial collinearity of the lower-order constructs due to the results of the collinearity assessment in Chapter 2.3.3. In terms of clustering method, we employed two-step cluster analysis, which combines and includes the advantages of hierarchical and nonhierarchical techniques (Hair et al., 2014). Furthermore, we used log-likelihood distance and the Akaike information criterion (AIC) for the clustering of cases.

	Coefficient	***t*-Statistic**	***p*-Value**	**Confidence Interval**
Organization				
Age	-.05; -.01	0.58; 0.22	0.56; 0.83	[-.20, 0.10]; [-.11, 0.09]
Revenue	0.05; 0.07	0.27; 1.27	0.79; 0.21	[-.40, 0.35]; [-.04, 0.18]
Size	0.07; 0.14	0.33; 2.41	0.74; 0.02	[-.48, 0.38]; [0.02, 0.24]
Representative				
Job tenure	-.01; 0.10	0.06; 2.11	0.95; 0.04	[-.18, 0.19]; [0.01, 0.19]
Organizational level	0.06; 0.19	0.54; 3.83	0.59; 0.01	[-.15, 0.24]; [0.09, 0.28]
Relationship				
Duration	0.15; 0.06	1.28; 1.08	0.20; 0.28	[-.10, 0.36]; [-.05, 0.18]
Interaction frequency	-.29; -.01	1.66; 0.19	0.10; 0.85	[-.54, 0.17]; [-.13, 0.11]

1st value = Study 1; 2nd value = Study 2

Table 22: Correlations with Stakeholder Engagement Index

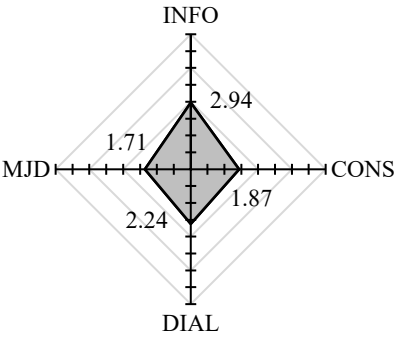
The cluster analysis produced three distinct clusters, which were easily interpretable and meaningful. Cluster quality was fair at an average silhouette

measure of cohesion and separation of 0.50. The largest cluster (N = 233, 46%) consisted of cases with medium scores of all four lower-order constructs (mean values: $M_{INFO} = 4.12$, $M_{CONS} = 4.01$, $M_{DIAL} = 4.17$, $M_{MJD} = 3.85$). For this reason, we labeled this cluster as *medium-level stakeholder engagement*. The second largest cluster (N = 161, 32%) included cases with relatively low scores of the four lower-order constructs ($M_{INFO} = 2.94$, $M_{CONS} = 1.87$, $M_{DIAL} = 2.24$, $M_{MJD} = 1.71$). Accordingly, we labeled this cluster as *low-level stakeholder engagement*. The smallest and final cluster (N = 113, 22%) was characterized by relatively high scores of the four lower-order constructs ($M_{INFO} = 5.51$, $M_{CONS} = 5.47$, $M_{DIAL} = 5.56$, $M_{MJD} = 5.53$). Thus, we labeled this cluster as *high-level stakeholder engagement*. A MANOVA of the cluster membership with respect to the latent variable scores of the lower-order constructs revealed significant differences between the mean values of the lower-order constructs in all clusters ($F(8, 1002) = 202.45$, $p < 0.01$).[19] Therefore, the three clusters were distinct in the sense that the mean score of each lower-order construct differed significantly among clusters. Figure 5 illustrates the three clusters of stakeholder engagement that emerged from our analysis.

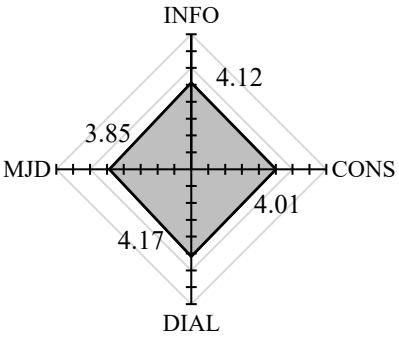
After conducting cluster analysis, we additionally assessed the clustering's predictive validity, which describes the accurate prediction of other theoretically related concepts (Hair et al., 2014). It seems plausible that engaging with a stakeholder signals some degree of initiative and interest of the organization towards that stakeholder – for instance, the preferences, views, and needs of the stakeholder. According to the prevailing view in stakeholder theory, most stakeholders tend to reciprocate the behavior of an organization and to match its efforts or even overcompensate by going beyond what is required (Bosse et al., 2009; Harrison et al., 2010; Jones et al., 2018). Rather than being purely selfish, stakeholders as economic actors have bounded self-interest and rely on norm-based social controls,

[19] Single one-way ANOVAs on the basis of each lower-order construct confirmed this result (INFO: $F(2, 266) = 165.20$, $p < 0.01$; CONS: $F(2, 504) = 165.20$, $p < 0.01$; DIAL: $F(2, 290) = 508.29$, $p < 0.01$; MJD: $F(2, 504) = 682.29$, $p < 0.01$). Post hoc comparisons with a Bonferroni and a Dunnett's T3 test indicated significant differences between all clusters (5% level).

Low-level Stakeholder Engagement (N = 161, 32%)



Medium-level Stakeholder Engagement (N = 233, 46%)



High-level Stakeholder Engagement (N = 113, 22%)

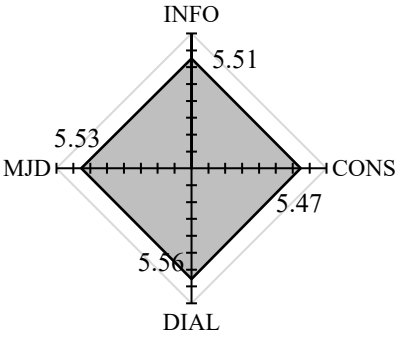


Figure 5: Clusters of Stakeholder Engagement

such as reciprocity, when dealing with an organization (Granovetter, 1985; Jolls, Sunstein, & Thaler, 1998). The reciprocal behavior of stakeholders functions in the way that they reward fair and just actions by organizations and penalize perceived unfairness and injustice (Bosse et al., 2009; Harrison et al., 2010). Stakeholder engagement is likely to affect a stakeholder's perception of procedural justice, which refers to fair decision-making, rules, and procedures of an organization. By definition, stakeholder engagement is of procedural nature due to its focus on practices (institutionalized methods, routines, and procedures) and its dimensions such as consulting and joint decision-making. If an organization consults or involves a stakeholder the in organizational decisions, the latter will perceive to be heard and will value such procedural justice. Therefore, we would generally expect stakeholder engagement to influence a stakeholder's perception of organizational justice positively, thereby to induce reciprocity, which in turn increases the initiative of the stakeholder towards the organization. Following this causal mechanism, high-level stakeholder leads to more stakeholder initiative than medium-level stakeholder engagement, whereas the latter results in higher more stakeholder initiative than low-level stakeholder engagement. In this context, we understand stakeholder initiative as the degree to which a stakeholder behaves (pro-)actively in the relationship with the organization and potentially exceeds mutually agreed requirements and expectations. In the preceding argumentation, we assume that an organization does not engage in an irresponsible or immoral manner, in which it deceives or manipulates the stakeholder (Greenwood, 2007). Engagement that counters the interests of a stakeholder and entails negative consequences for that individual is likely to induce perceived unfairness or injustice and thus probably leads to decreased stakeholder initiative.

To investigate the relationship between stakeholder engagement level and stakeholder initiative, we used the merged data set with 507 cases. As a measure of stakeholder initiative, we built on the concept of personal initiative, which comes from occupational and organizational psychology and describes the proactivity and self-starting behavior of employees (Frese, Fay, Hilburger, Leng, & Tag, 1997). For

our study, the concept of personal initiative served as a starting point because of its good transferability to all types of stakeholders relationships (not only employees). Accordingly, we took the six items of the personal initiative scale by Frese et al. (1997) as a basis of our measure and adjusted them to the context of a relationship between an organization and an individual stakeholder (see Appendix E). We averaged over those six items to calculate an overall score of stakeholder initiative. As the distribution of stakeholder initiative scores followed approximately normal distribution, we assessed the relationship between stakeholder engagement level and stakeholder initiative by means of a one-way ANOVA. Levene's test for homogeneity of variances indicated that the three levels of stakeholder engagement differed significantly in their variances ($F(2, 504) = 5.12$, $p < 0.01$). Therefore, we conducted Welch's *t*-test that showed a significant relationship between stakeholder engagement and stakeholder initiative ($F(2, 277) = 57.79$, $p < 0.01$). The estimated omega squared ($\omega^2 = 0.18$) was large as it indicated that approximately 18 percent of the total variation in the score of stakeholder initiative was attributable to differences between the levels of stakeholder engagement. The cluster of high-level stakeholder engagement had the highest mean value of stakeholder initiative ($M = 5.37$, $SD = 1.21$), followed by medium-level stakeholder engagement with the second-highest mean value of stakeholder initiative ($M = 4.36$, $SD = 1.21$), and low-level stakeholder engagement came last with the lowest mean value of stakeholder initiative ($M = 3.65$, $SD = 1.45$). Post hoc comparisons with Dunnett's T3 test revealed significant differences between all three levels of stakeholder engagement ($p < 0.01$). Thus, the findings suggested that the higher the level of stakeholder engagement the more initiative an individual stakeholder shows towards an organization. Figure 6 illustrates the boxplots of the levels of stakeholder engagement with respect to stakeholder initiative. Due to the apparent outliers, we conducted a sensitivity analysis in which we removed them and reran the previous tests. As the results were relatively similar to the findings before, sensitivity analysis confirmed our initial findings.

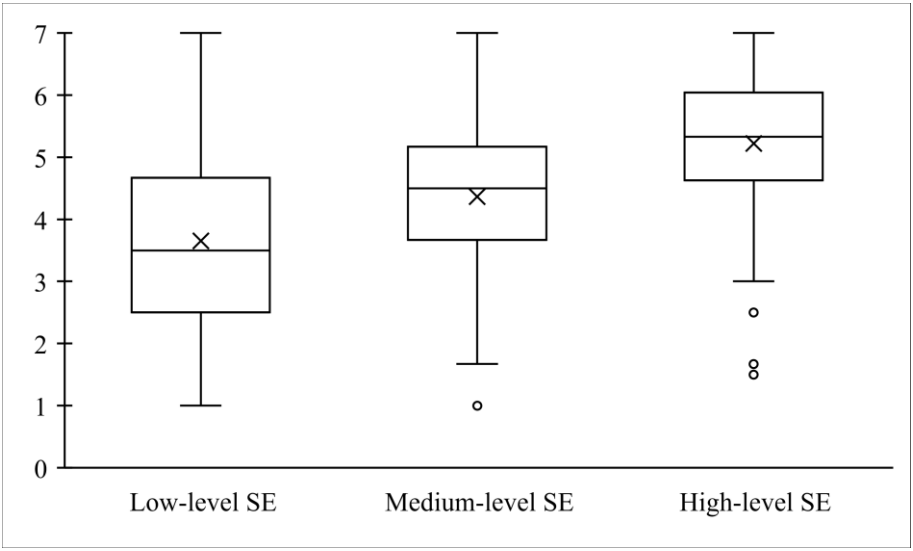


Figure 6: Differences in Stakeholder Initiative Between Levels of Stakeholder Engagement

2.4 Discussion

2.4.1 Implications for Stakeholder Theory

Our work has several implications for stakeholder theory and the research field of Business and Society. First, we provide researchers with a newly developed measure that operationalizes different configurations of organizational engagement practices with respect to individual stakeholders. Other measurement models on stakeholder engagement and other constructs in stakeholder theory confound all the stakeholders of an organization (e.g., Agudo-Valiente et al., 2015; Kaptein, 2008; Mazur & Pisarski, 2015; Plaza-Úbeda et al., 2010). However, we argue that an organization does not engage with all its individual stakeholders in the same manner but uses different practices and to a variable extent with different individual stakeholders.

This argument is connected to the so-called "names-and-faces" approach to stakeholder management, which posits that stakeholder should not be grouped but rather seen as individuals with their own needs and interests (McVea & Freeman, 2005). We consider the implication of this view for measurement and propose a measure of stakeholder engagement at the abstraction level of an individual stakeholder.

Second, our work has implications for the understanding of stakeholder engagement in the literature. To construct our index, we specify the meaning of stakeholder engagement against the backdrop of a multitude of diverging definitions in the stakeholder literature (e.g., Andriof & Waddock, 2002; Friedman & Miles, 2006; Greenwood, 2007). Our critical examination and consolidation of previous definitions leads us to define stakeholder engagement as the organizational use of practices to inform, consult, dialogue, or make joint decisions with a stakeholder. As opposed to a broad view that considers virtually every contact or action between an organization and a stakeholder to be stakeholder engagement, the definition of this work focuses on the main recurring elements in the literature. In this context, it is important to note that our definition does deliberately not refer to the organizational motivations, reasons, or purposes of stakeholder engagement. We argue that such influencing factors depend on the specific situation and context in which an organization engages with an individual stakeholder. With our focus on dimensions instead of motivations or reasons, we are in line with previous definitions of stakeholder engagement (Friedman & Miles, 2006; Noland & Phillips, 2010; Sloan, 2009).

Third, we provide evidence that the level of stakeholder engagement is related to the initiative of the stakeholder towards the focal organization. In our further analysis after index construction, we show that high-level engagement with an individual stakeholder is associated with significantly higher stakeholder initiative than medium- and low-level stakeholder engagement. In turn, stakeholder initiative was also significantly higher in the case of medium-level stakeholder engagement than low-level stakeholder engagement. Previous works indicated that

organizational engagement with stakeholders as a whole (not on an individual basis) has an effect on higher-level outcomes such as corporate financial performance (Ayuso et al., 2014; Henisz, Dorobantu, & Nartey, 2014). Our analysis breaks this relationship down to the micro-perspective: the positive link between stakeholder engagement and stakeholder initiative on the level of an individual stakeholder is likely to translate to higher joint value creation and increased financial performance on the aggregated level of stakeholders. In this vein, we add to the microfoundations of stakeholder theory "by drilling down to mechanisms that operate at an individual level of analysis" (Bridoux & Stoelhorst, 2014, p. 120).

2.4.2 Implications for Practice

From a managerial perspective, this work offers an instrument to measure and evaluate the engagement of an organization with respect to its individual stakeholders. An organization could survey either its managers who are responsible for stakeholder engagement (e.g., in CSR, sustainability, or communication departments) or individual stakeholders. If individual stakeholders are the target audience, the items need to be reworded slightly as, for example, INFO1 would read, "[name of focal organization] publishes tailored information for me in "old" media (e.g., print, radio, or TV)." In either case, managers may analyze specific relationships (single data points) or aggregate stakeholders to groups or an entire population. Alternatively, the scores of the four dimensions could be used to conduct a cluster analysis that would produce groups of individual stakeholders as a function of the organization's engagement with them. Based on such a clustering, practitioners can identify gaps between actual and target levels of engagement with certain stakeholders and develop strategies how to bridge those gaps.

In this context, the index of stakeholder engagement provides practitioners with a toolbox to engage with an individual stakeholder. The empirical results indicate that an organization is advised to use practices of all four dimensions, which includes informing, consulting, dialoguing, and involving the stakeholder in joint decision-making. If stakeholder engagement is low in one dimension, managers can inspect

the practices in that dimension to improve their interaction with stakeholders. A low score in one dimension might often be an indication that an organization does not use one or multiple practices in that dimension at all. In that case, our collection of practices serves practitioners as orientation and inspiration for engaging with individual stakeholders. In other words, the practices of the index provide organizations with guidance to a holistic approach of stakeholder engagement.

Another key finding for managerial practice is that high-level engagement of an organization with an individual stakeholder is linked with significantly higher stakeholder initiative than lower levels of stakeholder engagement. Thus, our work emphasizes that an organization ought to engage with its individual stakeholders in order to increase their initiative and, eventually, their contribution to joint value creation. Furthermore, there is considerable potential for more stakeholder engagement as approximately four out of five organizations (78%) were not in the high-level cluster. By improving stakeholder engagement, those organizations are likely to develop a close relationship capability and thereby achieve sustainable competitive advantage (Freeman, Martin, et al., 2007; Jones et al., 2018). Summing up the managerial implications, we conclude that our scientifically sound index of stakeholder engagement may serve as the foundation for an evidence-based stakeholder approach in practice.

