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Editor's Letter

This issue of the *Nordic Journal of Business* contains three peer-reviewed articles. In the first article, Pertti Laine, Päivikki Kuoppakangas and Jari Stenvall provide a new perspective on change strategy and its operational definition. The second article by Anna Romberg focuses on shareholder engagement as a risk management strategy related to environmental, social and governance (ESG) responsibilities. Finally, in the third article, Jari Huikku and Aino-Maria Pöyhiä examine the valuation model choices of sell-side analysts.

I hope you enjoy reading the interesting articles included in this issue of the *Nordic Journal of Business*.

Sami Vähämaa
Editor
Nordic Journal of Business

Change Strategy (CS): Is There Any?

Pertti Laine, Päivikki Kuoppakangas and Jari Stenvall

Abstract

The construct of *change strategy* (CS) dates back several decades; however, its use remains vague, equivocal, and unestablished. In this study, we gave CS one possible operational content that differs from that assigned by earlier studies. We then examined how the reconceptualized and redefined change-strategic thinking appeared in two large service organizations. Our 30 informants were mainly HR specialists involved in change projects. We found that the organizations engaged in no conscious efforts to develop CSs, even for the most challenging change projects. Moreover, they rarely applied the four principles included in our definition of CS thinking. The results indicate great challenges in the rational exploitation of the theoretical knowledge on change. We believe that further conceptual development of CS would support the creation of a philosophy and a tool to improve the quality of change implementation.

Keywords:

change strategy, strategy for change, change management, change implementation

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1. Introduction

We are used to seeing the construct of *strategy* in a wide variety of contexts, so much so that without a contextual and explicit definition, there is a risk of inflating the term. Strategy is commonly linked to essential issues of organizational survival and succession. The decisions required to achieve future success often require companies to give something up and limit themselves to the most essential. Within this context, strategic thinking has evolved over time, moving from a focus on strategic planning and analysis in the 1960s to strategic positioning and so-called generic strategies in the 1980s. Over the next two decades, the dominant paradigm was the competence-based strategy. Since then, strategic thinking has evolved in a variety of directions, and contemporary views on strategy, such as 'strategy as practice', have brought it closer to everyday reality. The complex theory-based conceptions of strategy have raised questions concerning the possibilities of rational change management (e.g. Andrews 1987; Ansoff 1965; Chandler 1962; Jarzabkowski et al. 2007; Juuti & Luoma 2009).

The constructs of strategy and change are often combined in the term *strategic change*, which 'involves an attempt to change current modes of cognition and action to enable the organization to take advantage of important opportunities or to cope with consequential environmental threats' (Gioia & Chittipeddi 1991, 433). Strategic change refers to an intentional and teleological change that is thought to be rationally manageable. Its implementation is usually planned in the strategic processes of top management, and its products are often called managerial changes.

The combination *change strategy* (CS) is also widely used, but scientific articles seem to focus on more specific change strategies, such as 'the strategy for climate change', 'empowerment as a change strategy' and 'goal setting as a change strategy for health behavior' (examples taken from scientific articles). However, meta-research on this concept is largely lacking, and a review of the research revealed no conceptual analysis of the construct. As a result, the conceptual idea of CS remains vague and equivocal. The purpose of this article is to introduce a new perspective on CS and its operational definition and to demonstrate this perspective in empirical contexts. We are not adding a new concept to the strategic jungle; rather, we wish to give a more precise meaning to this pair of words so often used in managerial contexts. Further, despite continuous dependence on intentional change processes, we find that systematic discussions of their succession are infrequent. There is a need for new openings within this discussion to improve the quality of change.

First, we present some limitations with regard to change. We focus mainly on intentional change (as opposed to emergent change or unplanned change), which involves a will on the part of the actors to accomplish a defined change. Unlike continuous change, this kind of change is episodic by nature (see e.g. Weick & Quinn 1999), and it often manifests through development or change projects with clear beginnings and endings. The intentional change also involves a desire among actors to be rational and to rationally justify their choices. Although humans' rationality can be questioned—for instance, via a critique of the complexity theory (e.g. Stacey 1996)—it remains the prevailing paradigm of decision-makers. The third chosen perspective concerns the process of change implementation and conscious or unconscious decisions regarding the means and strategies for accomplishing change. Here, this means taking a holistic approach to the process to include both content and process: two concepts that are generally discussed separately, often even by different actors.

This article introduces and reconceptualizes CS and then examines how it is perceived and applied by change practitioners in two case organizations. First, we will briefly review the extensive tradition of change management and highlight some aspects that could contribute to change-strategic planning. Next, we will examine how the construct of CS is discussed and used in scientific literature. Then, we will introduce our definition of CS and our idea for its operationalization, demonstrated through case studies in different industries. As our approach to CS is novel, its rationalization requires a great deal of effort and space. Accordingly, we are obliged to be very concise in reporting the empirical results for this explorative phase in the development of CS.

To conclude this introduction, we emphasize that our focus is on CS as a generic term (i.e. unrestrained by context) and as a philosophy of how to approach intentional change. Tracing back to Lewin (1951) and many others, managerial change connections often use the constructs of *planned change* or *managed change*; however, we see these terms as referring to different sides of intentional change. Our concept of CS refers more specifically to something that is needed when 'planning' or 'managing' change: that is when selecting a contextual mix of means and actions.

2. What change?

The term *change management* (CM) is self-explanatory: we strive to manage and control change. However, as societies and organizations become more complicated, it seems the goal moves further away, and change becomes even harder to manage. The theory and research material on change is abundant and diverse; however, the theory on theories of change—that is, the meta-theory of change—is lacking. It is no wonder that managers and other decision-makers feel confused. The lack of clear guidance may lead practitioners to abandon the use of theory-based knowledge or use overly straightforward simplifications. Managerial change relies self-evidently on 'the rational man' who bases decisions on knowledge (e.g. Elster 1989).

In the following, we briefly review the extant knowledge of the change, considering only those mainstream views and categories relevant to our research on CS. First, we discuss the *process views* on change on both the macro and micro levels; then, we take up the *contextuality* of change and its connection to the cultural issues of an organization. Finally, we discuss the extensive area of *individual-level psychological knowledge*. As we focus on the meta-level review of change implementation, the discussion considers only certain categories of change-specific knowledge as examples of categories that should be considered in planning CS.

First, concerning the process views, we consider the macro models of change. Change processes on the macro level seek to identify the regularities of change: that is, the change 'laws of nature'. For instance, based on a comprehensive computerized literature search, Van de Ven and Poole (1995) formed four ideal-type theories for explaining the processes of change: *life cycle*, *evolution*, *dialectics,* and *teleology*. Reflecting on these from a CS perspective, the theories focus on the analysis of past change processes and, thereby, learning from the history of change. The macro models are creative in that their analogies lie in the paradigms of different sciences; however, the mechanical transfer of these theories may not be relevant to change in humans.

Other mainstream trends concerning change processes on the micro-level analyze the phases or steps of change implementation. Since Lewin (e.g. Burnes 2004), there has been a tradition of seeing the implementation process of intentional change as a series of sequential phases with typical features. The idea is that careful preparation of these steps is key to successful implementation. Most step models can be traced back to Lewin's (1947) original Three-

Step Model (unfreezing, moving and refreezing), though more recent models tend to be more complicated (e.g. Bridges 1995; Grundy 1994; Kotter 2012; Levy & Merry 1986; Lewin 1947, 1951; Tichy & Devanna 1986).

Step theories or models excel in analyzing the change implementation process, but they have also attracted strong criticism (e.g. Beer & Noria 2000; Kotter 1996). It can be argued that step theories have maintained a narrow view of change processes by concentrating only on the implementation and leaving out, for instance, how the change was initiated, how the change targets and contents emerged and formed, and the impacts of these factors on the whole process. The wider view of change we seek would also contain a review of the relation between the episodic and the continuous change, as well as a review of the relation between emergent and intentional change. In our view, comprehensive CS planning is more than just planning for the different steps of implementation.

The next category of change-specific knowledge discussed here is related to the contextual and organizational culture linkages of change. It is natural to think that the strategies of change implementation should be adjusted to the organizational situation and reality, which could range from strong organizational growth and international expansion (e.g. Gino & Pisano 2011; Hoffstede 2001; Karp 2006) to downsizings and lay-offs (e.g. Bernhardt & Mongrain 2010; Nathan & Neve 2009; Skarlicki et al. 2008). Technological breakthroughs also create their own change contexts (Leidner & Kayworth 2006; Sampson & Fytros 2008), and production challenges or inflamed work relations may interrupt or stop change projects. These contextual situations not only encumber organizational resources but also create climates that negatively affect the change process.

Different organizational cultures (e.g. Schein 1988, 2004) also define organizations' relations to change: the change culture. The change culture is linked to an organization's past, including previous changes and how they have been executed and perceived. Many studies have identified history as an important factor in shaping change culture (e.g. Adriani 2003; McCarthy & Gilles 2003; Mitleton-Kelly 2003).

Another cultural perspective relates to how openly people can express their feelings related to change, such as anxiety created by the uncertainty of change. Change may influence an organization's emotional climate, which may, in turn, affect both everyday activities and the change itself. If an organization's culture sets barriers to open discussion concerning emotions raised by change, the emotional climate may become inflamed (Alvesson 2002; Smollan & Sayers 2009).

The above investigation relates to our final review of the mainstream findings in change-specific knowledge: the individual-level psychological factors of change. In the rational worldview, the review of emotions, attitudes, prejudices, and motivational factors often receives too little attention, and planning for these factors in CS is frequently neglected. By contrast, the research examining the role of psychological factors in change processes is so extensive that it is difficult to choose references to represent this category of change-specific knowledge (see e.g. Armenakis et al. 2007; Bridges 1986; Clark & Payne 1997; Cummings & Bromiley 1996; Law et al. 2004; Mayer et al. 1995, 2000). However, there is a mismatch between the overflow of change-specific literature and its exploitation.

The individual-level psychological discussion suffers many pitfalls. For example, it is too easy to blame all change implementation challenges on reluctant employees and their resistance to change. It is also too easy to construct logistic flow charts of change implementation that overlook individuals' reactions and feelings. Change planners and executors are often too

far from the reality and everyday life of the employees; thus, they are often surprised by the strength of people's reactions. We argue that change-strategic planning should better prepare for the psychological and irrational aspects of change. Though we all understand the importance of these psychological factors, they are often forgotten in practice (as our empirical data suggest). The disconnect between plans for change and the reality of their implementation was discussed with our informants and are examined in the empirical phase of this paper. Next, we examine the relationship between our focus, CS, and the categories of CM knowledge, as well the contribution of this relation to change implementation.

3. What is change strategy?

3.1 The construct

Among the constructs related to CM, *change strategy* remains unestablished and lacks a definition based on conceptual analysis. However, the use of CS can be found both in many different contexts and, like the macro models of change discussed above, on a more generic level. Owens and Steinhoff (1976) discussed CSs emphasizing problem-solving and social interaction. Chin and Benne (1970) classified CSs into three strategies: empiric–rational, normative–re-educational, and coercive. Dahlin (1978) categorized CSs into those based on authority (coercive or autocratic strategies) and those based on participation (democratic strategies). In his study on the implementation of educational innovation concerning school council reform, Niinistö (1980) applied CS and Dahlin's dichotomy: a fundamental and historical dichotomy that focuses on the meaning of people's participation and can be found in many discussions of CS.

Given this historical view of CS, its use is exceedingly varied; however, amazingly, an analysis of the term's meaning has not been included in the literature on CM. Though searches of 13 international databases of peer-reviewed journals for the term 'change strategy' and its many variations yielded some 350 matches, further analysis revealed no conceptual analysis of the construct itself. Searches of Google Scholar resulted in much more material, but the findings were even more varied. We found that CS is most often used in combination with other terms that tie CS to a certain context, such as strategies of climate change or strategies of changing people's health behavior (examples from our introduction). However, we did identify some articles that could contribute to more general CS theory-building. In a study of 129 organizations, Pries-Heje and Johansen (2015) recognized 10 distinctive CSs, of which the three most commonly used were the specialist-driven strategy, the production-organized/driven strategy, and the learning-driven strategy. McKechnie (1976) emphasized that '[…] complexity becomes an intervening variable affecting the relationship between the change strategy employed and the degree of success with which the change is implemented' (162). The complexity of change is characterized by degrees of dispersal, specialization, radicalness, equivocality, required reorientation, novelty, divisiveness, and forcefulness (McKechnie 1976). For these eight qualities or circumstances, McKechnie (1976) formed propositions for applying a suitable CS (McKechnie 1976). These two sets of CSs exemplify how applied CSs have been recognized by analyzing empirical data ex post facto and how different CSs have been recommended for special purposes based on theoretical reasoning. We could not find research material on the similarities of different CSs, though this was expected given the lack of a standard list of what CSs exist. Moreover, if the field has not defined CS, then it is impossible to know what a CS is and what it is not.