2.4.3 Limitations and Avenues of Future Research

The two quantitative studies in this work come to different results concerning the relevance and importance of practices for the index of stakeholder engagement. A likely reason for this difference are the two samples: while Study 1 consisted of 113 key informants that were stakeholder engagement practitioners, Study 2 comprised 394 participants from an online crowdsourcing platform. As the empirical results are ambiguous, we choose to retain all indicators because our theory-based conceptualization of stakeholder engagement and systematic review of the literature strongly support their relevance and significance. To further investigate and specify the composition of the index, the literature advises to replicate index construction in

multiple studies and assess the test-retest reliability of an index (Diamantopoulos, 2005). Thus, we call for future research that focuses on the composition of the index. In such studies, researchers could also add other practices as index indicators.

According to recent literature, the evaluation of formative measurement models such as the present index of stakeholder engagement requires redundancy analysis that tests the convergent validity of the indicators (Hair, Hult, Ringle, & Sarstedt, 2017; Ringle et al., 2018). In this context, the lower-order constructs and higher-order construct of the model ought to correlate strongly with reflective single-item measures – Hair et al. (2017) suggest a magnitude of 0.70 or above. In this study, the respective correlation coefficients did not reach this level but ranged between 0.42 and 0.63, which nevertheless evidences some degree of convergent validity. Unfortunately, there is little evidence about the convergence of other indices, because convergent validity represent a rather new evaluation criterion regarding formative measures and has not been assessed in some research fields at all (Ringle et al., 2018). For this reason, we urge researchers to incorporate redundancy analysis in future index construction studies so that the degree of convergence in our study can be compared with other indices and reevaluated in this light.

As this work primarily focused on constructing an index, it does not study potential drivers or boundary conditions of stakeholder engagement. In this context, the relational model of an organization with respect to a stakeholder might be an influencing factor regarding the use of stakeholder engagement practices (Bridoux & Stoelhorst, 2016; Fiske, 1991, 1992). Individuals use relational models to mentally represent their social relationships, for example, with a stakeholder or an organization (Fiske, 1991, 1992). For instance, there is scope for future research to investigate whether stakeholder engagement is an antecedent or outcome of the relational model in a given stakeholder relationship. Research on further drivers and consequences may include individual-level elements such as stakeholder values, preferences, and beliefs (Felin et al., 2012). In this spirit, we urge stakeholder theorists to produce an overall (microfoundational) model of stakeholder engagement.

2.4.4 Conclusion

Stakeholder engagement has a significant influence on the relationship with an individual stakeholder and eventually on organizational performance. For this reason, it is of crucial importance to measure stakeholder engagement in a scientifically sound manner. Our work details an index of practices that an organizations uses to inform, consult, dialogue, or make joint decisions with an individual stakeholder. In this chapter, we make the case for focusing on the interaction between an organization and an individual stakeholder because an organization de facto uses different practices of stakeholder engagement with its various individual stakeholders. Our aim is to advance quantitative methods in stakeholder theory with the newly constructed index and to stimulate further research on stakeholder engagement. Additionally, the index provides organizations with an effective tool to develop, monitor, and improve their engagement with their individual stakeholders.

3 An Index of Stakeholder Relationship Types

3.1 Introduction

In essence, businesses and organizations consist of relationships between economic actors who pursue common objectives and thereby create value mutually (Freeman et al., 2004; Sachs & Rühli, 2011). From the perspective of the focal organization, these relationships are with stakeholders who affect or are affected by the achievement of the organization's objectives (Freeman, 1984). Although stakeholder relationships can be understood as the "breeding ground" for mutual value creation (Post et al., 2002), most stakeholder research has targeted one side of the relationship – organization or stakeholder – but little the nature of the relationship itself (Freeman et al., 2010; Laplume et al., 2008). Therefore, recent works call for more studies that investigate the content and inner workings of the relationship between organizations and stakeholders (Bosse & Coughlan, 2016; Jones, 2011). Specifically, Jones (2011) argues that the study of stakeholder relationships is likely to provide new insights about the link between stakeholder management and organizational performance. To study stakeholder relationships, empirical work on the subject requires precise and valid measurement models (Jones et al., 2018).

On these grounds, we construct an index on the types of relationships between an organization and an individual stakeholder. This measure targets and differentiates between individual stakeholders (natural persons), while previous measures confound organizational relationships with different stakeholders (e.g., Mazur & Pisarski, 2015). This confounding is related to the assumption of some stakeholder theorists that an organization has uniform (homogeneous) relationships with its different stakeholders (Berman et al., 1999; Brickson, 2005, 2007; Harrison et al., 2010; Jones et al., 2007, 2018). We question the assumption of relational homogeneity because stakeholder relationships differ in many influencing factors – e.g., trust, communication, and reciprocity – as well as individual factors – e.g., motivations and interests of individual stakeholders (Bosse & Coughlan, 2016;

McVea & Freeman, 2005; Polonsky et al., 2002). A measure whose indicators refer to all stakeholders (or stakeholder groups) of an organization would disregard the relational heterogeneity with respect to different stakeholders and operationalize a mix-up of stakeholder relationships. Thus, we choose the relationship between an organization and an individual stakeholder as the unit of analysis and observation for the present index.

For the theoretical basis of the index, we first review the literature on stakeholder relationships and detail our assumptions in this context. Subsequently, we turn to the construction of the index by addressing the following five critical issues and evaluation criteria: content specification, indicator specification, convergent validity, collinearity, and indicator significance and relevance (Diamantopoulos & Winklhofer, 2001; Hair, Hult, Ringle, & Sarstedt, 2017; Hair et al., 2018). In terms of content specification, we base the index on relational models theory (Fiske, 1991, 1992), which postulates that relational partners mentally represent their relationship by means of four elementary models (communal sharing, equality matching, authority ranking, and market pricing). For the specification of indicators, we use the generic scale items by Haslam and Fiske (1999) and adapted them to the context of an organization-stakeholder relationship. We evaluate the remaining three issues and criteria of index construction by means of two quantitative studies. In the end, we analyze the new measure's characteristics, the relative frequencies of relationship types, and the predictive validity of the index.

We contribute to stakeholder theory with the constructed index on stakeholder relationship types in three regards. First, we heed the calls for rigorous measures that stimulate empirical research in the field of Business and Society and, in particular, stakeholder theory (Crane, Henriques, & Husted, 2018; Jones et al., 2018). The index considers that organizational relationships vary considerably with respect to different individual stakeholders because the latter differ in their motivations, commitment, and many other factors that influence relationships (Bosse & Coughlan, 2016; Polonsky et al., 2002). Thus, our index contributes to the microfoundations of stakeholder theory and of strategy and organization research.

Second, we add to the growing literature stream that focuses on stakeholder relationships rather than organizations and their characteristics (Jones, 2011; Jones et al., 2018). We do so by basing our index on relational models theory and show that its four elementary models exist in relationships between an organization and an individual stakeholder. From this finding, we conclude that relational models theory provides an appropriate conceptual lens to study stakeholder relationships. Third, we show that the relationship type is associated with the initiative of the stakeholder towards the focal organization. Specifically, stakeholder relationships that are characterized by power imbalance and dependency exhibit less stakeholder initiative than relationships in which both partners follow their self-interest. Although this finding is not consistent with previous works on relational models in stakeholder theory (Bridoux & Stoelhorst, 2014; Jones et al., 2018), it relates to the influence of power and dependency on stakeholder relationships (Frooman, 1999; Mitchell et al., 1997).

3.2 Theoretical Background

Many works in stakeholder theory emphasize the importance of analyzing the nature of relationships between organizations and stakeholders (e.g., Bridoux & Stoelhorst, 2016; Freeman et al., 2010; Jones, 2011). For instance, Freeman et al. (2010, p. 24) state that "[b]usiness is about how customers, suppliers, employees, financiers […], communities, and managers interact and create value. To understand a business is to know how these relationships work." By contrast, quantitative research in stakeholder theory has mostly used variables from corporate sustainability databases (e.g., Ayuso et al., 2014; Chang & Chang, 2015), which do not refer to stakeholder relationships but to characteristics of organizations (e.g., corporate social responsibility programs and policies). In fact, recent work in stakeholder theory points to the need for measures on stakeholder relationships that increase precision in empirical research (Jones et al., 2018). Some efforts have been made to combine the development, quality, and effectiveness of stakeholder relationships in

measurement models (Mazur & Pisarski, 2015). But to our knowledge, there is no specific measure that identifies the type and inner workings of a stakeholder relationship that Freeman et al. (2010) refer to in the quotation above.

Before developing such a measure, the question arises as to which level of abstraction this measurement model should target. On the side of stakeholders, typical levels of abstraction are individual stakeholders (single persons), stakeholder groups, and all stakeholders as a whole (Bosse & Coughlan, 2016; Jones et al., 2018; Sluss & Ashforth, 2008). To decide between those levels, it has to be considered whether an organization establishes and maintains its various stakeholder relationships with a uniform or a different (varying) approach with respect to various stakeholders. If relationships are homogeneous regarding different stakeholders, the measure ought to target the relationship between an organization and all its stakeholders. Relational heterogeneity with respect to individual stakeholders or stakeholder groups would be an argument to operationalize the relationship on the individual or group levels. Regarding this issue, the stakeholder literature contains two groups of scholars that differ on the issue whether organizations have uniform or different relationships with their stakeholders. Table 23 illustrates those two groups with their assumptions about stakeholder relationships, representative works, the respective concepts and typologies or taxonomies.

In the first group, stakeholder theorists assume that an organization exhibits uniformity and homogeneity[20] in relationships with respect to its different stakeholders (e.g., Berman et al., 1999; Brickson, 2005, 2007; Harrison et al., 2010; Jones et al., 2007, 2018). This uniformity and homogeneity of stakeholder relationships refers to different concepts in the literature such as organizational orientation, strategy, (stakeholder) culture, or the approach to stakeholder management.

[20] In this work, we use the terms *uniformity* and *homogeneity* interchangeably in terms of relationships.

An Index of Stakeholder Relationship Types

Assumption	Work	Concept	Typology/Taxonomy
Uniformity/ homogeneity of relationships between an organization and its stakeholders	Berman, Wicks, Kotha, & Jones, 1999	Strategic orientation	Instrumental, normative
	Brickson, 2005, 2007	Organizational identity orientation	Individualistic, relational, collectivistic
	Jones, Felps, & Bigley, 2007	Stakeholder culture	Agency, corporate egoist, instrumentalist, moralist, altruist
	Harrison, Bosse, & Phillips, 2010	Approach to stakeholder management	Managing-for-stakeholders, arm's-length
	Jones, Harrison, & Felps, 2018	Relational ethics strategies	Communal sharing relational ethics, arm's-length relational ethics
Differentness/ heterogeneity of relationships between an organization and its stakeholders	Frooman, 1999	Resource relationships	Low interdependence, firm power, stakeholder power, high interdependence
	Polonsky, Schuppisser, & Beldona, 2002	Relationship orientation	Motivational (cooperative, individualistic, competitive), evaluative (operational, strategic)
	Onkila, 2011	Representations of stakeholder relationships	Power-based, collaborative, conflicting, one-sided contribution
	Bosse & Coughlan, 2016	Stakeholder relationship bonds	Acquiescence, instrumental, commitment, identification
	Bridoux & Stoelhorst, 2016	Relational models	Communal sharing, equality matching, authority ranking, market pricing

Table 23: Assumptions about Stakeholder Relationships

Berman et al. (1999) focus on strategic orientation and categorize organizations as having either an instrumental or a normative orientation. In the case of an instrumental orientation, organizations see their stakeholder relationships from a calculative perspective with the ultimate goal of maximizing profits. As a result, an organization maintains the relationships that produce the most advantages and benefits for it, while avoiding less profitable relationships. By contrast, a normative orientation emphasizes that organizations have a fundamental moral obligation to their stakeholders because their actions affect the well-being of stakeholders. Thus, a normatively oriented organization bases its behavior in stakeholder relationships on moral principles and guidelines. This categorization corresponds to the distinction between instrumental and normative stakeholder theory that represent two prominent streams in the stakeholder literature (Donaldson & Preston, 1995).

Similar to the previous typology, Brickson (2005, 2007) suggests three types of organizational (identity) orientation and explains their influence on patterns of stakeholder relationships. As the first of three orientation types, an individualistic organization resembles Berman et al.'s (1999) instrumental orientation in the sense that an organization pursues relationships that comply with its own objectives and self-interest. This orientation tends to lead to stakeholder relationships that consist of weak and fluid ties rather than deep and strong bonds. The second type of orientation is of a relational nature, which means that relationships become an end in themselves rather than a means to an end. Relational organizations consider themselves as interconnected to stakeholders in the form of deep and strong relationships that feature high frequency of interaction, reciprocity, emotional intensity, and intimacy. In such relationships, the organization has an interest in understanding and benefitting stakeholders. The third type, collectivistic orientation, sees stakeholder relationships as means to a common purpose or objective. To achieve the shared goal, collectivistic organizations pursue densely interconnected reciprocal relationships and are highly connected to the stakeholders with the same agenda but less associated with others. Such stakeholder relationships exhibit high

similarity of members of the respective in-group and aim at increasing the collective's welfare.

Jones et al. (2007) discuss a very similar concept to orientation but use the term *stakeholder culture*, which describes how organizations handle their stakeholder relationships and resolve conflicting goals between different claims of stakeholders. Essentially, the stakeholder culture of an organization "consists of its shared beliefs, values, and evolved practices regarding the solution of recurring stakeholder-related problems" (Jones et al., 2007, p. 142). There is a continuum of five stakeholder cultures: agency, corporate egoist, instrumentalist, moralist, and altruist. In a purely amoral agency culture, the manager considers only own interests and no organizational or stakeholder interests at all. A corporate egoist culture aims at short-term profit maximization and other near-term interests of the organization with shareholders as the only relevant stakeholders. Similar to Berman et al.'s (1999) and Brickson's (2005, 2007) instrumental orientation, an instrumentalist culture follows enlightened self-interest in the sense that an organization considers all stakeholders and their interests as long as they serve the purpose of its shareholders. An organization with a moralist culture adheres to ethical standards and principles and shows concern for all stakeholders unless organizational survival is at stake. In an altruist culture, the organization shows fundamental intrinsic morality and concern for the welfare of normative stakeholders.

Harrison et al. (2010) make a distinction between two approaches towards managing stakeholders and stakeholder relationships: the managing-for-stakeholders approach and the arm's-length approach. An organization that uses the managing-for-stakeholders approach provides its primary stakeholders with more value and decision-making influence than required to maintain the relationship. This overinvestment happens in the belief that it is the normatively right thing to do and/or economically beneficial in the long term. Unlike other works in stakeholder theory (e.g., Berman et al., 1999), Harrison et al. (2010) intentionally do not distinguish approaches on the basis of a normative or instrumental motivation but rather focus on outcomes of behavior such as allocation of value. In contrast to managing-for-

stakeholders, an organization with the arm's-length approach views its stakeholders as interchangeable exchange partners that receive decision-making influence and value only if this is also in its own interest or if stakeholder have the necessary power over the organization.

In their recent paper, Jones et al. (2018) discuss the similar but slightly different concept of relational ethics strategies that describe the shared plans and initiatives of an organization on how to treat stakeholders in dyadic interactions. On the one hand, there are organizations with a communal sharing relational ethics (CSRE) strategy, which refers to the relational model of communal sharing (Fiske, 1991, 1992) and manifests in the intention to establish close stakeholder relationships, share property with stakeholders, and create value mutually for both relationship parties. On the other hand, the arm's-length relational ethics (ALRE) strategy resembles the arm's-length approach by Harrison et al. (2010) in so far as organizations view stakeholder relationships as "discrete transactions or detailed, temporally bounded formal contracts, with little concern for future interactions" (Jones et al., 2018, p. 315). Thus, organizations with an ALRE strategy often change exchange partners, negotiate hard with stakeholders, and are willing to exploit potential information asymmetries and power imbalances.

In this group of scholars, the majority of works contrasts two relational types or approaches. One of these two types describes a normative or relational nature of stakeholder relationships, in which the organization and the stakeholder base their interaction on moral principles, care for each other's welfare and have a deep and strong bond. The other type approaches stakeholder relationships in an instrumental or transactional manner in the sense that the organization and the stakeholder primarily consider their self-interest, pursue only relationships that are beneficial to their own objectives and typically have rather shallow and weak bonds with each other. The aforementioned stakeholder theorists claim – some explicitly, some implicitly – that organizations (must) choose one of the two relational approaches and apply it uniformly to all their stakeholders. Thus, this group of scholars usually focuses on organizations as the unit of analysis.