This lack of definitions and conceptual analysis has left the concept of CS vague and ambiguous. This may stem, in part, from the extensiveness of the work defining and contrasting the general term 'strategy', which has perhaps contributed to a feeling of familiarity regarding

CS that has obscured the need to define it specifically. Additionally, we are used to relating CS to executed changes—that is, changes that have been implemented historically—rather than using it to plan for changes to come. In this article, we introduce a different use for CS and propose that it be used especially in planning for change. This will be discussed next.

3.2 Definition of CS in this research

First, we position CS within a conceptual framework of change-related constructs. As this paper transcends theoretical and conceptual analysis, we try to keep the conceptual definitions as simple as possible. First, '"[o]rganisational change" remains an enduring and generic term for all forms of change-related activity in organizations' (By et al. 2014, 3). Under its umbrella is 'change management' (CM), which is widely used despite lacking a commonly accepted definition (e.g. Armenakis & Bedeian 1999). Here, we refer to CM simply as the management of proactive, intentional change processes in managerial contexts (see e.g. Burnes 1992). CM seems to have replaced 'planned organizational change' (introduced by Lewin in the 1940s and 1950s) in the same way that 'managing' has replaced 'planning' in many other disciplines. By 'strategic change', we refer simply to change that is of strategic importance to an organization, with a strategy defined and recognized within the actual context. It is obvious that CS is especially needed in strategic change.

We view CS as an essential aspect of intentional CM. We position our CS on the meta-level: it is not as generic a construct as CM or 'managed change' in general, nor is it a single theory or framework (e.g. sense-making, step models, theories of participation or resistance to change); rather, it is all of these together: systematic and rational exploitation of all we know about change. To elucidate this idea, we present Table 1.

Table 1. Positioning of CS

CONSTRUCTS, THEORIES	CONTENT, LEVEL OF DISCUSSION
Planned change, managed change, change management, change leadership	General level General terms that primarily indicate the intention to manage and control change. General level of discussion on change.
Change strategy, CS	Meta level Meta-level construct for orientation in planning for change. Criteria for rational decision-making concerning change. Criteria for selecting material from the tool level.
Single constructs and theories on different phenomena, operations and processes related to change	Tool level All change-specific knowledge that can be exploited in the planning of intentional change processes according to selected CS.

In Table 1, we refer to CS as contributing to rational decision-making in change. Nevertheless, the overall increasing complexity (e.g. Stacey & Griffin 2005) jeopardizes the endeavors of traditional management to completely manage things and processes. However, complexity theory is a good starting point for change-strategic thinking (e.g. Stacey 1996; Stacey & Griffin 2005). Although our thinking on CS shares many similarities with the ideas presented above, we do not offer another step-model or cookbook recipe for managing change. Instead, we take up some more general-level principles to be employed in decision-making in the planning of change processes.

Based on the ideas presented above and our previous work on change, we argue that:

CS is a set of conscious choices and decisions based on knowledge for creating combinations of principles and means for reaching the best possible outcome in the implementation of the targeted change in a given situation and for understanding the effects of the decisions comprehensively.

So, the question concerns the orientation through which the possible set of principles and means of change implementation are built and reviewed consciously, critically, and in an unprejudiced manner. The definition mostly concerns the change process focused on rational decision-making in a change challenge. It is not self-evident that decisions about change are made consciously and systematically; rather, we often simply select the means we are used to using. It is also important to choose who participates in decision-making, as this is, in itself, a change-strategic decision. The 'principles and means' selected for decision-making to accomplish a targeted change (i.e. the selected CS) form a unique combination. This means that only one combination can be employed at a time, and the potential effectiveness of the other possible combinations will never be known. A historical review of the means and strategies used in previous changes may help in learning about the change, but in a complex world, sticking too closely to past strategies may lead in the wrong direction. In practice, we are often stuck repeating the same actions and strategies. CS as a paradigm of 'planned change' means considering both the decisions regarding the change content and the change process together in the same change-strategic planning process.

CS has a dimensional nature. The principles and means of the change implementation are rarely 'either/or' judgments; rather, they tend to be 'both/and'. This means we may question the quantity of our CS: that is, how much should be decided in any given context. For instance, the participation of employees in change planning is not an 'either/or' issue but instead concerns how participation is directed and its quality (cf. Hampden-Turner 1990; Hampden-Turner & Trompenaars 2000). It is also a matter of reconciling different actors' values in the change-strategic process, which is, accordingly, also a process of values (Hampden-Turner 1990).

3.3 The generic criteria of CS: items for an operational definition

As our reconceptualization of CS cannot be linked to existing theory, models, or practices, we base our search for an operational definition of CS on the ideas in our conceptual definition. Change-strategic action is a social artifact without an exact counterpart, as many different kinds of change actions could be seen as 'change-strategic'. In the operationalization, we can rely on change-theoretic research to only a very general level. Thus, we choose CS criteria that can be justified by generally agreed arguments. Next, we elaborate on the essential points of our conceptual definition to form the generic criteria of CS and the basis for executing the empiric portion of the research.

(1) Orientation: conscious choices and decisions in planning for change

Earlier, in Table 1, we positioned our view of CS on the meta-level. This requires a general and conscious orientation in planning for change, as well as choosing the right tools from the tool level. Together, these are a necessary but insufficient condition and the first step in planning for CS. How can we proceed to choose the means for targeted change in a rational and systematic way if we have no conscious orientation for such a choice? In practice, the failure to recognize a project's change features can lead to several problems.

(2) Using a scientifically reliable knowledge base in CS

It is rational to base change decision-making on knowledge concerning the change and CM. In a complex world, this approach is even more important. Though it is change-strategic to base decision-making on knowledge, it is also change-strategic to admit the boundaries of the knowledge. Just as we accept boundaries in our rationality (e.g. Simon 1996), our CS should prepare for the irrational, and we should also have other CS options. Ready-made models or strategies are often too rigid in a complex world. Thus, we see CS as an open model that directs decision-making toward certain selections but does not restrict it with overly detailed specifications. This leaves space for contextual selections but puts a lot of pressure on individual decision-makers.

The phrase 'decisions based on knowledge' in our definition refers to becoming aware of not only the context of the change but also any 'relevant knowledge' concerning the means of implementation. This links CS-specific knowledge to the psychological, social-psychological, sociological, and educational research traditions, thereby addressing a particularly challenging demand: Scientific knowledge is reliable in principle, but what is relevant in a given situation? Because of the contextuality (to which we return later), 'knowledge' in our definition cannot refer to any particular change knowledge (theory, paradigm, model, etc.). Thus, CS neither includes nor excludes any knowledge, but, rather, leaves the decision to the 'rational decision-maker' (i.e. one who has the orientation to seek it). As the knowledge on change is abundant, rational decision-making is especially demanding.

(3) Contextuality

We emphasize the contextuality and flexibility of CS in a complex world. In traditional, linear strategic thinking, planning begins with various analyses of the environment and its own operations and processes, as well as the identification of critical success factors (e.g. Andrews 1987; Ansoff 1965). Similarly, strategic change demands an awareness of the environment and the context of change, such as people's burdens and their levels of motivation and engagement. According to the strategy analogy, reaching a common view and understanding of a change and its environment is the first phase of planning. More generally, this is related to the contextuality of the change, which is referenced in many of the step-models above (e.g. Kotter 2012).

For contextual reasons, we cannot go too far to fix the CS and move to the tool level. For instance, though employee participation seems to be one of the most favored principles in change implementation, we cannot be sure that it is the appropriate strategy in all situations and contexts. Thus, CS operates here on a more general level: the decision-maker should seek relevant knowledge on how to react to participation in a given situation and context. This contextuality is the reason decision-making is so demanding and rigid, ready-made models fail.

(4) Systemic orientation in decision-making

'Understanding the effects of the decisions comprehensively' suggests a systemic view of the organization, such that activities meant to contribute to a change may affect targets beyond those intended. For instance, change in an organizational structure may have unwanted outcomes on an organization's social system. Too often, we indulge in partial optimization, changing one part rather than seeing the totality. A good CS examines the change challenge from a helicopter perspective and understands the relations of interacting subsystems.

3.4 CS in brief

Contrary to the CSs found in our literature review, our approach is generic and focused on future changes, rather than executed ones. Though its content is not precisely defined, it considers what should be included in planning CS, emphasizing the uniqueness and contextuality of building a CS. The criteria discussed above are summarised in Table 2. The two first categories are selected based on rational reasoning made above, and the criteria are mostly self-explanatory, though some references have been included in the table below to justify their selection.

Table 2. Selected criteria for recognizing CS-type change planning

CRITERION (ARGUMENT OF SELECTION/ REFERENCE)	CONTENT, DESCRIPTION OF CS ACTION
(1) Orientation towards change: conscious decision-making concerning CS options (rational reasoning)	Recognizing the issue in question (development project, etc.) as a change. Sensitivity and ability to identify the features of change in decision-making concerning projects. Being alert for changes.
(2) Basing decisions concerning the change on relevant and scientifically reliable knowledge (rational reasoning)	Exploiting the relevant knowledge on change when selecting the principles and means for the change implementation. Here, we refer mostly to 'theoretical knowledge'; however, decision-makers' own experiences may be 'relevant knowledge' as long as they are consciously and critically reviewed.
(3) Understanding the contextuality of the change (e.g. Bernhardt & Mongrain 2010; Deal & Kennedy 1982; Gino & Pisano 2011; Hoffstede 2001; Karp 2006; Leidner & Kayworth 2006; Nathan & Neve 2009; Sampson & Fytros 2008; Skarlicki et al. 2008)	The special features of the industry and organizational culture and the change history are comprehensively considered, as are the firm's financial and productional situation, organizational climate, and work relations. Further, the workplace well-being and the employees' expertise and competency are reviewed with regard to the requirements of the change. The cultural compatibility and culture risk of the change are critically evaluated.
(4) Systemic orientation in decision-making on change (e.g. Andrew & Moir 1970; Gharajedaghi 1999; Griffiths 1964; Karp 2006; Kuhn 1974; Owens & Steinhoff 1976; Senge 1990)	Change-strategic evaluation is executed comprehensively in an attempt to understand the effects of different subsystems on one another. What are the overall implications of the change for the whole organisation and not only the target system?

The selected CS criteria are types of macro-level preconditions. The first seems self-evident; however, in practice, many problems emerge due to the failure to recognize the features of change in a project. The second criterion is the most essential, as it covers in principle all other aspects of CS. However, this does not require knowing all the knowledge on change; rather, it is more of an orientation towards finding what knowledge can be applied and evaluating the relevancy of the knowledge selected. The second two—the contextuality and systemic views—were selected from innumerable categories of CM knowledge and are justified by the references in Table 2. The selection of these criteria was our way for starting the exploratory research (e.g. Stebbins 2001) and the operationalization of CS, while also opening the general discussion on CS. In the next section, we review how the four criteria of CS are realized in practice.

4. Executing the study

This research is a qualitative case study by nature and was executed mainly in two organizations, though some individuals (consultants) with knowledge of a wider range of organizations and industries were also interviewed. The two case organizations were large ones: one was private (Pri) and the other was in the field of public administration (Adm). We selected large organizations as these often execute extensive change and development projects and are likely to have more specialized resources for CS planning. At the request of the case organizations and to ensure open discussion, it was agreed that the organizations would remain anonymous. Thus, we cannot provide more detailed information about them.

In considering who (which positions) might have views on change implementation, we chose human resource (HR) specialists or change managers (if there were any). We felt that, among other possible specialties with their corresponding educational streams and change-specific contents, especially behavioral sciences, HR specialists held the most relevant basic education, as they are trained to know about an organization's human resources. Moreover, one of the roles that is often assigned to HR is that of 'change agent' (Ulrich et al. 1995). Although top management usually makes the decisions regarding change content, HR is usually involved in change implementation. Consultants are also heavily involved in change; thus, some were interviewed in addition to the case organizations. Of the 30 total interviewees with the case organizations, 24 were HR specialists, and the rest were managers who faced change challenges in their line organizations. The average age of the interviewees was approximately 40 years, and the great majority (23) were women. The informants' education level was high, with 24 out of 30 holding at least a master's degree. One feature of change professionalism is that there is usually no special education for it: Although many academic sciences contribute to the understanding of change, change seems to be multi-scientific in nature.

In the data collection, we applied a semi-structured depth interview (SSDI; Wengraf 2001) conducted by one researcher only. The interviews were recorded and transcribed. In charting this research on CS, we used the classifications introduced in Table 2 to form the interview themes. The subject was discussed using the following themes both indirectly and directly.

- In charting the change orientation (theme 1), we discussed how typical it was to recognize projects and development programmes as changes and to systematically analyze change challenges.
- In connection with the exploitation of change-specific knowledge (theme 2), we first discussed the interviewees' basic education how it supported acting as a change specialist. We also discussed the exploitation of change-specific theoretical knowledge in decision-making in change implementation. By the theoretical knowledge of change, we referred to the broad research observations or frameworks meant to contribute to the understanding of change challenges.
- The next theme for discussion was the interviewees' holistic and systemic view in reviewing change (theme 3). We first discussed what we meant by the holistic, comprehensive, and systemic view of change and then reviewed how the informants actually acted in this respect.
- With regard to contextuality (theme 4), we discussed how carefully various contextual factors (organizational culture, well-being, workload, energy for the change, etc.) were usually reviewed in planning for change.