Theorists in this group present a prescriptive and a descriptive argument why organizations feature relational uniformity with respect to different stakeholders. Put simply, the prescriptive argument is that stakeholders demand organizations to act and treat them uniformly (Brickson, 2007). Before interacting with an organization, stakeholders want to understand what it stands for and, to this end, observe relationships of the organization with other stakeholders (Albert & Whetten, 1985; Ashforth & Mael, 1996). A stakeholder can only draw the "correct" conclusions from these observations for the own relationship with an organization if the latter will act in the same way toward all other stakeholders. Along the same lines of this prescriptive argument, Harrison et al. (2010) believe "[…] that a consistent stakeholder management strategy is likely to be more competitive than a strategy that 'picks and chooses' the stakeholders it wants to treat well." A descriptive argument for relational uniformity would be if organizations in actuality have homogeneous relationships with different stakeholders. Brickson (2005) claims relational homogeneity by showing that an organization's identity orientation toward external stakeholders correlates with its identity orientation toward internal stakeholders. However, this empirical finding is only meaningful if organizational relationships within the two groups (internal and external stakeholders) are homogeneous, which is not evidenced by this correlation. In other words, the two group averages (overall measures) of internal and external stakeholders could still correlate, even if both groups consisted of two very wide ranges of different stakeholder relationships. Hence, the correlation between internal and external stakeholders' identity orientation does not prove that organizations exhibit relational uniformity with respect to different stakeholders.

In the second group, stakeholder theorists start from the premise that an organization has potentially different and heterogeneous relationships with its various stakeholders (e.g., Bosse & Coughlan, 2016; Bridoux & Stoelhorst, 2016; Frooman, 1999; Onkila, 2011; Polonsky et al., 2002). Scholars of this group address the heterogeneity of stakeholder relationships in multiple typologies and taxonomies, which we present in the following.

Frooman (1999) offers a typology of stakeholder relationships based on resource dependence theory (Pfeffer & Salancik, 2003) in which the power structure between an organization and a stakeholder plays a central role. If one party depends more on the other in terms of resources than vice-versa, it is more powerful in that relationship and may use this advantage to influence the behavior of the other party to advance own interests (Pfeffer & Salancik, 2003). Based on this premise, there are four possible types or characteristics of relationships between an organization and a stakeholder: (1) low interdependence (the parties do not depend on each other or only to a minor degree), (2) firm power (the stakeholder depends on the firm), (3) stakeholder power (the firm depends on the stakeholder), and (4) high interdependence (both parties depend on each other to a high degree).

Polonsky et al. (2002) divide a party's orientation towards a relationship into a motivational and an evaluative element. For the motivation of a relationship partner, they follow Deutsch (2011) and propose three types: cooperative, individualistic and competitive relationship orientation. A cooperative orientation means that an individual is concerned with the well-being and interest of both partners in the relationship, whereas individualistically orientated people only consider their own welfare. The third type, a competitive orientation, implies that someone aims at being better off than the relational partner. For the evaluative element of relationship orientation, Polonsky et al. (2002) distinguish between an operational and a strategic evaluation. In the operative mode, an individual evaluates the costs, benefits, risks, and opportunities of the relationship in the short term, whereas a person uses the strategic mode to assess these aspects in the long term.

Onkila (2011) investigates the role of language and rhetoric in constructing relationships between organizations and stakeholders. This work starts from the premise that relationships do not exist from an objective point of view but are socially constructed and of a changeable nature. Parties construct and change relationships predominantly through their use of language, which results in one of four different relationship types. A power-based relationship emerges if the stakeholder or the organization addresses the power relations between the two actors

in which case the less powerful party is positioned as the follower of the more powerful party. In a collaborative relationship, the stakeholder and the organization express their equality, joint responsibility, and shared interest that result in strong interaction between both parties. A conflicting relationship arises if the parties stress their differences, question the other actor's legitimacy, and construct conflicts and confrontations. In a one-sided contribution relationship, the organization claims a clear contribution to stakeholders as well as society as a whole and strengthens this claim by using positively connoted words and expressions.

Bosse and Coughlan (2016) address stakeholder relationships as psychological bonds that the stakeholder perceives and evaluates in terms of whether to continue the relationship. An individual compares relationship outcomes to what that person expected to get and to other relationship opportunities. If a stakeholder perceives a lack of desirable alternatives, the relationship to the organization is referred to as an acquiescence bond. In an instrumental bond, the stakeholder expects the relationship with the organization to yield a promising outcome or estimates the cost of ending the relationship to be higher than continuing it. If a stakeholder feels dedicated to and responsible for the organization, the individual perceives the relationship as a commitment bond. The fourth type, the identification bond, is stronger than the previous relationships in the sense that the stakeholder does not (or only rarely) look for alternatives because the person identifies strongly with the organization and is psychologically invested in the relationship.

Bridoux and Stoelhorst (2016) base their work on relational models theory (Fiske, 1991, 1992; Haslam & Fiske, 1999) and argue that the assessment of a relationship between an organization and a stakeholder does not happen objectively but depends on the mental representations of the relationship by each party. The basic premise of this work is that stakeholders typically perceive to be in a relationship with a whole organization and not only with one particular person. According to relational models theory, individuals use four psychological models to represent their relationships: communal sharing, equality matching, authority ranking, and market pricing. In a communal sharing relationship, the focus is the

shared identity between the organization and the stakeholder, whereas an equality matching relationship stresses the equality and reciprocity between both partners. In an authority ranking relationship, there is a clear hierarchy between relational partners, while in a market pricing relationship, personal identity and self-interest are highly salient.

Compared to the first group of scholars, the second group describes typologies that are not characterized by two relational types – normative-relational versus instrumental-transactional – but mainly offer four types of relationships (see Table 23). Those four types tend to include relationships that are either normative-relational or instrumental-transactional in nature but also contain additional relationship conceptualizations that take other characteristics and features into account (e.g., power structures or reciprocity norms). The stakeholder theorists of the second group advocate the view that an organization may vary in its stakeholder relationships and choose the type individually for each relationship. Consequently, these theorists emphasize relationships as the preferred unit of analysis.

The consideration of relational differentness and heterogeneity is in line with calls for the microfoundations of strategy and organization research (Barney & Felin, 2013; Felin & Foss, 2005) and the recent microfoundations of stakeholder theory (Bosse & Coughlan, 2016; Bosse et al., 2009; Bridoux & Stoelhorst, 2014, 2016). Microfoundations take into account that variations at the micro-level – in this context, single stakeholders or stakeholder relationships – may inform the analysis at the aggregate level – in this context, at the group-level of stakeholders or organizations (Felin et al., 2012). Following a microfoundational view, the most suitable level of abstraction are individual stakeholders because individuals "provide […] the appropriate starting point for analysis in the social sciences" (Barney & Felin, 2013, p. 143). In stakeholder theory, this perspective is related to the so-called "names-and-faces" approach to stakeholder management that views a stakeholder as an individual rather than a member of an undifferentiated crowd or a stakeholder group (McVea & Freeman, 2005). The names-and-faces approach points out that each individual stakeholder has own motivations and desires that go beyond the

person's generic role and interests as a part of a group or organization (Bosse & Coughlan, 2016). Additionally, the relationship between an organization and a stakeholder is subject to a vast number of influencing factors, which include (but are not limited to) trust, communication, learning, power, reciprocity and commitment of the two parties (Polonsky et al., 2002).

As individual and relational factors are likely to vary substantially regarding different stakeholders, we argue that it is essential to consider the potential differentness of relationships between organizations and individual stakeholders when developing measurement models. To account for this relational heterogeneity, we choose to construct an index whose unit of analysis and observation is the relationship between an organization and an individual stakeholder. In this context, an individual stakeholder is a single natural person who can act on one's own behalf or, as is often the case, represent a stakeholder group or organization in a boundary-spanning role (Bosse & Coughlan, 2016). In line with the names-and-faces approach, we acknowledge that a boundary-spanning individual stakeholder might not only relate to the focal organization as a representative of a group or organization but also as an individual with a personal perspective. This potential for role conflict does not present any problems for measuring the relationship type as long as the stakeholder does not switch between the roles in the relationship with the focal organization. We assume such consistency of the individual stakeholder in a given relationship, which is supported by the conceptualizations of the second group. The index will operationalize the prevalent relationship type regardless of whether the boundary-spanning stakeholder acts on the own behalf or represents the stakeholder group or organization. Thus, the question of the "true" role of the stakeholder in the relationship is of secondary importance for determining the type of relationship (e.g., normative-relational or instrumental-transactional).

Another fundamental assumption of our index construction is that an individual stakeholder perceives to be in a relationship with the focal organization. Organizational literature backs this assumption by showing that "people selectively ascribe humanlike characteristics, motivations, intentions, and emotions to

organizations and tend to hold beliefs about obligations between themselves and the organization, rather than any specific agent of the organization […]" (Bridoux & Stoelhorst, 2016, p. 232). For these reasons, we argue that an individual stakeholder perceives actions of managers and other organizational representatives as actions of the focal organization towards the stakeholder. Of course, there is the possibility that different representatives of an organization treat a given stakeholder heterogeneously (Jones et al., 2007). However, our work focuses on the relational differentness with respect to individual stakeholders and aims at highlighting the theoretical and practical implications that result from this focus. Thus, we leave examination of possible intra-organizational heterogeneity in the treatment of stakeholders to future research. In the remainder of this chapter, we describe the construction of our index, which contributes to the growing and increasingly important literature stream of the relational view in stakeholder theory.

3.3 Index Construction

To construct this index, we followed established recommendations and guidelines from the literature on index construction (Diamantopoulos & Winklhofer, 2001; Hair, Hult, Ringle, & Sarstedt, 2017; Hair et al., 2018). In the following, we will present the process of our index construction that addressed five critical issues and evaluation criteria: (1) content specification, (2) indicator specification, (3) convergent validity, (4) collinearity, and (5) indicator significance and relevance. Table 24 gives an overview of the index construction and the results of each critical issue and evaluation criterion.

3.3.1 Content Specification

The first critical issue of index construction is the content of the latent construct that the index represents, which we needed to specify (Diamantopoulos & Winklhofer, 2001; Hair, Hult, Ringle, & Sarstedt, 2017). For our index of stakeholder relationship types, we built on relational models theory because it synthesizes the most important

(1) Content Specification	
Specifying content and scope of latent construct	✓ Relationship type between organization and stakeholder on the basis of relational models theory by Fiske (1991, 1992)
(2) Indicator Specification	
Developing sets of items	✓ Adaption of scale by Haslam and Fiske (1999) to context of organization-stakeholder relationship ✓ Pool of 16 indicators (plus four items to assess convergent validity) ✓ Screening by 18 students ✓ Scoring: seven-point Likert scale
(3) Convergent Validity	
Assessing convergence with reflective measures of the same construct	✓ Significant correlation coefficients with single-item measures
(4) Collinearity	
Inspecting possible predictive relationships between indicators and between lower-order constructs	✓ All variance inflation factors < 3
(5) Indicator Significance & Relevance	
Evaluating the relative and absolute contribution of each indicator and lower-order construct	✓ All but two indicators (AR3 & AR4) with significant outer weight or outer loading in at least one of two studies ✓ All lower-order constructs with significant outer weights in both studies

Table 24: Construction Process of Index of Stakeholder Relationship Types

works on social relationships in sociology, anthropology, and psychology (Fiske, 1991, 1992). Relational models theory postulates that individuals mentally represent their relationships on the basis of four elementary models that they use for the "conception of any given interaction, for their intentions, plans, and expectations about it, for their social motivations and emotions, and for their evaluative judgments [of others' actions]" (Fiske, 1992, p. 690). In short, relational models describe how people understand their personal role and the appropriate behavior in a specific relationship. Previous works in stakeholder theory (Bridoux & Stoelhorst, 2016; Jones et al., 2018) have used this theory for conceptual contributions about stakeholder relationships. Above, we have outlined the four relational models – communal sharing, equality matching, authority ranking, and market pricing – and in the following, we detail them on the basis of Fiske (1991, 1992). Table 25 exhibits the main characteristics of the four models.

In a communal sharing relationship (hereafter "CS"), an individual perceives its relational partner as part of the same community. In this community, the members are equivalent and relatively undifferentiated from each other. Hence, CS implies that the common identity is more salient than the personal identity and the relational partners have shared motivations and goals. To achieve these goals, individuals act altruistically and contribute to the relationship based on their ability. Under CS, the parties treat resources as common property and divide it according to their needs, meaning that individuals receive what they require without others expecting anything in return. In other words, CS relationships follow the communist or social maxim, "from each according to his ability, to each according to his needs." Decision-making under CS happens based on consensus in which individuals seek to find the best alternative not from their position but for all involved parties. Frequently, people perceive to be in CS relationships with nonhuman or immaterial entities (e.g., organizations) without necessarily referring to a human or material partner. This type of relationship targets individuals' desire to be part of a collective entity and induces people to favor their entity and regard it as better than others.

	Communal Sharing	**Equality Matching**	**Authority Ranking**	**Market Pricing**
Level of self-concept	Community	Interpersonal	Interpersonal	Personal
Representation of self and other	Community member	Equal partner	Superior versus subordinate	Individual
Needs fulfilled by relationship	Need for belonging/ affiliation	Need for equality	Need for dominance versus security	Need for achievement
Motivation	Altruism toward in-group	Reciprocity	Power versus conformity	Self-interest
Appropriate behavior	Pitch in when needed	Reciprocate other's behavior	Manage subordinate vs. obey superior	Contribute in proportion to reward
Distributive principle	Need	Equality	Status	Equity
Decision-making	Consensus	Equal say	Directives	Individual decisions

Table 25: Main Characteristics of Relational Models
(Based on: Bridoux & Stoelhorst, 2016)

In an equality matching relationship (hereafter "EM"), individuals perceive equivalence and equality between relational partners. Both sides of the relationship have the same rights and duties. In comparison to CS, people do not share a common identity but keep their distinct personal identity. The main relationship principles are

egalitarianism and reciprocity, which serve the objective that individuals keep the balance between each other. To this end, the partners of the relationship reciprocate each other's behavior and thereby follow strategies like tit-for-tat or eye-for-an-eye revenge. Each partner contributes equally to the relationship, receives the same share (of resources) and has an equal say when making decisions. In contrast to MP, which is based on a mistrustful nature of human beings, EM stresses the necessity of trusting to take the first step in an interaction. EM targets individuals' desire for equality and distributive justice based on the premise that people wish to receive (at least) as much as their relational counterparts.

In an authority ranking relationship (hereafter "AR"), the partners perceive a clear hierarchy between each other and define their identity based on their rank in this hierarchy. The status and power of an individual in this hierarchy determines their appropriate behavior in the relationship: the superior manages and controls the subordinate who in turn takes orders from the superior. An important feature of AR is the perceived legitimacy of the superior's power, which the subordinate does not question but considers justified and appropriate. In terms of decision-making, the subordinate provides the necessary information to the superior, who makes decisions for both parties, and the subordinate follows the directives of the superior. In the same vein, the division of resources happens according to rank whereby the superior receives a greater proportion than the subordinate. Compared to CS and EM, AR relationships do not follow a symmetric logic but are (highly) antisymmetric. Overall, AR meets the superior's need for dominance and the subordinate's desire for deference and security.

In a market pricing relationship (hereafter "MP"), individuals perceive their personal identity very strongly and compete against relational partners to achieve their self-interest. Actors base their behavior with respect to the partner on cost-benefit considerations and aim at maximizing their pay-offs in the relationship. The partners in an MP relationship agree that these pay-offs – in other words, the division of resources – should be proportional to individuals' contributions. The individuals make their decisions separately and independently of each other and the market

mechanism brings these decisions together. To make such decisions, people "usually reduce all the relevant features and components under consideration to a single value or utility metric [e.g. a price] that allows the comparison of many qualitatively and quantitatively diverse factors" (Fiske, 1992, p. 692). Consequently, MP relationships typically follow an economic logic and understanding. Relationships that follow the principle of MP meet the need of individuals for rational (cost-benefit) calculation, efficiency in human interaction and maximization of profit and utility.