- We also discussed concrete change projects executed in the organization and asked for stories about them. In this way, we obtained information about how the projects had been planned and decided and gained a chance to indirectly evaluate the projects from a change-strategic point of view.

In analyzing the interview data, the informants' comments were first related to the CS criteria in each of the themes. We applied a broad version of the framework analysis approach (cf. Lacey & Luff 2007) to chart the idea, as our operational definition of CS was tentative. Then, we searched for themes other than those that were pre-defined; however, since the interview contents could be classified into the given categories, there was no need for forming new categories, and no new criteria emerged. The analysis was based on reading the transcribed text several times. We aimed to achieve a hermeneutic understanding of the big picture, rather than an exact classification of single comments. We considered this approach appropriate for our exploratory research.

5. Results

The aim of the empirical phase of our research was twofold: to test the relevance of the four criteria we had chosen for CS and to review whether these CS criteria (components) were really in use when planning for change implementation in practice. As explained in the introduction, the question concerned the 'testing' of one tentative operationalization of CS.

5.1 Orientation towards change

In this phase, we formed the constructs of the *change mindset* and *orientation towards change* to describe how typical it was for the interviewees to review and regard different projects as changes and to recognize their change-specific features. We assumed that using change-based verbalization and constructs together with 'projects' (e.g. development and training projects) would influence our orientation towards change. This theme was introduced by asking, 'How often do you think of your strategic or operative projects as changes? Or do you not think of this at all and just start doing?' The most common answers to this question could be crystallized as: 'I have not happened to think about it'.

> Pri11: *Do we think that this [the project in question] is a change? Not for sure. At least we don't use that word […] As collisions happen, we notice that, 'Aha, this is a big change for the other party'. […]*
> Pri4: *I just start doing the project [without thinking about whether it is a change or not].*

We have a long tradition of different development projects, and the answers gave the impression that the informants' and top management's focus was on content and economic issues, or 'what issues'. By comparison, 'how issues', which would reflect an interest in the change process and in realistic possibilities for implementing change, were rare. Many of the informants thought that being more alert to recognizing features of change in projects would impact the planning of the implementation process. The informants also saw projects emerge 'as given' by management, which could affect how creatively and spontaneously the implementers reacted to the process planning. Above, we referred to the need to see the whole change process—both content and process decisions—as unified. A more integrated, holistic view on change might contribute to change-strategic planning and ground any review of the success of implementation more deeply in reality.

5.2 Utilising knowledge on change: change-strategic expertise

The inclusion of the use of change-specific knowledge in CS criteria is related to common endeavors to rely on real knowledge in decision-making (cf. Elster 1989; Paronen 2015). It is also closely related to the competencies of change: the orientation to recognize, select, and exploit knowledge relevant in the focal change context. As noted above, the nature of change knowledge (like knowledge concerning management in general) challenges its users to employ critical and analytical thinking. Since this is often arduous and working life is busy, decision-makers often deploy the simple and fashionable '-isms' of their consultants. This seems related to the differences in people's basic education and orientations toward theoretical and analytical deliberation.

The answers and immediate reactions to the question 'How often do you benefit from theoretical knowledge of change [what 'theoretical knowledge' meant was discussed] in your decision-making?' were generally very short and clear. In practice, the informants did not lean on theories or models of CM and viewed any connection to the construct and theoretical world of change as subconscious.

> R: *[…] so you feel that you don't have such know-how and competence of the CM theories that you could exploit in the changes?*
> *Pri4: I feel that I cannot wrap it up […] I think I don't take it up very strongly… it is not conscious so that I would take up a tool book to talk about [it].*
> ---
> R: *Do you see that you can benefit from theories and models [on change]? Do you lean on such stuff?*
> *Pri12: At present, no, at least not consciously. But I'm sure it would be useful for understanding the phenomenon.*

Further, experiences of exploiting knowledge of one's basic education in change were rarely reported. Of the 30 informants, 8 had an educational background that could, in principle, be exploited in CM; however, nearly without exception, they did not connect their own change actions with their basic education. When asked, the informants usually felt that they were no better 'masters of change' than other members of the organization, such as line management. Many referred more often to an individual's personal qualities and interests in this respect. However, human resource development (HRD) specialists seemed to have some special expertise in change implementation. This is because of HRD's usual role in change: once top management has decided on a change, HRD is employed in the implementation. Accordingly, the question seems to be one of learning by doing. Since many of the informants outside HRD felt that they had very little to do with change (since they had other, more urgent responsibilities than those of change), they were unable to develop any change-strategic expertise. We argue that this is a challenge in working life in general: organizations' change competencies are not systematically developed or assigned to any member or group. Instead, these responsibilities are often given to an outside consultant, an approach that does not develop an organization's own CM competencies. An essential part of strategic competency is the ability to change and be agile in implementing strategic projects, and one strategy for achieving this is to build change-strategic competency in an organization's own resources, such as HR (cf. Morris 1996). Though they had not considered it before, the conversations made many informants see the importance of an organization's change-strategic competence.

5.3 Contextuality in change and CS

The construct of *contextuality* is pervasive and multidimensional; however, rather than giving it an exclusive definition, we decided to see which emerging issues could be classified in this category. The theme was generally introduced in the interviews by a question like, 'What kinds of things do you see as important in affecting decision-making on change?' The first category to emerge was related to power issues and is can be exemplified by the following expression: 'Those in charge of planning of change implementation must have genuine power'. In the case of HR, for instance, this meant endeavors to reach an authorized position in the top management team and to win credibility by successfully functioning in change. This contextual factor relates more generally to the strategic culture of an organization. Moreover, it is structural and may be rigid with regard to change.

Another category of contextual factors to emerge related to more situational issues, as mentioned in Table 2. A heavy workload, lack of time, and disturbances in the production processes were the most frequently mentioned contextual factors hampering the rational implementation of change. Too many changes at a time and a lack of coordination in their execution also emerged as implementation problems. These issues negatively impacted employees' well-being and motivation for change. From a change-strategic point of view, none of the informants considered the importance of preparing for contextual factors or including contextual analysis in implementation planning. It is remarkable that, though everyone seemed very aware of the various contextual factors, systematic CS was missing.