While most interactions have a predominant relational model, people usually do not only draw on one but multiple models for each relationship and tend to change the used models over time with increasing relationship duration and interaction (Fiske, 1991, 1992). According to Fiske (1991), individuals of all cultures around the world combine the four elementary models to form relationships and to guide social interactions.[21] Evidence from anthropology supports the claim that "[t]hroughout the world, the models appear in diverse and historically unrelated cultures at all levels of social organization" (Bolender, 2003, p. 239). As a crucial factor, culture specifies how individuals implement a particular relational model in practice (Fiske, 1992). Regardless of the cultural context, an important feature of relational models theory is that individuals usually strive for balanced relationships wherein both partners use the same relational model (Fiske, 1991, 1992). Although people might misinterpret the relational model choice of others, "there is considerable congruity in people's selection and use of the four models" (Fiske, 1992, p. 693). If actors experience a mismatch in the relationship, they will adjust their relational model according to the partner or end the relationship altogether (Bridoux & Stoelhorst, 2016; Fiske, 1991).

When we compare the four relational models with other relationship conceptualizations of stakeholder theorists (in the second group), we see that the

[21] Apart for social interactions, Fiske (1991, 1992) also proposes the possibility of *asocial* or *null* interactions. An example for an asocial interaction is that of a sociopath who does not follow conventional standards of social behavior and a null interaction signifies a non-existent relationship (no interaction).

models indeed represent the main building blocks of social relationships. CS shares many similarities with Bosse's and Coughlan's (2016) commitment and identification bonds as well as Polonsky et al.'s (2002) cooperative relationship orientation. EM relates closely to Onkila's (2011) collaborative relationship as it highlights the equality and joint responsibility of the organization and the stakeholder. AR corresponds to Frooman's (1999) conceptualizations of firm-power or stakeholder-power relationships and Onkila's (2011) power-based relationship. MP parallels Bosse's and Coughlan's (2016) acquiescence and instrumental bonds as well as Polonsky et al.'s (2002) individualistic relationship orientation.

Management scholars have applied relational models theory to relationships that are interpersonal, interorganizational and between individuals and organizations (Bridoux & Stoelhorst, 2016). In terms of research fields, the theory has found entrance into human resource management (Connelley & Folger, 2004; Mossholder, Richardson, & Settoon, 2011), leadership (Giessner & Van Quaquebeke, 2010; Wellman, 2017), organizational behavior (Sheppard & Tuchinsky, 1996), and stakeholder theory (Bridoux & Stoelhorst, 2016; Jones et al., 2018). With specific regard to stakeholder theory, Bridoux and Stoelhorst (2016) use relational models theory to explain how stakeholders contribute to joint value creation in public good dilemmas with high task and outcome interdependence. The authors argue that stakeholders' contributions depend on their relational model with respect to the organization, which is contingent, among other things, on the perceived behavior of the organization. Jones et al. (2018) theorize that organizations with a relational ethics strategy based on CS develop sustainable competitive advantage in the market place. According to these authors, a CS relational ethics strategy leads to a close relationship capability, which is valuable, rare, and difficult to imitate and thereby may potentially result in competitive advantage.

To sum up, we specify the content of the index of stakeholder relationship types by referring to the relational model of the stakeholder and the organization, which means the mental representation that both parties use for their relationship. The four

relational models represent the most important building blocks of relationships between social actors and, specifically, between stakeholders and organizations.

3.3.2 Indicator Specification

The second critical issue of index construction refers to developing the indicators of the measure (Diamantopoulos & Winklhofer, 2001; Hair, Hult, Ringle, & Sarstedt, 2017). The objective of indicator specification is that the resulting items cover the entire content and scope of the latent construct, otherwise the index will not correctly represent the underlying construct (Diamantopoulos & Winklhofer, 2001; Hair, Hult, Ringle, & Sarstedt, 2017). As the pool of potential indicators should be as inclusive as possible, we reviewed the literature on relational models theory with the goal of identifying existing measures in this field. In our search, we found the scale by Haslam and Fiske (1999) and took it as a starting point of indicator specification (see Appendix D).

Haslam's and Fiske's (1999) scale contains 33 items that divide into the four relational models with eight items each (EM with nine items). Every item describes how a respective relational model manifests itself in one domain of social life or social interaction. While Fiske (1992) originally uses more domains to present his framework of social relations, Haslam and Fiske (1999) choose the following eight domains when specifying the relational models in the form of items: (1) exchange of resources, (2) distribution and use of resources, (3) work, (4) morals, (5) decision-making, (6) social influence, (7) social identity, and (8) miscellaneous. Haslam and Fiske (1999) do not give any specific reasons for choosing those eight domains but claim that they capture the essence of the relational models. The concrete manifestation of a relational model in a domain follows the logic and characteristics of the model according to the descriptions in Chapter 3.3.1 and Table 25.

As the original items referred to social relationships in general, we adapted them to the context of the relationship between an organization and an individual stakeholder. For this purpose, it was important that a domain would apply regardless of the stakeholder type (employee, customer, owner etc.). With this consideration in

mind, we chose to merge the domains (1) exchange of resources and (2) distribution and use of resources into a single domain because not all stakeholder relationships necessarily include both of these aspects. For instance, a customer relationship is more about the exchange of resources (e.g., money against goods) than the distribution and use of resources, whereas the latter aspect is relatively more salient in a shareholder relationship (e.g., distribution of annual profits in the form of stock dividends). In the new domain named "exchange and distribution of resources," we had two potential items per relational model of which we selected the indicator that we regarded more suitable to the general context of stakeholder relationships. Further, we excluded the domain (3) work since organizations usually only have labor relations with employees but not most types of stakeholders (e.g., competitors or governments). The domain (4) morals not only applies to all stakeholder types but beyond that also exhibits a central aspect in organization-stakeholder relationships as evidenced by normative stakeholder theory (Freeman, 1999; Jones & Wicks, 1999). Similarly, we kept the domain (5) decision-making because it generally fits all stakeholder types and did not require fundamental adaptation (or merging). For the same reason that we merged the two resource-related domains, we also consolidated the domains (6) social influence and (7) social identity: in some stakeholder relationships influence and power are particularly salient (Mitchell et al., 1997), while in others the social identity of the relational partners is the driving factor (Rowley & Moldoveanu, 2003; Schneider & Sachs, 2017). In the new category named "social influence and identity," we retained the one of two potential items that appeared more suitable to all types of stakeholder relationships. We chose to keep the final domain (8) miscellaneous because it describes the relationship on a general level without a specific theme or aspect. However, we did not use this item as part of our final index but as a global item that summarizes the essence of a relational model, which is necessary for assessing the convergent validity of the index (Hair, Hult, Ringle, & Sarstedt, 2017; Hair et al., 2018).

There was a number of additional necessary adjustments that did not refer specifically to the eight domains of the relational models. As for AR, the remaining

items in the domains "social influence and identity" as well as "miscellaneous" contained the wording of a hierarchical leader-follower relationship. This wording would only be suitable if the stakeholder was an employee but not necessarily in other cases. For this reason, we reformulated these two items so that they would be more generally applicable. Instead of words such as leader or hierarchy, we used the concepts of power, influence, and dependency, which refer to common attributes of stakeholders and focal organizations (e.g., Mitchell et al., 1997). Furthermore, one item of MP stated that one party "often pay[s] the other one to do something." As relationships with some stakeholder types (e.g., regulators) do not necessarily involve payments or monetary transactions, we chose to change the wording to "have a predominantly economic exchange relationship," which includes a wider range of possible exchanges.

To adapt the original items to the context of the relationship between an organization and a stakeholder, we additionally altered the item wording from the initial plural "you" to the phrasing "the stakeholder and my organization." We chose this wording from the perspective of a manager because we designed the indicators to survey organizations and not stakeholders.[22] In practice, this approach has the advantage of easier data access as researchers can ask an organizational key informant about numerous stakeholder relationships and thereby does not have to consult each stakeholder individually. This approach also gives evidence about the relational model that the respective stakeholder uses because model choice tends to be congruent between the organization and the stakeholder (Fiske, 1991, 1992). If there is a transgression in the sense that one relational party behaves differently than expected by the other party, the latter will switch to the relational model that corresponds to this behavior and thereby restore congruence (Bridoux & Stoelhorst, 2016).

[22] In order to survey individual stakeholders, managers or scholars could also change the wording of the items to "[name of focal organization] and me" (where "me" refers to the respective stakeholder).

The previous steps and adaptations produced 16 items of the relational models index and four indicators for the assessment of convergent validity (see Table 26). Each relational model features an item in the following five domains: (1) exchange and distribution of resources, (2) morals, (3) decision-making, (4) social influence and identity, and (5) miscellaneous.

Communal Sharing

(1) Much that the stakeholder and my organization use belongs to both of them, not to either one separately. (CS1)

(2) The stakeholder and my organization feel a moral obligation to be kind and compassionate to each other. (CS2)

(3) The stakeholder and my organization make decisions together by consensus. (CS3)

(4) The stakeholder and my organization tend to develop very similar attitudes and values. (CS4)

(5) The stakeholder and my organization are a unit: they belong together. (CS5)

Equality Matching

(1) The stakeholder and my organization typically divide everything up into shares that are the same size. (EM1)

(2) The stakeholder and my organization have a right to equal treatment. (EM2)

(3) The stakeholder and my organization make decisions under the principle of "one-party, one-vote." (EM3)

(4) The stakeholder and my organization consider each other partners. (EM4)

(5) The stakeholder and my organization have even chances. (EM5)

Authority Ranking

(1) The stakeholder or my organization sometimes has to turn over something to the other who does not necessarily have to give it back. (AR1)

(2) In some respects, the stakeholder or my organization is entitled to more than the other one and should be treated with special respect. (AR2)

(3) The stakeholder or my organization makes the decisions and the other one generally goes along. (AR3)

(4) The stakeholder or my organization has more power and influence over the other one than vice-versa. (AR4)

(5) The stakeholder or my organization is dependent on the other. (AR5)

Market Pricing
(1) The stakeholder and my organization divide everything up according to how much each has paid or contributed. (MP1)
(2) The stakeholder and my organization have a right to a fair rate of return for what they put into this interaction. (MP2)
(3) In this relationship, the stakeholder and my organization make decisions according to a cost-benefit analysis. (MP3)
(4) The stakeholder and my organization have a predominantly economic exchange relationship. (MP4)
(5) The interaction between the stakeholder and my organization is strictly rational: they each calculate what their payoffs are and act accordingly. (MP5)

(1) exchange and distribution of resources, (2) morals, (3) decision-making, (4) social influence and identity, (5) miscellaneous [as global item for assessment of convergent validity]

Table 26: Items of Stakeholder Relationship Type Index

With the results of content and indicator specification, we outlined the index of stakeholder relationship types as a hierarchical component model, which contains four lower-order constructs and one higher-order construct (Becker et al., 2012; Ringle et al., 2012). The four lower-order constructs are the relational models CS, EM, AR, and MP that specify and form the higher-order construct (overall relational model). Each lower-order construct contains four manifest indicators.

The relationships between the manifest indicators and their respective lower-order construct as well as between the four lower-order and the higher-order construct reveal why the overall model is rather of formative than of reflective nature.[23] First, the items and their domains constitute defining characteristics of the four relational models and the combination of the latter defines the overall relational model, which are indications for a formative-formative model (Hair et al., 2018; Jarvis et al., 2003). For example, CS consists of sharing of resources (CS1), kindness and compassion (CS2), consensual decision-making (CS3), and similar attitudes and

[23] For a detailed distinction between reflective and formative constructs, see Jarvis et al. (2003) and Diamantopoulos and Winklhofer (2001).

values (CS4). These characteristics do not share a common theme in a strict sense but refer to different aspects (domains) of a relational model, which is the second indication of a formative measurement model (Jarvis et al., 2003). Similarly, the four relational models have very different themes and, as described above, relational partners use them as building blocks to form the overall relationship model (higher-order construct). Third and finally, we would expect neither the indicators not the lower-order constructs to covary necessarily with each other, which is indicative of a formative rather than a reflective measurement model (Jarvis et al., 2003). For instance, sharing of resources (CS1) does not automatically imply consensual decision-making (CS3).

In their paper, Haslam and Fiske (1999) treat the relational models as reflective measures (scales) and subject them to confirmatory factor analysis. Since they do not give any reasons for the reflective specification and as most social scientist have not considered the possibility of formative constructs in the past (Diamantopoulos & Winklhofer, 2001; Jarvis et al., 2003), this measurement model may likely suffer from misspecification. For the mentioned reasons, we deem an index more suitable to specify relational models theory in a measurement model and thereby correct Haslam's and Fiske's misspecification.

Further, the hierarchical component model that we have developed above required an assessment of the remaining critical issues and evaluation criteria (convergent validity, collinearity, indicator significance and relevance) on the level of the four lower-order constructs as well as the higher-order construct (Hair et al., 2018). For this purpose, we conducted two quantitative studies, whose methods and results we present in the following.

3.3.3 Convergent Validity, Collinearity, and Indicator Significance and Relevance

3.3.3.1 Study 1

Data Collection. To collect the data of the first study, we used the key informant survey that we described in Chapter 2.3.3.1. This survey targeted organizational representatives who have cross-functional positions and therefore manage numerous and diverse stakeholder relationships of their organization. The target population comprise key informants of 681 organizations in Germany, Switzerland, and Austria. We identified the organizations predominantly via the Sustainability Disclosure Database by the Global Reporting Initiative (GRI). Before collecting data, we translated the items of the index into German and counterchecked our translations by having a third person translate them back into English. Additionally, we subjected the items to a two-phase pretest (Prüfer & Rexroth, 2000) with university students including a cognitive and a standard phase. In the questionnaire, we asked key informants to rate the relationship with an individual stakeholder of their choice (see questionnaire in Appendix C) on the basis of the index indicators. In terms of item scoring, we chose a seven-point Likert scale from one (strongly disagree) to seven (strongly agree). Apart for relational models items, we collected data on four global items to evaluate convergent validity and on various control variables. Study 1 did not include the indicators on the domain of decision-making (CS3, EM3, AR3, and MP3), which we added afterwards to increase the coverage of each lower-order construct's theoretical domain and thereby the validity of the lower-order constructs (Hair et al., 2014). Out of the 681 targeted key informants, 113 participants responded and fully completed the survey.

Data Analysis. For data analysis, we used the software packages IBM SPSS Statistics 25 and SmartPLS 3.0. We modeled the index with structural equations based on partial least squares (PLS-SEM) because the hierarchical component model consists of formatively measured constructs (Sarstedt et al., 2016). Furthermore, we specified our model with the repeated indicators approach (Hair et al., 2018). To

estimate outer weights, we used Mode B for each latent construct and chose factor weighting for the inner weighting scheme of the model (Becker et al., 2012; Hair et al., 2018). Bootstrapping involved ten thousand subsamples as well as bias-corrected and accelerated bootstrap confidence intervals to adjust for potential distributional bias and skewness (Hair, Hult, Ringle, & Sarstedt, 2017). We screened the data for missing values, unengaged responses, outliers, and normality (skewness and kurtosis), whereby we detected one respondent who appeared to be unengaged because they gave the same rating to each index indicator. For this reason, we chose to remove this participant from the data set. Apart from that, data screening did not point to any other problematic issues as there were no missing values and the indicators had relatively low values for skewness and kurtosis (maximum ±1.5). Thus, our final sample exhibits virtually the same characteristics as shown in Table 12.

In terms of potential non-response bias, we tested if early and late responders had significantly different latent variable scores of the four relational models. The Student's *t*-tests revealed no significant differences between the two groups suggesting that non-response bias does not apply to our study. Regarding common method bias, PLS-SEM requires to assess whether there is collinearity between the latent constructs of a model – in our case the four lower-order constructs of the hierarchical component model (Kock, 2015; Kock & Lynn, 2012). We address collinearity in the following as part of the index construction process and show that this issue is not problematic. Therefore, our data indicates an absence of common method bias.

Table 27 contains the descriptive statistics (mean and standard deviation) and the bivariate correlations of all relational model items including the additional indicators to assess convergent validity (in square brackets). EM1 exhibited the lowest mean with a value of 2.33 and EM2 had the highest mean with 5.67. Standard deviations ranged from 1.56 for EM4 to 2.28 for CS1. The lowest bivariate correlation was between AR2 and EM2 (-.16), whereas the highest bivariate correlation was between CS1 and EM1 (0.63).

Convergent Validity. Convergent validity refers to the extent to which a set of items relates to the same construct. We assessed convergent validity by correlating (the indicators of) each lower-order construct with the global, fifth item of the respective relational model. The lower-order construct CS showed a correlation with CS5 in the magnitude of 0.52, for which bootstrapping with ten thousand subsamples produced a bias-corrected and accelerated bootstrap confidence interval between 0.35 and 0.64 (95 percent). In the case of the lower-order construct EM, our redundancy analysis yielded a correlation with EM5 of 0.42 as well as a lower boundary of 0.24 and an upper boundary of 0.54 for the bootstrap confidence interval. The lower-order construct AR correlated with AR5 in the magnitude of 0.53 with a bootstrap confidence interval between 0.36 and 0.64. The redundancy analysis of the lower-order construct MP revealed a correlation with MP5 of 0.47 and a bootstrap confidence interval with a lower boundary of 0.28 and an upper boundary of 0.60. Although none of the correlations reached the magnitude of 0.70 that Hair et al. (2017) recommend, they are all statistically significant at a one-percent level and therefore indicate some extent of convergent validity. On the level of the higher-order construct, the assessment of convergent validity posed a challenge because the overall relational models construct is formed by the four lower-order constructs and does not exist independently of them. For this reason, the higher-order relational models construct is unique in its nature and differs from other measures in prior research. As a second-best solution, we correlated the higher-order construct with a reflective measure that describes the personal initiative of the stakeholder in the relationship (cf. Chapter 2.3.4) because we expect personal initiative to be inherent in the four relational models. For instance, the salience of common identity in CS is likely to involve relatively high personal initiative, whereas the focus on self-interest and cost-benefit considerations in MP is probably associated with lower levels of personal initiative. For the items of this measure, we used an adjusted version of the personal initiative scale by Frese et al. (1997) that fits the context of a relationship between an organization and an individual stakeholder (see items in Appendix E).

Item	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1 CS1	3.44	2.28	1.00															
2 CS2	5.55	1.60	0.23	1.00														
3 CS4	4.94	1.65	0.27	0.42	1.00													
4 [CS5]	3.19	2.26	0.36	0.18	0.31	1.00												
5 EM1	2.33	1.74	0.63	0.16	0.18	0.35	1.00											
6 EM2	5.67	1.68	0.05	0.41	0.27	0.09	0.07	1.00										
7 EM4	5.29	1.56	0.10	0.41	0.46	0.18	0.10	0.16	1.00									
8 [EM5]	3.96	1.73	0.32	0.21	0.34	0.44	0.28	0.17	0.13	1.00								
9 AR1	3.34	2.12	0.37	0.08	0.01	0.12	0.39	0.03	-.05	0.16	1.00							
10 AR2	2.85	1.88	0.15	-.15	0.02	0.11	0.21	-.16	-.05	0.00	0.26	1.00						
11 AR4	3.94	1.92	0.11	-.12	-.08	0.15	0.20	-.09	-.07	-.09	0.22	0.32	1.00					
12 [AR5]	4.12	2.14	0.29	0.00	0.12	0.32	0.34	-.02	0.04	0.18	0.21	0.24	0.41	1.00				
13 MP1	2.58	1.84	0.48	0.26	0.28	0.29	0.60	0.10	0.20	0.30	0.31	0.15	0.21	0.31	1.00			
14 MP2	4.32	2.23	0.24	0.23	0.28	0.20	0.23	0.23	0.24	0.19	0.08	0.06	0.05	0.24	0.28	1.00		
15 MP4	3.45	2.02	0.23	0.08	0.17	0.18	0.24	-.02	0.14	0.09	0.13	0.22	0.22	0.31	0.37	0.29	1.00	
16 [MP5]	4.01	1.79	0.20	0.05	0.08	0.07	0.20	-.05	0.09	0.11	0.27	0.20	0.22	0.24	0.24	0.22	0.35	1.00

Table 27: Descriptive Statistics and Inter-Item Correlation (Study 1)

Our redundancy analysis produced a correlation between the higher-order construct and the measure of personal initiative of 0.55. Bootstrapping with ten thousand subsamples showed a bootstrap confidence interval with a lower boundary of 0.29 and an upper boundary of 0.67. This correlation falls short of the 0.70 recommended by Hair et al. (2017) but is statistically significant at a level of one percent, which suggests some degree of convergent validity concerning the higher-order construct.

Collinearity. For the assessment of collinearity, we inspected possible predictive relationships between indicators on the basis of the bivariate correlations and the variance inflation factors (VIFs) of the items (Diamantopoulos & Winklhofer, 2001; Hair et al., 2014; Hair, Hult, Ringle, & Sarstedt, 2017). As a first indication, bivariate correlations above a coefficient value of 0.70 are likely to point to collinearity issues between items. In our sample, the highest correlations were between CS1 and EM1 (0.63) as well as EM1 and MP1 (0.60). Although none of these correlations was above 0.70, we decided to monitor EM1 during the further course of index construction because this indicator exhibited moderately positive relationships with two other items (CS1 and MP1). On the construct level, the correlation between CS and EM showed a coefficient value of 0.68 and a bootstrap confidence interval with a lower boundary of 0.54 and an upper boundary of 0.76. This result indicates potential collinearity between the two lower-order constructs because the coefficient is not significantly different from the 0.70 cut-off point. However, all other bivariate correlations between the lower-order constructs remained below the threshold value.

To double-check these results, we inspected the variance inflation factor (VIF) of each item and each lower-order construct. We chose a conservative threshold and considered values above three indicative of collinearity (Hair et al., 2014). Table 28 shows that the VIFs of the index items ranged from 1.36 for MP2 to 2.28 for EM1, whereas the VIFs of the lower-order constructs went from 1.23 for AR to 2.11 for EM. These results refuted the collinearity indications of the correlation analysis. As all VIFs remained below the threshold value of three, we can rule out any collinearity issues.

CS		EM		AR		MP		Constructs	
CS1	2.21	EM1	2.28	AR1	1.43	MP1	1.90	CS	2.01
CS2	1.86	EM2	1.39	AR2	1.42	MP2	1.36	EM	2.11
CS4	1.89	EM4	1.61	AR4	1.37	MP4	1.43	AR	1.23
								MP	1.63

Table 28: Variance Inflation Factors (Study 1)

Indicator Significance and Relevance. The significance and relevance of each indicator relate to the relative and absolute contribution to forming the construct (Hair, Hult, Ringle, & Sarstedt, 2017; Ringle et al., 2018). An item's outer weights indicates its relative contribution to the construct and needs to be significantly different from zero in order to prove as relevant (Hair, Hult, Ringle, & Sarstedt, 2017; Ringle et al., 2018). On the construct level, the coefficient of the path from a lower-order construct to the higher-order construct represents its outer weights and evidences the lower-order construct's relative contribution if the coefficient significantly differs from zero (Becker et al., 2012; Hair et al., 2018).

In Table 29, we show each item's outer weights estimate, their *t*-statistics, *p*-values, and 95% bias-corrected and accelerated bootstrap confidence interval (threshold values for 2.5% and 97.5%). The confidence intervals of four indicators (CS1, EM1, AR1, and MP1) did not include zero, which suggests that their outer weights are significantly different from zero. On the construct level, the four paths from the lower-order constructs to the higher-order construct had bootstrap confidence intervals that excluded zero and therefore indicated statistical significance (CS: [0.31, 0.40], EM: [0.32, 0.40], AR: [0.16, 0.30], MP: [0.29, 0.37]). In combination with the results regarding convergent validity and collinearity, the higher-order construct fulfills all standard evaluation criteria of index construction and its assessment is complete.

Item	Outer Weight	*t*-Statistic	*p*-Value	Confidence Interval
CS1	0.92	7.35	0.01	[0.66, 1.04]
CS2	0.14	0.86	0.39	[-.17, 0.50]
CS4	0.08	0.48	0.63	[-.28, 0.36]
EM1	0.97	9.00	0.01	[0.77, 1.03]
EM2	0.04	0.23	0.82	[-.30, 0.37]
EM4	0.12	0.71	0.48	[-.19, 0.46]
AR1	0.89	5.49	0.01	[0.57, 1.06]
AR2	0.06	0.22	0.82	[-.55, 0.56]
AR4	0.24	0.98	0.33	[-.28, 0.66]
MP1	0.91	7.86	0.01	[0.69, 1.08]
MP2	0.19	1.04	0.30	[-.21, 0.51]
MP4	0.01	0.06	0.95	[-.32, 0.43]

Table 29: Outer Weights Significance Testing Results (Study 1)

Apart for the *relative* contribution in the form the outer weight, the significance and relevance of an indicator relate also to its *absolute* contribution to forming the construct (Hair, Hult, Ringle, & Sarstedt, 2017; Ringle et al., 2018). To assess the absolute contribution of an indicator, we inspected its outer loading, which equates to the bivariate correlation between the indicator and its lower-order construct (Hair, Hult, Ringle, & Sarstedt, 2017). For a relevant absolute contribution to forming the respective lower-order construct, an indicator's outer loading needs to have a high value (≥ 0.50) or exhibit statistical significance (Hair, Hult, Ringle, & Sarstedt, 2017).

Table 30 contains each indicator's outer loadings estimates, their *t*-statistics, *p*-values, and 95% bias-corrected and accelerated bootstrap confidence intervals for

significance testing. Besides the four indicators that exhibited high relative contributions in the form of significant outer weights (CS1, EM1, AR1, and MP1), there is one more item with a high loading (MP2). In terms of confidence intervals, also CS4 and MP4 were statistically significant and therefore contributed to their respective lower-order construct in an absolute sense. However, the outer loadings of the indicators CS2 and AR4 featured significant *p*-values but had confidence intervals that included zero. Hence, CS2 and AR4 did not show an absolute contribution to forming their respective lower-order construct. Overall, seven indicators exhibited significance and sufficient relevance, whereas five items had neither a significant outer weight, nor a significant or high outer loading (CS2, EM2, EM4, AR2, and AR4). We tested the reliability of our results by conducting a second study that included the previous indicators and additionally the item of the domain on decision-making in each relational model.

Item	**Outer Loading**	***t*-Statistic**	***p*-Value**	**Confidence Interval**
CS1	0.98	12.70	0.01	[0.91, 1.00]
CS2	0.43	2.24	0.03	[-.03, 0.74]
CS4	0.44	2.44	0.02	[0.01, 0.72]
EM1	0.99	12.92	0.01	[0.96, 1.00]
EM2	0.22	1.18	0.24	[-.18, 0.56]
EM4	0.30	1.62	0.11	[-.10, 0.62]
AR1	0.97	7.86	0.01	[0.87, 1.00]
AR2	0.44	1.68	0.09	[-.15, 0.81]
AR4	0.49	2.08	0.04	[-.06, 0.82]
MP1	0.98	15.35	0.01	[0.93, 1.00]
MP2	0.52	3.18	0.01	[0.12, 0.76]
MP4	0.44	2.76	0.01	[0.10, 0.71]

Table 30: Outer Loadings Significance Testing Results (Study 1)

3.3.3.2 Study 2

Data Collection. For our second study, we used the data of the Prolific Academic online survey that we described in Chapter 2.3.3.2. This study targeted participants who are full-time employees in organizations because we needed respondents to have professional exposure to stakeholders. In the Prolific Academic database, we identified a pool of 4,137 potential participants from the USA, Australia, and Canada who spoke English and fulfilled or screening criteria. Our questionnaire required subjects to think of an individual stakeholder with whom they have a relationship in the context of their professional occupation and to rate this relationship on the basis of the 20 relational model items (see questionnaire in Appendix C). Out of the pool of potential participants, 533 respondents accessed the introduction page of our study and thereby formed the sample for our data analysis.

Data Analysis. As a first step of data analysis, we screened the data for completeness (no missing values), unengaged respondents, outliers, and normality (no skewness or excess kurtosis). This process reduced the 533 potential subjects to a final sample of 394 participants (see Chapter 2.3.3.2). We have displayed the characteristics of this sample in Table 17. For data analysis, we used structural equation modeling with partial least squares (PLS-SEM) and specified our hierarchical component model with the repeated indicators approach (Hair et al., 2018). We estimated outer weights with Mode B for each latent construct and selected factor weighting for the inner weighting scheme of the model (Becker et al., 2012; Hair et al., 2018). Our bootstrapping estimations were based on ten thousand subsamples and included bias-corrected and accelerated bootstrap confidence intervals, which we used for the purpose of significance testing as those confidence intervals correct for potential distributional bias and skewness (Hair, Hult, Ringle, & Sarstedt, 2017).

The presence of non-response bias was unlikely since the share of respondents who completed the questionnaire among all subjects who accessed our study was relatively high (80 percent) (cf. Paolacci et al., 2010). Furthermore, we did not find any indication for potential common method bias as there were no collinearity issues

between the latent constructs in our model (Kock, 2015; Kock & Lynn, 2012). Below, we elaborate on the assessment of collinearity in the course of our index construction.

In Table 31, we show the descriptive statistics and the bivariate correlations of the 20 relational model items including the additional indicators to assess convergent validity (in square brackets). The range of mean values went from 3.25 for EM1 to 5.74 for EM2 and standard deviations were between 1.41 for MP2 and 1.90 for AR2. The bivariate correlations of the 20 items ranged from -.13 between CS3 and AR4 to 0.48 between CS2 and EM2, CS4 and EM4 as well as CS5 and EM5.

Convergent Validity. To assess convergent validity, we correlated each lower-order construct including its respective four indicators (e.g., CS1 through CS4) with the fifth, global item of that relational model (e.g., CS5). The correlation between the lower-order construct CS and the item CS5 had a point estimate of 0.56 and a 95% bias-corrected and accelerated bootstrap confidence interval with a lower boundary of 0.47 and an upper boundary of 0.63. The lower-order construct EM correlated with EM5 in the magnitude of 0.62 with a bootstrap confidence interval between 0.54 and 0.68. The redundancy analysis of the lower-order construct AR showed a correlation with AR5 of 0.26 and a bootstrap confidence interval with a lower boundary of 0.13 and an upper boundary of 0.36. The correlation between the lower-order construct MP and the item MP5 had a magnitude of 0.64 and a bootstrap confidence interval between 0.56 and 0.71. This last result does not significantly differ from the 0.70 threshold recommended by Hair et al. (2017) and also the findings regarding CS and EM indicate some extent of convergent validity (cf. Study 1). The result concerning AR (0.26) was insufficient, which was higher in the first study (0.53) but did not change if we removed the item AR3 that was added in the second study. For this reason, we assumed the difference between the two studies to be due to sample specifics. Furthermore, we correlated the higher-order construct with the reflective measure of stakeholder initiative (cf. Study 1), which yielded a correlation of 0.73 and a bootstrap confidence interval with a lower boundary of 0.66 and an upper boundary of 0.78. Thus, the relational models construct converges to a

Item	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1 CS1	4.04	1.85	1.00																			
2 CS2	5.21	1.53	0.23	1.00																		
3 CS3	4.11	1.86	0.41	0.30	1.00																	
4 CS4	4.92	1.45	0.23	0.42	0.40	1.00																
5 [CS5]	4.73	1.72	0.26	0.37	0.34	0.39	1.00															
6 EM1	3.25	1.78	0.43	0.06	0.37	0.18	0.25	1.00														
7 EM2	5.74	1.42	0.05	0.48	0.14	0.28	0.27	-.05	1.00													
8 EM3	3.58	1.78	0.33	0.12	0.37	0.26	0.21	0.43	0.00	1.00												
9 EM4	5.06	1.64	0.25	0.35	0.46	0.48	0.43	0.18	0.32	0.22	1.00											
10 [EM5]	4.21	1.70	0.32	0.29	0.43	0.39	0.48	0.32	0.20	0.34	0.43	1.00										
11 AR1	4.07	1.79	0.09	0.11	0.09	0.07	0.10	0.12	0.02	0.16	0.08	0.06	1.00									
12 AR2	4.03	1.90	0.09	0.12	0.07	0.14	0.15	0.11	-.05	0.15	0.01	0.14	0.24	1.00								
13 AR3	4.63	1.68	0.02	0.05	-.10	0.00	0.09	0.01	0.04	0.08	-.08	-.08	0.15	0.26	1.00							
14 AR4	4.77	1.72	-.01	0.05	-.13	0.07	0.07	-.05	0.04	0.00	-.03	-.08	0.20	0.24	0.39	1.00						
15 [AR5]	5.25	1.61	0.11	0.27	0.10	0.19	0.38	-.03	0.29	0.04	0.26	0.21	0.10	0.10	0.16	0.23	1.00					
16 MP1	3.74	1.88	0.31	0.08	0.33	0.24	0.20	0.38	0.08	0.38	0.21	0.33	0.19	0.14	0.01	-.05	0.00	1.00				
17 MP2	5.43	1.41	0.10	0.33	0.21	0.30	0.28	0.00	0.39	0.10	0.27	0.24	0.15	0.14	0.13	0.10	0.31	0.16	1.00			
18 MP3	4.76	1.64	0.15	0.07	0.29	0.26	0.21	0.15	0.16	0.20	0.22	0.19	0.12	0.13	0.12	0.06	0.16	0.27	0.28	1.00		
19 MP4	4.80	1.77	0.08	0.08	0.19	0.24	0.10	0.02	0.20	0.14	0.16	0.10	0.09	0.10	0.19	0.14	0.17	0.18	0.24	0.28	1.00	
20 [MP5]	4.63	1.70	0.14	0.14	0.24	0.26	0.18	0.12	0.25	0.22	0.25	0.24	0.10	0.12	0.11	0.10	0.17	0.32	0.26	0.34	0.46	1.00

Table 31: Descriptive Statistics and Inter-Item Correlations (Study 2)

high extent with the theoretically related personal initiative of the stakeholder towards the organization.