5.4 Systemic, comprehensive orientation on change

The decision to include a systemic view on change in the CS criteria is supported by extensive literature and research material (e.g. Andrew & Moir 1970; Gharajedaghi 1999; Griffiths 1964; Karp 2006; Kuhn 1974; Luoma 2006a; Owens & Steinhoff 1976; Senge 1990). A systemic view emphasizes a comprehensive or helicopter perspective, which means seeing the side effects of a planned change and understanding the meaning of a critical review of the joint effects of an action. Often, this means also breaking the boundaries of organizational structures (e.g. departments, units, or administrative subdivisions), which might be very challenging in, for example, bureaucratic public organizations.

The informants seemed very aware of the meaning of a holistic view on change. Some felt they had an ability to compose themselves in a helicopter perspective and believed that this is an important aspect of a change specialist's expertise. We hypothesize that this more comprehensive orientation may be due to the majority of the interviewees having a degree in social science or education. Even when the meanings of holistic and systemic orientation were understood, the interviewees' organizations generally did not view consideration of the totalities in changes as good.

> R: *How about taking into account the systemic view and problems of partial optimisation [explained] in change? Is everything smartly in control in this respect?*
> *Pri2: Not in smart control at all… when we change something, it may deteriorate things elsewhere […] This word, 'partial optimisation', describes things well. [For instance], if we give people incentives only for having satisfied customers, everything else may be neglected, so we would have lots of satisfied customers, but the bottom line is negative.*

The informants also described their experiences and failures in reaching a comprehensive view. They saw the need for more holistic preparation but found that, for one reason or another (usually time constraints), management had pushed the changes through as quickly as possible. This approach, prevalent in organizational culture, can create barriers to a more comprehensive approach to change. To conclude, our material revealed that a 'systemic view of change' as an important criterion of CS was not optimally realized.

6. Conclusions

As CS is neither an established construct nor a well-defined phenomenon, it is only natural that our research is explorative by nature. Our aim was to refresh and reconceptualize the commonly but confusingly used concept and to tentatively chart and experiment with the idea. Accordingly, it was clear and in line with expectations that we could not identify a conscious and 'pure CS' as we defined it (i.e. concerning both the process of making it and the documentation of CS as an end product, as most organizations have concerning their strategy). Instead, we examined features of change-strategic thinking as operationalized above. From the interviews, we observed only minor indicators of change-strategic thinking and action. CS is a theoretical and difficult construct, and it is natural that change actors and even specialists approach change from more practical starting points. However, it is comforting that, when taken out of its theoretical frame and described in practical terms, change-strategic thinking was regarded as reasonable.

From a research point of view, the thinking introduced above includes many open questions, the most important of which is the operationalization of CS. Which things should be included in the criteria of CS, and which things are the most essential to make decision-making on change 'change strategic'? With respect to strategy (i.e. business strategy), it is difficult or even impossible to find absolute criteria for the quality of a strategy, an issue that also concerns CS. The criteria introduced above were both scientifically arguable and very general. So, what is new? First, our entire approach is novel, since we could not find any examples of similar change-strategic scrutinizing in the literature. Second, our data indicate that systematic exploitation of change-related scientific knowledge is not yet routine, even though the exploitation of relevant knowledge should be the starting point of all the change-strategic thinking, as it encases all other CS criteria. Knowledge of change is hierarchic by nature, and wide totalities reveal innumerable groups of single observations, which are, in turn, often refined into procedures. Ideally, our position on the theories and models of change should be curious and positive, but also analytical and critical.

The empirical observations of this research can and should be discussed critically. The research faced the same pitfalls as other qualitative interview-based reviews: the informants had their own subjective realities of change, about which we made subjective interpretations. In this case, we were very aware of this limitation and tried to avoid misinterpretations. As the data were gathered from only two case organizations, we did not strive for generalisability and transferability; rather, we sought to expand our view and increase the face validity (Eriksson & Kovalainen 2008; Gravetter & Forzano 2012) of our research. For this, we interviewed five people with wide experience in a variety of industries (three were consultants). Generally, with respect to the industries in which the informants had worked, our observations were valid and new. The four criteria we chose for CS were found to be reasonable and useful in planning for change implementation. However, this was only the first experiment with the selected criteria; future work should aim to complete and test the idea of the criteria. Further, the relation

between the meta-level (which we could also call the 'orientation level') and the tool level (i.e. the concrete selection of means for change) needs more theory-building and empirical testing. This is especially important for creating practical tools for managers.

The most important contribution of our research is its reconceptualization of CS and the endeavor to give it more systematic and generic content. Previous definitions often connect CS to one historical change at a time; we could not find more generic examinations connecting CS dynamically to planning for change implementation. Even our own empirical data did not allow conclusions on the commonness or quality of the change-strategic thinking, despite the emergence of a contradiction between CM theory and its exploitation. To proceed on this path, more research should focus on the operationalisation of CS and its empirical testing. Few things in modern society that are more important than the quality of change implementation, and we should welcome all progress towards its development.

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Nordic Private Shareholder Engagement as an ESG Risk Management Strategy – From Agents to Stewards

Anna Romberg

Abstract

This study aims for advancing the understanding of shareholder impact on corporate risk management processes in the context of alleged misconduct. The study analyses 47 engagement dialogue case reports depicting how environmental, social and governance (ESG) risk management has been externalized to active institutional owners on a collaborative engagement platform. Based on qualitative content analysis a conceptual model for ESG risk management is proposed. The model comprises of three empirically grounded concepts: *aligning situational context, impacting internal context* and *managing the external context*. The concepts are explored through the lens of agency and stewardship theory and propose a more nuanced view of management as self-centered agents. Responsiveness to shareholder demands on stewardship is the key to successful private engagements. The paper contributes by clarifying that ESG risk management is about stewarding shared resources and embracing the management of risks external to the corporation in contrast to purely managing reputational risk.

Keywords:

Corporate governance, Shareholder engagement, ESG risk management, Agency and Stewardship theory, Qualitative content analysis

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1. Introduction

During the last years, we have seen an increased scrutiny and criticism of how Nordic companies conduct themselves in terms of environmental, social and governance (ESG) responsibilities. The justifiable criticism has related to investments in environmentally harmful business such as brown coal, prioritization of financial profits at the expense of dignified care in privately managed caring homes, and widespread bribery schemes while conquering new telecommunication markets. In addition, several Nordic banks are investigated for being instrumental in laundering dirty money on a global scale. The scrutiny has revealed contradictions between stakeholder expectations how ESG risks are managed in practice (Mason and Simmons, 2014).