Collinearity. In the first step of collinearity assessment, we examined the bivariate correlations of the 16 relational models items. The highest correlations were between CS2 and EM2 as well as CS4 and EM4 with a magnitude of 0.48, which constitutes a moderate positive relationship but is not indicative of any collinearity issues. Regarding the lower-order constructs, CS and EM correlated with a magnitude of 0.74 (bootstrap confidence interval with a lower boundary of 0.67 and an upper boundary of 0.79). While this result points to potential collinearity between CS and EM, the bivariate correlations of all other lower-order constructs and their confidence intervals were below the 0.70 cut-off point. In the second step of collinearity assessment, we inspectedthe variance inflation factor (VIF) of each item and each lower-order construct. In Table 32, we see that the VIFs of the 16 manifest indicators went from 1.23 for AR1 to 2.37 for CS3, which indicates no problematic collinearity. The VIFs of the lower-order constructs ranged from 1.12 for AR to 2.46 for EM and thus suggested no collinearity issues, either. Overall, the hierarchical component model showed no signs of problematic collinearity.

CS		EM		AR		MP		Constructs	
CS1	1.63	EM1	1.75	AR1	1.23	MP1	1.65	CS	2.29
CS2	2.00	EM2	1.89	AR2	1.34	MP2	1.56	EM	2.46
CS3	2.37	EM3	1.67	AR3	1.42	MP3	1.47	AR	1.12
CS4	1.87	EM4	1.85	AR4	1.45	MP4	1.34	MP	1.71

Table 32: Variance Inflation Factors (Study 2)

Indicator Significance and Relevance. To assess the significance and relevance of index indicators, we first calculated their outer weights as an indication

for each item's relative contribution to forming the respective lower-order construct. Table 33 contains the indicators' outer weights estimates, their *t*-statistics, *p*-values, and 95% bias-corrected and accelerated bootstrap confidence intervals (threshold values for 2.5% and 97.5%). Thirteen out of 16 items had outer weights with confidence intervals that excluded zero and therefore suggested a significant relative contribution of the item to the respective lower-order construct. Conversely, the items CS2, AR3, and MP4 did not indicate a significant contribution in the relative sense. The bootstrap confidence intervals of the four path coefficients from the lower-order constructs to the higher-order construct did not include zero (CS: [0.34, 0.38], EM: [0.35, 0.39], AR: [0.14, 0.23], MP: [0.33, 0.36]). This finding suggests a significant relative contribution of the four lower-order constructs to forming the higher-order construct. As the higher-order construct fulfills all standard evaluation criteria of index construction, the assessment of the higher-order construct is complete.

In the second step of assessing the significance and relevance of index indicators, we calculated their outer loadings to inspect each item's absolute contribution to its respective lower-order construct. Table 34 shows the indicators' outer loadings estimates, *t*-statistics, *p*-values, and the 95% bias-corrected and accelerated bootstrap confidence intervals. Eleven out of 16 outer loadings exhibited higher values than 0.50 and therefore suggested high relative contributions of the respective items. Additionally, three indicators showed confidence intervals excluding zero, although their loading was below the 0.50 threshold. Overall, two items (AR3 and AR4) fulfilled neither of the two criteria and thus made no absolute contribution to forming their lower-order construct.

3.3.4 Index Characteristics and Further Analysis

In this chapter, we developed an index on stakeholder relationship types. In this process, we specified the index content and indicators, tested convergent validity, assessed collinearity, and evaluated indicator significance and relevance. The index is based on a hierarchical component model that includes the four relational models

Item	Outer Weight	*t*-Statistic	*p*-Value	Confidence Interval
CS1	0.28	3.20	0.01	[0.12, 0.46]
CS2	0.03	0.24	0.81	[-.20, 0.27]
CS3	0.57	6.61	0.01	[0.40, 0.74]
CS4	0.38	5.24	0.01	[0.24, 0.52]
EM1	0.38	4.73	0.01	[0.23, 0.54]
EM2	0.22	2.02	0.04	[0.03, 0.44]
EM3	0.45	6.37	0.01	[0.32, 0.59]
EM4	0.42	6.13	0.01	[0.29, 0.56]
AR1	0.74	5.62	0.01	[0.49, 0.96]
AR2	0.56	3.52	0.01	[0.26, 0.86]
AR3	0.00	0.02	0.99	[-.40, 0.33]
AR4	-.50	2.52	0.01	[-.86, -.09]
MP1	0.70	8.58	0.01	[0.54, 0.84]
MP2	0.30	2.53	0.01	[0.06, 0.54]
MP3	0.29	3.33	0.01	[0.12, 0.46]
MP4	0.07	0.85	0.40	[-.10, 0.23]

Table 33: Outer Weights Significance Testing Results (Study 2)

by Fiske (1991, 1992) as lower-order constructs with each four manifest indicators for a total of 16 items. Although two indicators, namely AR3 and AR4, did not produce significant results, we chose to retain these indicators since they cover two theoretically important domains of their relational model (AR3: decision-making; AR4: social influence and identity). Without these two items, the index would only include resource-related and moral aspects of AR and therefore would not cover the entire content and scope of this relational model. In this case, the index would not correctly operationalize the underlying theoretical construct (Diamantopoulos & Winklhofer, 2001; Hair, Hult, Ringle, & Sarstedt, 2017).

Item	Outer Loading	*t*-Statistic	*p*-Value	Confidence Interval
CS1	0.68	9.99	0.01	[0.55, 0.80]
CS2	0.48	4.20	0.01	[0.25, 0.69]
CS3	0.90	25.34	0.01	[0.83, 0.96]
CS4	0.74	10.87	0.01	[0.59, 0.85]
EM1	0.72	9.79	0.01	[0.56, 0.84]
EM2	0.38	3.06	0.01	[0.14, 0.62]
EM3	0.76	11.94	0.01	[0.62, 0.86]
EM4	0.73	12.55	0.01	[0.60, 0.82]
AR1	0.78	6.49	0.01	[0.55, 0.95]
AR2	0.62	4.01	0.01	[0.30, 0.87]
AR3	0.09	0.42	0.67	[-.33, 0.47]
AR4	-.16	0.71	0.48	[-.56, 0.30]
MP1	0.88	16.68	0.01	[0.77, 0.96]
MP2	0.56	4.96	0.01	[0.32, 0.76]
MP3	0.65	9.96	0.01	[0.52, 0.77]
MP4	0.43	4.78	0.01	[0.24, 0.59]

Table 34: Outer Loadings Significance Testing Results (Study 2)

After constructing the index, we inspected the latent variable scores on a case basis. Specifically, we examined the scores of the lower-order constructs because the score of the higher-order construct is hardly interpretable as it represents a combination of the four relational models. In the first study, CS ranged from 1.17 to 7.00, EM from 1.03 to 7.00, and AR as well as MP from 1.00 to 7.00. In the second study, the scores of all lower-order constructs went from 1.00 to 7.00. From those scores, we conclude that there are no empirical range restrictions of the lower-order constructs. In other words, the index effectively distinguishes between different types of relationships between an organization and an individual stakeholder.

We also inspected the relationship of the index with characteristics of organizations, their representatives (our subjects), and stakeholder relationships. For this purpose, Table 35 displays correlations with selected variables, their *t*-statistics, *p*-values, and 95% bias-corrected and accelerated bootstrap confidence intervals for both studies. Regarding the first study, none of the characteristics exhibited a significant correlation with the index as all confidence intervals included zero. Concerning the second study, two variables correlated significantly with the index: job tenure and organizational level of the representative. Since no variable correlated significantly with the index in both studies, the relationship type does not systematically depend on any of the selected characteristics. As a result, the index may assess a wide range of stakeholder relationships regardless of organizational, personal, and relational boundary conditions.

	Coefficient	***t*-Statistic**	***p*-Value**	**Confidence Interval**
Organization				
Age	-.01; -.08	0.02; 1.49	0.99: 0.14	[-.20, 0.22]; [-.19, 0.03]
Revenue	0.04; -.01	0.25; 0.08	0.80; 0.93	[-.23, 0.30]; [-.12, 0.10]
Size	0.01; 0.04	0.09; 0.71	0.93; 0.48	[-.26, 0.30]; [-.08, 0.15]
Representative				
Job tenure	-.12; 0.13	1.11; 2.77	0.27; 0.01	[-.31, 0.13]; [0.03, 0.22]
Organizational level	-.13; 0.16	1.17; 3.00	0.24; 0.01	[-.34, 0.10]; [0.05, 0.25]
Relationship				
Duration	0.12; -.01	1.14; 0.18	0.26; 0.86	[-.11, 0.30]; [-.13, 0.11]
Interaction frequency	-.21; 0.08	1.90; 1.29	0.06; 0.20	[-.39, 0.04]; [-.06, 0.20]

1st value = Study 1; 2nd value = Study 2

Table 35: Correlations with Stakeholder Engagement Index

To determine the predominant relationship type of each case in the data, we inspected the scores of the lower-order constructs. As an indication of the predominant relational model, we identified the lower-order construct with the highest latent variable score for every case. This procedure assigned one relationship type to each case in the data unless multiple lower-order constructs shared the highest score. In this unlikely event, we excluded the respective case from further analysis as there was no detectable predominant relational model. Such an exclusion applied to four cases (4%) in Study 1 and eight cases (2%) in Study 2. Figure 7 shows the relative frequencies of the predominant relationship type in Study 1 and Study 2, which exhibited considerably different distributions. While the vast majority of respondents in Study 1 indicated either a CS or AR relationship (85%), the distribution in Study 2 was relatively balanced with all relational models between 18 and 28 percent. In absolute terms, Study 1 contained only six cases of EM and ten cases of MP.

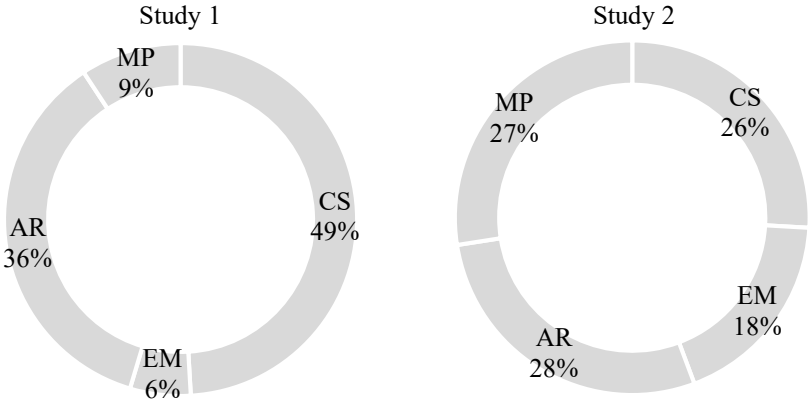


Figure 7: Relative Frequencies of Relationship Types[24]

[24] The percentages of Study 2 add up to 99 percent due to rounding.

After assigning each case in the data a predominant relational model, we additionally assessed the predictive validity of the relationship type. As described above, we expect the relational model to influence the personal initiative of a stakeholder because the relational models differ in the self-concept and representation of the relational partners (e.g., community versus individual), the type of motivation (e.g., altruism versus self-interest), and the appropriate behavior (e.g., "pitch in when needed" versus contribution in proportion to reward). Those relational factors are likely to affect the stakeholder initiative, which describes the degree of active and self-starting behavior of the individual stakeholder in the relationship as well as the extent of going beyond formal requirements and the expectations of the relational partner. Therefore, stakeholder initiative may also indicate how much and willingly a stakeholder contributes to joint value creation. In this context, we argue that an individual stakeholder in a CS relationship shows the highest initiative towards an organization among all relationship types. In CS, the stakeholder perceives a common identity and an affiliation with the organization and considers organizational goals as own goals (Bridoux & Stoelhorst, 2016; Fiske, 1991). Therefore, the stakeholder is highly motivated in the relationship with the organization and "pitches in" whenever needed. Concerning the other three models, we expect an individual stakeholder in an EM relationship to show higher initiative towards an organization than in an AR or MP relationship. EM gives ample scope for the initiative of a stakeholder in comparison to an AR relationship, which follows a rather formal and regulated relationship structure: the superior is in charge and issues commands to the subordinate who obeys them. Further, a stakeholder in an EM or AR relationship considers not only the own welfare but also the welfare of the organization, which is not the case in MP (Brewer & Gardner, 1996; Brickson, 2007; Bridoux & Stoelhorst, 2016). In an MP model, the stakeholder focuses on self-interest and cost-benefit considerations, which means that the person only behaves in an active and self-starting manner if there is a probable personal reward. Furthermore, we would expect a stakeholder to show the lowest initiative towards the organization in an MP relationship because that individual also expects the

organization to pursue its own interests and objectives (Bridoux & Stoelhorst, 2016; Fiske, 1991). To sum up, we argue that stakeholder initiative is highest in CS, second highest in EM, third highest in AR, and lowest in MP.

To test the association between stakeholder relationship type and stakeholder initiative, we merged the data sets of Study 1 and 2. We conducted this merging because a separate analysis of Study 1 would not have been meaningful due to the relatively small absolute frequencies of EM and MP (see above). Our procedure yielded a data set with 506 cases of which we excluded 12 cases due to no detectable predominant relational model. Thus, the final sample consisted of 494 cases. As a measure of stakeholder initiative, we used the mean value of the six items in Appendix E (scoring format: seven-point Likert scale). Since an inspection of the data indicated that stakeholder initiative followed normal distribution, we conducted a one-way ANOVA to assess the influence of different relationship types on stakeholder initiative. Levene's test for homogeneity of variances revealed that the variances of the four types of stakeholder relationships differed significantly ($F(3, 490) = 3.53$, $p = 0.02$). For this reason, we conducted Welch's *t*-test that showed a significant effect of relationship type on stakeholder initiative ($F(3, 242) = 4.83$, $p < 0.01$) with a small effect size of $\omega^2 = 0.02$. Figure 8 contains the boxplots of the four relationship types with respect to stakeholder initiative. CS showed the highest mean value ($M = 4.58$, $SD = 1.36$), followed by MP ($M = 4.44$, $SD = 1.28$), EM ($M = 4.24$, $SD = 1.30$), and AR ($M = 3.96$, $SD = 1.55$), respectively. Post hoc comparisons using Dunnett's T3 test indicated significant differences at the 5% level between CS and AR ($p < 0.01$) as well as between MP and AR ($p = 0.04$). However, the other means of relationship types did not differ significantly from one another. Therefore, our results suggest that the relationship type has an effect on stakeholder initiative in the sense that CS and MP are associated with a higher initiative of the stakeholder than AR. In an EM relationship, the stakeholder does not show significantly different initiative compared to the other three relational models.

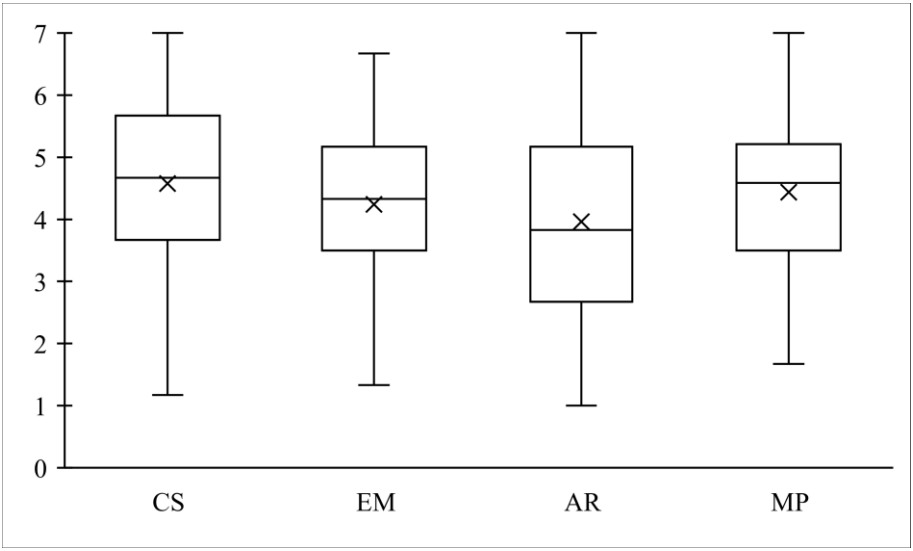


Figure 8: Differences in Stakeholder Initiative Between Relational Models

3.4 Discussion

3.4.1 Implications for Stakeholder Theory

Stakeholder theorists have pointed to the importance of understanding and analyzing relationships between organizations and stakeholders (e.g., Freeman et al., 2010; Jones, 2011). In our work, we contrast two groups of stakeholder theorist with different assumptions about stakeholder relationships: one group assumes that an organization has uniform (homogeneous) relationships with its various stakeholders, whereas the other group assumes relational differentness (heterogeneity) of an organization with respect to its stakeholders. We argue that the appropriate level of abstraction for measurement in this context is the relationship between an organization and an individual stakeholder because individual factors (e.g., motivations and interests of stakeholders) and relational factors (e.g., trust, communication, and reciprocity) are likely to vary substantially regarding different

stakeholder relationships (Bosse & Coughlan, 2016; McVea & Freeman, 2005; Polonsky et al., 2002). An implication of this argument for stakeholder theory is that work on stakeholder relationships – including measures such as our index – ought to begin at the level of individual stakeholders and advance from there to higher levels of abstraction, for example, stakeholder groups or all stakeholders of an organization. In this context, the index contributes to the recent microfoundations of stakeholder theory and strategic management (Barney & Felin, 2013; Bosse & Coughlan, 2016; Bridoux & Stoelhorst, 2014, 2016) because, on the one hand, it gives information about individual stakeholder relationships (single data points or cases). On the other hand, if researchers aggregate data points of a stakeholder group or of all organizational stakeholders, they can also use the index to analyze higher levels of abstraction.

The empirical results of our index construction indicate that the four relational models proposed by Fiske (1991, 1992) indeed exist in relationships between an organization and an individual stakeholder. As one indication, the significant associations between the lower-order constructs and their global items suggest that the constructs correspond to the relational models. Additionally, the further analysis (Chapter 3.3.4) shows that all relational models occur in the data of our two studies. The implication of those results is that relational models provide a useful and suitable theoretical lens to analyze the interaction between organizations and individual stakeholders. For this reason, we encourage stakeholder theorists to continue establishing and using relational models theory in research on organization-stakeholder relationships.

Further, our work provides evidence that relationship types are connected with the initiative of the individual stakeholder towards the focal organization. In accordance with our theory-based argumentation, CS relationships feature significantly higher stakeholder initiative than relationships in which AR is predominant. This finding points to the relevance of developing and maintaining close relationships in which the organization and the individual stakeholder share the same identity, motivation and goals. However, also MP relationships perform

significantly better in terms of stakeholder initiative than AR relationships, which is not in line with our theorizing. As an implication, the power imbalance and dependency in AR relationships seem to be more destructive and harmful to stakeholder relationships and particularly stakeholder initiative than the focus on self-interest and efficiency of MP. This argument links to the centrality of power, influence, and dependency to organization-stakeholder relationships referred to by other works in stakeholder theory (Frooman, 1999; Mitchell et al., 1997) and leadership (Wellman, 2017).

3.4.2 Implications for Practice

For organizations and their managers, the index presents a tool to measure and assess the relationship of an organization with an individual stakeholder. Again, we stress the importance of collecting data at the level of individual stakeholders and advancing from there to higher levels of abstraction. In other words, an organization may ask its managers about the relationship with certain individual stakeholders or, vice versa, a number of individual stakeholders about their relationship with the focal organization. Managers can also analyze this data in aggregate and then decide on a case-by-case basis if and how a respective relationship needs improvement. Due to the relational heterogeneity described in this work, we argue against one-size-fits-all stakeholder relationship management but rather for the names-and-faces approach that considers the different motivations, desires, and interests of individual stakeholders (McVea & Freeman, 2005).

Another practical implication stems from our empirical findings that provide evidence for the existence of all four relational models in organization-stakeholder relationships. As a consequence, practitioners need to understand the four relational models and recognize which model underlies the respective relationship with an individual stakeholder. If we consider the results of our further analysis as well as the propositions of previous conceptual works (Bridoux & Stoelhorst, 2016; Jones et al., 2018), managers should aim at developing CS relationships because they maximize the stakeholder's initiative and contribution to value creation. As our

empirical findings did not only contain CS relationships, we infer great potential for improvement of stakeholder relationships in practice. In this context, we note that it takes substantial effort to improve a relationship from another model to CS compared to stakeholders' high readiness to downgrade relationships in the other direction (Bridoux & Stoelhorst, 2016).

3.4.3 Limitations and Avenues of Future Research

One potential limitation of our work would be the clear focus on developing a measure to operationalize stakeholder relationships by means of relational models theory (Fiske, 1991, 1992). Although this relationship typology constitutes a valid and useful theoretical basis for stakeholder relationships, it would be conceivable to construct an index or scale based on other conceptions such as Bosse's and Coughlan's (2016) theory on stakeholder relationship bonds. A possible drawback of relational models theory is that it does not address the question why (or how) individuals select a particular model for a given relationship (Wellman, 2017). While our work focuses on measuring relational models in stakeholder relationships, the emergence and antecedents of relational models in organization-stakeholder contexts would also be a productive area of future research.

Another limitation of this work might be the assumption that an individual stakeholder perceives to be in a relationship with an entire organization and views actions of organizational members and representatives as actions of the focal organization. Although there is much evidence for this assumption in the organizational literature, it is conceivable that different organizational representatives treat a given stakeholder heterogeneously (Jones et al., 2007). Such inconsistencies would likely lead individual stakeholders to subdivide an organization mentally into parts and not to perceive a relationship with the organization as a whole but rather with its single components. However, this possible scenario is not the focal point of our work, in which we rather focus on the heterogeneity of organizational relationships with respect to different individual stakeholders and its implications for measurement. For this reason, we leave the

issue that organizational representatives might diverge regarding their treatment of a particular individual stakeholder to future research.

A third limitation of our work is that the Studies 1 and 2 show partly different results. As a particular example, the indicators of AR converge considerably more in Study 1, which manifests in a correlation coefficient that has almost twice the magnitude compared to Study 2. Such substantial differences are likely due to the two different study samples and the fact that we did not include the decision-making indicators (CS3, EM3, AR3, and MP3) in Study 1 but added them afterwards to better cover the theoretical domains of the lower-order constructs. Thus, we urge future research to replicate our index construction in order to clarify the empirical ambiguity of Study 1 and 2. With respect to indicator significance and relevance, replication studies may shed more light on the contribution of the two non-significant items AR3 and AR4 to forming the lower-order construct of AR.

3.4.4 Conclusion

Stakeholder relationships are at the heart of businesses and organizations because they constitute the breeding ground for mutual value creation and provide a source of sustainable competitive advantage (Jones et al., 2018; Post et al., 2002). Our index on types of relationships between an organization and an individual stakeholder contributes to the growing relational stream of stakeholder theory. To analyze stakeholder relationships, it is important to address each stakeholder relationship individually and understanding the underlying motives, desires, and inner workings. In this context, relational models theory provides an appropriate and useful theoretical lens to investigate the relationship between an organization and an individual stakeholder (Bridoux & Stoelhorst, 2016). With the constructed index, we aim at stimulating quantitative research that advances our understanding of organization-stakeholder relationships. For practitioners, we provide a tool that allows them to analyze and manage their relationships with individual stakeholders.

4 General Discussion

In this final chapter, we refer to the initial problem statement of the dissertation in order to provide a general discussion that goes beyond the Chapters 2 and 3. This overall discussion begins with the dissertation's main implications for stakeholder theory and practice. Afterwards, we turn to the general limitations and utilize them to deduce potential avenues of future research. In the end of the discussion, we provide some concluding remarks about our research.

4.1 Implications for Stakeholder Theory

In this dissertation, the first tackled problem was that stakeholder theory lacks validated measurement models of stakeholder engagement and stakeholder relationship types (Jones et al., 2018; Plaza-Úbeda et al., 2010). Therefore, the main research question of this work referred to how to operationalize stakeholder engagement and stakeholder relationship types. Our contribution to the measurement of stakeholder engagement is an index that consists of four dimensions and 23 manifest indicators, which represent practices of stakeholder engagement. Further, we suggest operationalizing stakeholder relationship types by means of another index with four dimensions, which represent relational models, and 16 manifest items. The construction process of both measurement models was based on criteria to evaluate and validate the indices as scientifically sound measures (Hair, Hult, Ringle, & Sarstedt, 2017; Hair et al., 2018).

The major implication of operationalizing stakeholder engagement and stakeholder relationship types is that stakeholder theorists can use the developed measures to test existing propositions and hypotheses or newly theorized relationships between constructs. Specifically regarding the literature on stakeholder engagement, our index hopefully stimulates stakeholder scholars to theorize more about the mechanisms that operate between an organization and an individual stakeholder. In this context, we made the first step by investigating the relationship between stakeholder engagement and the initiative of a stakeholder towards the focal

organization. Regarding stakeholder relationship types, Bridoux and Stoelhorst (2016) theorize that a stakeholder's relational model towards the focal organization determines the former's contributions to joint value creation in public good dilemmas with high task and outcome interdependence. With our index, researchers could empirically investigate Bridoux's and Stoelhorst's (2016) main proposition that a CS relationship is associated with higher levels of stakeholders' contributions to joint value creation than EM, AR, and MP. Another example for the use of the index would be to test Jones et al.'s (2018) proposition that organizations with a relational ethics strategy based on CS develop sustainable competitive advantage in the market place. On a related note, we have to point out that Jones et al. (2018) pitch their theory on the level of stakeholder groups and not individual stakeholders. However, the wording of our index items is in principle easily adaptable to other levels of abstraction such as stakeholder groups.

The second problem that this dissertation tackled was that stakeholder theorists did not explicitly address the issue of specification when developing existing measurement models (Agudo-Valiente et al., 2015; Kaptein, 2008; Mazur & Pisarski, 2015; Plaza-Úbeda et al., 2010). For this reason, the first of two sub-questions in this work referred to the correct specification of the two newly developed measures. We specify our first measure as an index of stakeholder engagement because its four dimensions represent defining characteristics of the overall construct and the manifest indicators (practices) form the dimensions. Similarly, the items of the index of stakeholder relationship types describe the relational models (dimensions) in different domains of social life, while the four models constitute the building blocks of the overall relationship type (Fiske, 1991, 1992). Such relationships between the indicators and the dimensions as well as between the dimensions and the overall construct point to a formative specification of the measures as indices (Jarvis et al., 2003).

In this context, one implication of our work is that stakeholder theorists ought to consider both reflective *and* formative measurement specification. Contrary to our two formative measures, stakeholder theory so far produced exclusively reflective

measures to our knowledge (e.g., Agudo-Valiente et al., 2015; Kaptein, 2008; Mazur & Pisarski, 2015; Plaza-Úbeda et al., 2010). In fact, this dominance of scales could be an indication that stakeholder theorists have disregarded the issue of measurement specification altogether. As in other fields of research, this likely disregard of formative measures resulted in a number of misspecified measurement models that do not correctly represent their underlying construct (e.g., Agudo-Valiente et al., 2015; Mazur & Pisarski, 2015; Plaza-Úbeda et al., 2010). Thus, our work makes an effort to raise stakeholder theorists' awareness of measurement specification and transfers the current state of the art in index construction and formative model evaluation to the empirical stakeholder literature. Especially in recent years, the literature on index construction has made significant advances that changed the criteria by which researchers ought to evaluate formative measurement models (Hair, Hult, Ringle, & Sarstedt, 2017; Hair et al., 2018). While earlier works advocated among other things the assessment of external validity (Diamantopoulos & Siguaw, 2006; Diamantopoulos & Winklhofer, 2001), current guidelines rather emphasize the evaluation of convergent validity as well as indicator significance and relevance (Hair, Hult, Ringle, & Sarstedt, 2017; Hair et al., 2018). By considering the new guidelines and recommendations, we adequately assess the constructed indices and contribute to advancing quantitative measurement in stakeholder theory.

The third problem that this dissertation tackled was that existing measurement models in stakeholder theory tend to aggregate stakeholders of an organization (e.g., Agudo-Valiente et al., 2015; Kaptein, 2008; Mazur & Pisarski, 2015; Plaza-Úbeda et al., 2010). Thus, the second sub-question in this work referred to the appropriate abstraction level of the two developed measures. Both constructed indices focus on the interaction between the focal organization and an individual stakeholder. For the index of stakeholder engagement, this level of abstraction seemed appropriate because an organization de facto uses different practices with its various individual stakeholders. The argument for this abstraction level in the case of the second index is that stakeholder relationships of an organization differ in their nature as they are subject to individual factors (e.g., motivations and interests of stakeholders) and

relational factors (e.g., trust, communication, and reciprocity) (Bosse & Coughlan, 2016; McVea & Freeman, 2005; Polonsky et al., 2002).

The implication of stakeholder disaggregation in measurement is that researchers collect higher-quality data because subjects give their view and assessment of a specific stakeholder relationship. Measures that aggregate the stakeholders of an organization (e.g., by group or types) implicitly ask respondents to report about the "common stakeholder" or to determine an average of all stakeholders. In our view, this approach overwhelms subjects and probably leads to distorted and erroneous data in many cases. Instead, respondents who are surveyed about an individual stakeholder refer to a clear target person and therefore can provide more reliable information. With this approach, we additionally make a case for focusing on stakeholders as individuals, which is advocated by the names-and-faces approach (McVea & Freeman, 2005) and the microfoundations of stakeholder theory (Bosse & Coughlan, 2016; Bosse et al., 2009; Bridoux & Stoelhorst, 2014, 2016). Research at this level of abstraction is scarce in stakeholder theory and may also further our understanding of mechanisms at higher levels of analysis (e.g., the relationship between stakeholder orientation and financial performance of organizations). For the stated reasons, we encourage stakeholder theorists to follow our lead and consider an individual-level perspective for their research, especially when developing new measurement models.

4.2 Implications for Practice

Our work has implications on stakeholder engagement and stakeholder relationships not only from a theoretical perspective but also in practice. First and foremost, an organization could use the developed measurement instruments as a straightforward tool to monitor and evaluate its engagement and relationships with individual stakeholders. Those instruments support an organization and its managers in gathering stakeholder-related data, establishing a basis for informed decision-making, and specifying the organizational strategy. To obtain data, the organization

may survey stakeholder managers, organizational units, or individual stakeholders. While asking managers or business units is advantageous in terms of easier access and more control over data collection, it has the common drawbacks of self-reported data such as potential social desirability bias (Podsakoff & Organ, 1986). Depending on who is surveyed, the items of the measurement instruments need slight rewording to fit the targeted subjects. However, both indices are easily adaptable to different subjects and are therefore broadly applicable in various contexts.

Regardless of whether individual stakeholders or managers are asked, an organization may analyze specific cases of stakeholder engagement or stakeholder relationships or aggregate stakeholders to groups or an entire population. In either case, managers could plot the results using radar diagrams as depicted in Figure 5. Such an illustration breaks the results down into index dimensions so that decision-makers gain an insight into the data, while the interpretation of the diagrams is still relatively intuitive. For instance, a radar diagram allows direct comparisons of the status quo with target levels. An organization may define different target achievement levels for each dimension, analyze deviations between the status quo and the target, and develop strategies to overcome such deviations. If the number of responses is high enough (Hair et al., 2014), practitioners could additionally conduct cluster analysis to produce groups of individual stakeholders, managers, or organizational units as a function of the relationship type or stakeholder engagement. In this case, the cluster scores may be compared in the radar diagrams and boxplots may show differences between clusters with respect to selected performance outcomes.