In this study, it is argued that corporate ESG risk management has been externalized to stakeholders including social interest groups and active owners, mainly institutional shareholders. The study focuses on how active owners, as a response to alleged ESG risk incidents leading to bad news, assess and influence the corporate conduct through a private engagement dialogue on a collaborative engagement platform of invited shareholders led by the professional engagement firm (Cowton and Sparkes, 2004; Vandekerckhove et al., 2007). Qualitative data compiled in incident driven engagement dialogue case reports are analyzed to explore '*how active owners, through the private engagement dialogue, aspire to impact on corporate ESG risk management practice*'. The objective is to advance the understanding of what happens behind-the-scenes in the private engagement dialogue to support improved corporate ESG risk management.

Although shareholder engagement has become an increasingly popular tool in practice to develop relationships and negotiate solutions to ESG issues (Eurosif, 2018), there is a call for more field-based empirical research relating to shareholder and company interactions (Rehbein et al., 2013; Dimson et al., 2015; McNulty and Nordberg, 2016) and for how companies are affected by the private engagement process (Sjöström, 2008; Semenova and Hassel, 2019). This paper presents an exploratory view on the interaction between shareholders and the company on matters related to downside ESG risks. At the outset, management is acting as agents, but as the process evolves in successful engagements, management is transferred into stewards. This study proposes a more nuanced view of management as self-centered actors and presents a conceptual model for stewarding ESG risks. Based on qualitative content analysis the engagement dialogue is depicted based on three empirically grounded concepts: *aligning situational context, impacting internal context* and *managing the external context* which lays the foundation for the conceptual ESG risk management model presented in this paper.

The remainder of this paper is structured as follows; the following section outlines previous research and theory relating to agency and stewardship theory as well as shareholder engagement; the next section describes the engagement process, the role of the engagement platform, and the empirical data followed by a section describing the research process, including the methodological approach. Finally, the results and conclusions are presented as well as limitations and areas for future research.

2. Previous research and theory

This section presents an overview of shareholder engagement related research as well as the fundamental concepts of the agency and stewardship theories.

2.1. Shareholder activism and engagement

The rise of Socially Responsible Investments (SRI), or nowadays also referred to as Sustainable and Responsible Investments, has increased investor awareness of the economic value of ex-

tra-financial information relating to ESG risks and opportunities (Brammer et al., 2006; Renneboog et al., 2008). A key driver for SRI is the belief that higher company standards for ESG risk management pay off in the long-run through both potential equity premium and by reducing downside risk and operational uncertainties (Hebb et al., 2012). A responsible investor is one who has a specific focus on the impact the business has on the environmental and social context where business operations are seen as a means for advancing sustainability while generating financial returns (Lydenberg, 2007). The attempt by investors to influence companies is often associated with the term shareholder activism. A shareholder group can engage in coordinated action to utilize their unique rights to facilitate change through various means, such as filing a shareholder resolution at the Annual General Meeting with supported media exposure, or a private engagement dialogue with a company over the ESG issue. According to Rehbein et al. (2013), corporations have four options for responding to shareholder activists. They can seek for the omission of the resolution, let the resolution go to a vote by all shareholders, seek consent or action, or engage in a private dialogue with the shareholder activist group. Informal and private dialogues between shareholders and management are considered a cost-efficient strategy with an opportunity for a collaborative approach. Shareholder resolutions are public with potentially negative consequences for firm value (Gillan and Starks, 2000). Through the engagement dialogue, active owners aspire for bringing about ethical, social, and environmental change (e.g. Parker, 2014; Adams and Larrinaga-González, 2007) and improved corporate conduct and corporate governance (Lydenberg, 2007).

It is debated whether shareholder engagement is a successful way for changing corporate behavior (David et al., 2007; Haigh and Hazelton, 2004; O'Rourke, 2003) and previous research has challenged the notion that engagement would be a responsible ownership practice. Shareholders are not necessarily granted sufficient access to the company (Spitzeck and Hansen, 2010), and the process may not facilitate real change in actual business practices and decisions (Greenwood, 2007; Spitzeck and Hansen, 2010; Sjöström, 2008). Dimson et al. (2015) have in a larger scale empirical study analyzed corporate social responsibility engagements with U.S public companies from 1999-2009. They conclude that engagements, where the company is subject to reputational concerns, have a greater possibility to succeed and implement desired improvements. No market reaction is noted for unsuccessful engagements, but a positive market reaction is noted during the first year after a successful engagement. Two years after a successful engagement Dimson et al. (2015) noted improvements in the corporate governance structure of the companies. Semenova and Hassel (2019) have empirically examined private corporate ESG dialogues by Nordic institutional investors with global firms and their subsequent implications. They document that engagements are driven primarily by ESG risks and not current financial underperformance. Their study concludes that ESG policy, performance, and reporting quality improve after activism, which indicates that the objective of activism is met in successful engagements.

Past research asserts that an honest and transparent dialogue between stakeholders and the target company is fundamental for the implementation of corporate strategy and for ethical decision making and firm behavior (Noland and Philips, 2010). Through the dialogue, the firms will be in a better position to predict and understand changes in the demands of the external context and even to respond to these changes, which in turn reduce uncertainties and provide an opportunity for timely and relevant disclosures (Rehbein et al., 2013). The term dialogic engagement is proposed by Bebbington et al. (2007) for describing how the change in relation to corporate accountability and environmental, ethical, and social responsibility can

be facilitated through stakeholder intervention. The term dialogic engagement entails that it is no longer sufficient for corporations to interact with their shareholders, but to acknowledge the need for mutual recognition, respect, and collaboration (Noland and Phillips, 2010). Target company responsiveness to active investor demands is seen as the key to successful private engagements.

2.2. Agency and stewardship theory

A scandal may be fuelled by that perceived company practice is not corresponding to what in fact is being implemented. Separating between what is said and what is done in practice. A decoupling of walk and talk (Meyer and Rowan, 1977) may be used as a response strategy to external pressures and allegations of misconduct depending on how well the expectations of various stakeholders are aligned (Crilly et al., 2012). In the context of engagement, this relates to how well shareholders are aware of the actual practices within the firm. The agency theory presumes that there is a gap between managers and shareholder risk preferences and presents managers as self-centered and selective agents with regards to how risks are assessed, managed, and communicated. This results in an agency conflict between shareholders and management when e.g. management may prioritize financial returns while shareholders expect both financial returns and taking responsibility for longer-term ESG matters. The agency conflict may be furthered by information asymmetry due to that management have more information about the company, its risks, and actual performance, than the shareholders (Jensen and Meckling, 1976).