Apart from the measurement instruments, our work provides managers with evidence on how stakeholder engagement and relationship types are connected with the initiative of an individual stakeholder towards the focal organization. Different levels of stakeholder engagement as well as different stakeholder relationship types showed significant variation with respect to stakeholder initiative. A high level of stakeholder engagement in the four dimensions was related with significantly more stakeholder initiative than middle- or low-level stakeholder engagement. One

managerial implication is that organizations should not specialize in one dimension (e.g., information or consultation) but ought to consider all four dimensions of stakeholder engagement. While the interpretation of our findings is relatively straightforward in the case of stakeholder engagement, our further analysis of stakeholder relationship types produced mixed results. Individual stakeholders show significantly more initiative in CS and MP relationships in comparison to AR relationships, whereas EM does not exhibit any significant differences compared to the other three relationship types. In practice, the factual power imbalance and dependency that characterize many stakeholder relationships – for example, between a superior and a subordinate – cannot easily be changed. However, we recommend to managers not to stress or exploit their power in relationships in order to reduce its salience to stakeholders and thereby to minimize its detrimental effects on stakeholder initiative. This recommendation is in line with recent approaches to manager-employee relationships and leadership (Pearce & Conger, 2002; Wang, Waldman, & Zhang, 2014; Wellman, 2017). Summing up the managerial implications, we provide organizations with measurement instruments and outcome-related insights in order to promote evidence-based stakeholder engagement and stakeholder relationship management.

4.3 Limitations and Avenues of Future Research

While we developed the measurement models of this dissertation on the basis of established recommendations and guidelines from the literature on index construction, we acknowledge that both measures satisfy the different criteria to a variable extent. The specification of index content and indicators as well as the issue of collinearity did not raise any problems in the process of index construction. However, most components of the indices did not meet the threshold for convergent validity that Hair et al. (2017) propose. Nevertheless, all correlations in this context were statistically significant at a one percent level and therefore indicated some extent of convergent validity. Unfortunately, there are only few studies that have

evaluated the convergent validity of formative measures (Ringle et al., 2018; Sarstedt, Hair, Cheah, Becker, & Ringle, 2019) so that we have little indication whether other indices achieve the level of convergence proposed by the literature. Future research will shed light on this issue and show if the threshold for convergent validity is met in the field. Regarding indicator significance and relevance, the two quantitative studies produced very different results in the case of both indices. Furthermore, two items of the relationship index were neither relevant in absolute nor in relative terms. This result suggests that indicators are highly sensitive to different samples and that the composition of both formative measures in terms of their items still needs further scrutiny by future research.

As a large part of both index constructions relied on two surveys, our approach comes along with the known drawbacks concerning this type of quantitative research. Although we pretested our questionnaire multiple times, there is no certainty that all subjects understood the questions and items as they were intended. Additionally, we asked respondents to focus on *one* individual stakeholder when answering but could not guarantee that they were entirely consistent in this respect during the survey. Another potential limitation is that subjects decided themselves on which individual stakeholder they would focus to answer the questions. This procedure would result in selection bias if respondents systematically chose stakeholders with whom, for instance, they engaged highly or had good relationships. However, our cluster analysis of the data on stakeholder engagement and our analysis of predominant relationship types does not support any such suspicion of selection bias since there was a balanced distribution of different engagement levels and relationship types. A last potential issue in this context is the samples of the two studies, which included a key informant survey with 113 stakeholder engagement practitioners and an employee survey with 394 participants. Due to the differences between both studies with respect to their subjects and sample size, we urge future research to replicate our work with other respondents and other sample characteristics.

The prevailing view in stakeholder theory suggests that an organization, which engages with its stakeholders and has cooperative stakeholder relationships, benefits in terms of high mutual value creation and sustainable competitive advantage (Bridoux & Stoelhorst, 2016; Freeman, Martin, et al., 2007; Jones et al., 2018). Overall, the findings of this dissertation confirm the generally positive effects of stakeholder engagement and good-quality stakeholder relationships. However, approximately one in three organizations (32%) showed low-level stakeholder engagement and roughly the same proportion (30%) were in a stakeholder relationship based on the principles of AR. Our work does not explain this apparent contradiction: if stakeholder engagement and cooperative stakeholder relationships are allegedly beneficial, why do relatively many organizations not practice them? In this context, stakeholder theorists have recently started to address potential boundary conditions (Bridoux & Stoelhorst, 2014, 2016; Jones et al., 2018). Bridoux and Stoelhorst (2014, 2016) point out that individual stakeholders vary in their preferred relational model due to their different social dispositions. For this reason, organizations have to adjust to each individual stakeholder and manage the relationship (and engagement) on a case-by-case basis. Additionally, Jones et al. (2018) argue that the dynamism of an industry, its knowledge intensity, and an organization's interdependence with stakeholders influence the effectiveness of stakeholder engagement and stakeholder relationships. Thus, the characteristics of an organization, its industry, and its individual stakeholders may explain why stakeholder engagement and cooperative stakeholder relationships are not necessarily always beneficial and practiced. We deem this issue a productive area of future research and urge stakeholder theorists to develop a full-fledged model describing all relevant boundary conditions that influence the effectiveness of stakeholder engagement and/or stakeholder relationships.

4.4 Conclusion

The goal of this dissertation was to advance quantitative measurement in stakeholder theory. From a scientific perspective, measurement is ultimately a means to the end of testing theoretical relationships between constructs. Scientifically sound theory testing requires measurement models that properly represent the underlying construct. Otherwise, the empirical findings lack validity and likely result in misleading conclusions about the relationships between constructs. From a practical perspective, accurate measurement instruments can help organizations to track, monitor, and evaluate objectives that specify organizational strategies. However, if the measures are flawed, they will misinform managers about the achievement of objectives and possibly give rise to counterproductive managerial action or lead to a failure to (re)act. Thus, measurement models are highly relevant to theory and practice. It is imperative for researchers and managers to assess them rigorously and ensure their validity.

The two measures developed and evaluated in this work add to the small but important literature on quantitative measurement in stakeholder theory. During the construction of both measures, we have particularly addressed their correct specification and appropriate abstraction level given that we are critical of both issues in previous works. In the case of the developed measures, a formative perspective better captures our conceptualizations of stakeholder engagement and stakeholder relationship types than a reflective perspective. If conceptualizations were different, a reflective measure might have been more suitable. Regarding the level of abstraction, focusing on specific stakeholder relationships gives subjects a clear target stakeholder to whom they refer when answering, which is more reliable and less distorted than surveying respondents about all their stakeholders in aggregation. In short, our chosen measurement specification and abstraction level represent two novel approaches to operationalization in stakeholder theory and aim at providing a complementary perspective to previous works in this literature.

According to a recent special issue of the journal *Business & Society*, stakeholder theory has reached a crossroads. In the editorial of this issue, Barney and Harrison (2018, pp. 204-205) present a list of yet unanswered questions such as: "From a firm value creation perspective, is it really optimal to treat *all* essential stakeholders unusually well (within rational limits)? […] Does a stakeholder approach promote primarily cost minimization or opportunity maximization? […] Does stakeholder-based management always lead to greater value creation vs. what are the essential moderators in this relationship?" The selected questions have in common that they ultimately require rigorous empirical investigation, which calls for measurement models such as the ones developed in this work. In this sense, valid measurement is at the core of those crossroads and will have a determining influence on the future direction of stakeholder theory.

Appendix

Appendix A: First-Round Interview Questions

1) You are [position] at [organization]. What are your main tasks and responsibilities in this position?
2) Which stakeholders do you deal with in your position the most?
3) From the perspective of your organization: How strategically important is stakeholder management to your organization? (Why?) What are the strategic considerations of stakeholder management in your organization?
4) Now we would like to know what your stakeholder relationships look like and how you manage those relationships. For this purpose, we have prepared a fourfold matrix with two dimensions: the strategic importance of the stakeholder relationship on the x-axis and the quality of the relationship on the y-axis. Could you please classify your stakeholder relationships on this card? Please explain each classification.
    a. When is a stakeholder relationship strategically important or unimportant to you?
    b. When is a stakeholder relationship of high or low quality?
    c. How do you manage this relationship?
    d. How do you collaborate with the respective stakeholder in this relationship?
    e. How do you create mutual understanding?
5) Now we would like to work on a specific incident with you. Please think about a recent situation in which the relationship or collaboration with a stakeholder was very positive. Please describe the situation in detail.
    a. How was this situation? Why was it positive?
    b. How did this situation come about? Can you describe the circumstances? (How was the interpersonal relationship?)
    c. What were the consequences of this situation for the stakeholder relationship? (What were the consequences on the interpersonal level?)

   d. Were there any spillover effects of this situation that affected the entire organization?
   e. How would you describe trust? (How does trust come about? When and how does trust evolve?)

6) Now please forget about the positive situation you have just told me about. Please think about a recent situation in which the relationship or collaboration with a stakeholder was very troublesome. Please describe the situation in detail. (Follow-up questions analogous to part/question 5)
7) Have we forgotten any important issue in this context or is there anything you would like to add?

Appendix B: Second-Round Interview Questions

1) (You are [position] at [organization]. What are your main tasks and responsibilities in this position?)
2) Which practices do you and your organization use to inform a stakeholder about the organization and its activities?
3) Which practices do you and your organization use to consult a stakeholder, for example, about needs, views, and satisfaction?
4) Which practices do you and your organization use to enter into a dialogue with a stakeholder and to carry on this dialogue?
5) Which practices do you and your organization use to give a stakeholder a voice in organizational decision-making?
6) (How do organizations have to use the described practices to achieve a positive impact on the relationship with a stakeholder?)
7) Have we forgotten any important issue in this context or is there anything you would like to add?

Appendix C: Questionnaire of Quantitative Studies

Appendix

Page 1/6: While answering this questionnaire, please focus on an internal or external stakeholder with whom you are in direct contact and exchange in the context of your professional position and occupation. In this personal relationship, you represent your organization to the stakeholder.

- Below you see a list of possible types of stakeholders. Please focus on one stakeholder throughout the following questions. To which type of stakeholder does the selected stakeholder belong? Customers, Competitors, Employees, Government, Lenders, Local community / neighborhood, Media, Non-governmental organizations (NGOs), Owners / shareholders, Regulators, Politics, Suppliers, Universities / colleges, Other stakeholder type
- How long have you been in a relationship with this stakeholder? Less than a month, Less than a year, Less than five years, More than five years
- How often do you interact with the stakeholder? Daily, Weekly, Monthly, Quarterly, Annually

Page 2/6: Now we would like to know how your organization (including you) engages with this stakeholder. Please indicate on a scale from „strongly disagree“ to „strongly agree“ to what extent you agree with the following statements.
[Followed by list of index items as in Table 7, column Practice]

Page 3/6 [only contained in Study 2]: Now we are interested in your judgement on more general statements about the relationship between your organization and the stakeholder. Please indicate on a scale from „strongly disagree“ to „strongly agree“ to what extent you agree with the following statements.

- Overall, the organization informs this stakeholder with content that is specially geared to the stakeholder.
- Overall, the organization consults this stakeholder extensively about his/her needs, views, and satisfaction.
- Overall, the organization has an intensive dialogue with this stakeholder.

- Overall, the organization involves this stakeholder in its decision-making processes.
- Overall, the organization engages with this stakeholder appropriately and effectively.

Page 4/6: In the following, we want to gain a better understanding of the relationship between your organization (including you) and the selected stakeholder. We are interested in five important aspects of the relationship: (1) exchange and distribution of resources, (2) moral values, (3) decision-making, (4) identity and influence, and (5) general relationship. Please indicate on a scale from „strongly disagree“ to „strongly agree“ to what extent you agree with the following statements.
(1) Exchange and distribution of resources [Followed by items in this domain as in Table 26]
(2) Moral values [Followed by items in this domain as in Table 26]
(3) Decision-making [Followed by items in this domain as in Table 26, missing in Study 1]
(4) Identity and influence [Followed by items in this domain as in Table 26]
(5) General relationship [Followed by items in this domain as in Table 26]

Page 5/6: Now we would like to know how the selected stakeholder acts towards your organization and you. Please indicate on a scale from „strongly disagree“ to „strongly agree“ to what extent you agree with the following statements.
[Followed by items in Appendix E]

Page 6/6: Finally, we would like to ask you for some general information about your organization and yourself.

- In which industry is your organization? [Followed by list of 20 industries]
- How many employees does your organization have? 1 - 49 employees, 50 - 249 employees, 250 employees or more
- How much revenue does your organization approximately generate each year? Up to 10 million U.S. Dollars, Up to 50 million U.S. Dollars, More than 50 million U.S. Dollars

- How old is your organization? Please enter the age of the organization rounded to a full year.
- To which department does your position / function belong? Sustainability / corporate social responsibility (CSR), Communication / media / public affairs, Management (CEO), Business development / corporate development, Other position/function [question only contained in Study 1]
- At which organizational level are you? Employee, Lower management, Middle Management, Top Management
- How long have you been working for your organization? Please enter a number rounded to a full year.

Appendix D: Relational Models Scale by Haslam & Fiske (1999)

Communal Sharing

1. If either of you needs something, the other gives it without expecting anything in return
2. Many important things you use belong to the two of you together, not to either one of you separately.
3. You share many important responsibilities jointly, without assigning them to either of you alone.
4. You feel a moral obligation to feel kind and compassionate to each other.
5. You make decisions together by consensus.
6. The two of you tend to develop very similar attitudes and values.
7. You feel that you have something unique in common that makes you two essentially the same.
8. The two of you are a unit: you belong together.

Equality Matching

1. We keep track of what we give to each other, in order to try to give back the same kind of things in return eventually; we each know when things are uneven.
2. You typically divide things up into shares that are the same size.

3. If you have work to do, you usually split it evenly.
4. You have a right to equal treatment.
5. One-person, one-vote is the principle for making decisions with this person.
6. If one person does what the other wants, next time the second person should do what the first.
7. The two of you consider yourselves peers, fellow workers, and co-partners.
8. Both of you should have even chances.
9. If you can't divide something up, you take turns person wants.

Authority Ranking

1. One of us sometimes has to turn over things to the other, who doesn't necessarily have to give.
2. One of you is entitled to more than the other.
3. One of you directs the work you do together-the other pretty much does what they are told to.
4. In some respects, one of us is entitled to more than the other, and should be treated with special.
5. One of you makes the decisions and the other generally goes along.
6. One of you is the leader, the other loyally follows their will.
7. One of you looks up to the other as a guide and role-model.
8. One of you is above the other in a kind of hierarchy them back do respect.

Market Pricing

1. What you get from this person is directly proportional to how much you give them.
2. You divide things up according to how much each of you has paid or contributed.
3. If one of you worked for the other, they would be paid in proportion to how long they worked. 4. You have a right (you are entitled) to a fair rate of return for what you put into this interaction.
5. With this person, you make decisions according to the ratio of the benefits you get and the costs.
6. One of you often pays the other to do something.

7. You expect to get the same rate of return on your effort and investment that other people get.
8. Your interaction is strictly rational: you each calculate what your payoffs are, and act accordingly.

Appendix E: Items of Stakeholder Initiative Measure

1. This stakeholder actively addresses any problems in our relationship in a positive manner.
2. Whenever something goes wrong concerning my organization, this stakeholder immediately searches for a solution.
3. Whenever there is a chance to get actively involved, this stakeholder acts as a spokesman for my organization.
4. This stakeholder takes the initiative even when other stakeholders do not.
5. This stakeholder uses opportunities quickly in order to contribute to my organization's goals.
6. Usually, this stakeholder does more for my organization than s/he is asked to do.

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Curriculum Vitae

Daniel Laude

Born October 22, 1987 in Hamburg (Germany)

EDUCATION

Ph.D. in Management, University of St.Gallen, 08/2015 – 09/2020

M.Sc. in Management, University of Mannheim, 09/2011 – 08/2013

Semester abroad, University of St.Gallen, 02/2013 – 05/2013

B.A. in Foreign Trade / International Management, Hamburg University of Applied Sciences, 09/2007 – 08/2011

Semester abroad, Chulalongkorn University, Bangkok, 01/2011 – 05/2011

WORK EXPERIENCE

Research associate, project assistant and lecturer, Institute of Strategic Management: Stakeholder View, HWZ Zurich, 11/2014 – present

Research and project assistant, Chair of Logistics Management, University of St.Gallen, 02/2014 – 07/2014

Chairman, project manager and consultant, HAW Hamburg Student Consulting, Hamburg University of Applied Sciences, 03/2008 – 12/2010

SCHOLARSHIPS AND AWARDS

Doc.Mobility Scholarship of the Swiss National Science Foundation, 2018

Scholarship of the Karl H. Ditze Foundation, 2011