Involuntary disclosures, where information about the company and its operations surfaces in the public domain against the will of its managers, may have detrimental effects on the company (Dumay and Guthrie, 2017). In these circumstances, companies tend initially to deny the allegations (Vandekerckhove et al., 2007) and spend more resources on resisting the external pressures than remediating the actual root causes (David et al., 2007). An et al (2011) propose voluntary disclosures as one strategy to address the information asymmetry and subsequently reduce the agency cost. Voluntary disclosure of negative ESG related incidents are not necessarily perceived as a negative signal by shareholders, but may instead be perceived as a risk mitigation tool to display risk awareness and proactivity (Reimsbach and Hahn, 2013). A company reporting the bad news itself, as opposed to being unveiled by a third party, can reduce the negative impact of the incident and increase shareholder trust (Fennis and Stroebe, 2014). In contrast to the agency theory, the stewardship theory (Donaldson and Davis, 1991) is built on the assumption that management and employees intrinsically desire to perform well and in a less self-interested way than agents. The desire of management is to be a good steward of the corporate assets and assume that management is aligned with the interests of the principals (Donaldson, 2008). The managerial action is built upon an assumption of a social contract representing a commitment between the owners and the organization represented by its employees and managers, and the wider stakeholder context in which the company operates. Stewardship is thus defined as the actions taken to respect this contract, or covenant when personal interests are subsided in preference of more long-term and sustainable goals (Hernandez, 2012).

Through the lens of stewardship theory, a corporate scandal does not originate from the agency conflict and information asymmetry but from how management is navigating a certain cultural context and from the applied management philosophies at large (Davis et al., 1997). Stewardship is to be separated from altruism in the sense that stewardship behaviors promote

the interests of multiple stakeholders and beneficiaries to promote collective and long-term good (Hernandez, 2012). Donaldson and Davis (1991) argue that the agency and stewardship theories are not antagonistic but the application of these theories is dependent on the phenomena and the situational contingencies. The agency conflict is commonly managed through intensified monitoring, external verification and audit (Chow, 1982), financial incentives for management, and subject matter board expertise (Jensen and Meckling, 1976; May, 1995) while stewardship theory promotes the creation of enabling and empowering structures for top performance. Corporate governance becomes a tool for installing the right structures to support coordination between the managers and shareholders (Donaldson, 1990). Organizational and employee behaviors can be transformed through a shift from agency i.e. control of distrust, to stewardship i.e. facilitating right behavior through collaborative structures (Hernandez, 2012; van der Kolk et al., 2015). These structures relate to e.g. leadership and behavior as well as management systems emphasizing control through interaction and relationships (Hernandez, 2012).

Stewardship presumes being aware of and taking responsibility for externalities, such as the environment and society, in which the firm operates. The social contract, between the firm and its wider stakeholder context, depends on transparency and collaboration. As such, target firms might be more responsive to shareholder engagements as stewards than agents.

3. Research method and process

An overview of the empirical data, the method as well as the coding process, is outlined in this section.

3.1. The engagement platform and case reports

The study analyses 47 engagement dialogue case reports, documented by an engagement consultant over eight years. As a response to ESG related allegations some shareholders, such as institutional investors, may outsource the engagement dialogue and fact-finding to an engagement consultant[1]. The engagement consultant possesses subject matter expertise and experience in how to facilitate dialogues with companies in a professional manner. Outsourcing the dialogue may, however, result in that the shareholders distance themselves from the actual misconduct and consequences. In addition, there is evidence that the engagement consultant may possess home bias i.e. favoring engagements in a particular setting such as a regulatory context well known to them. (Bauer et al., 2013). The engagement consultant, facilitating the dialogues on a platform for institutional investors is subject to analysis in this study. The engagement professional is a privately held, investor independent company founded in 1992 in the Nordic. The consultant is a leading provider of global engagement services and had over 50 employees at the time of analysis. Since then the number of employees has expanded globally of which a vast majority are dedicated entirely towards corporate engagement dialogues. The engagement philosophy is based on the premise that changes in business conduct drive changes in corporate value and enables effective risk management. (GES, 2014).

The engagement process is incident driven as the consultant commonly initiates a dialogue with the targeted company after alleged violations have come to the attention of the

[1] According to the Independent Research on Responsible Investment (IRRI) Survey results presented in December 2015 44 % of asset owners engage directly, 28 % outsource the engagement to a specialist firm, 23 % expect the contracted asset managers to engage on their behalf and 5 % do not engage at all on stewardship issues. The survey was completed by 1,287 analysts, portfolio managers and companies from 681 firms globally and they voted for 836 different firms and 538 individual analysts. The survey is presented at https://vimeo.com/149177753.

consultant. The violations are assessed against global norms, such as UN Global Compact and OECD Guidelines for Multinational Enterprises. When an engagement case has been opened the engagement consultant performs initial risk analysis and initiates the dialogue with the target company. The engagement dialogue is managed via letters, emails, telephone conversations, and direct dialogue and meetings with senior management in the target company. The dialogue is documented in an engagement case report describing the dialogue, including process goals, response, and progress status from a performance perspective. The case reports also include information about the location for the incident, root causes, and sources of information for the violation. (GES, 2014). The engagement data is made available to the clients with a stake in the target company providing an opportunity for an exchange of information on the engagement case between the professional consultant and participating investors. A proprietary database of ESG incidents in MSCI (Morgan Stanley Capital International) world companies and related engagement case data, were used as empirical data in this qualitative study. The complete database consisted of 858 engagement case reports relating mainly to dialogues on behalf of Nordic institutional investors with a stake in MSCI world target companies. The case reports were documented during 2005-2012. The case reports provide a rich description of the individual engagements suited for qualitative analysis.

This study uses secondary data. However, it should be mentioned that the researcher during 2013 - 2016 had a professional responsibility for the ethics and compliance work, as well as remediation program, at one large Nordic company subject to an engagement dialogue facilitated by the engagement consultant. The dialogue with this company was not part of the data provided by the engagement consultant as the dialogue was launched after 2012. During this process, the researcher, in the capacity of an employee for a target company, had several meetings with the engagement consultant who were gathering information about the alleged misconduct and more specifically providing recommendations and asking for evidence of improvements from the target company. This provided the researcher with a first-hand experience of the type of questions and level of documentation requested including formal sign-off of meeting minutes and verification of company statements.

3.2. Method and coding process

This study adopts an inductive approach whereby concepts are derived from the empirical data (Schreier, 2012) through qualitative content analysis (QCA). According to Schreier (2012) QCA can be used to describe qualitative material in a systematic way. In addition, QCA reduces the data to answer the particular research question. Elo and Kyngäs (2007) propose that QCA is suitable for systematic data analysis and coding of large amounts of texts. The data for the coding can be derived from various sources, such as interviews, observations, visual materials, and documents. In this study, the data consisted of engagement dialogue case reports documented by the engagement consultant on a platform. The platform provided real-time information on the engagements to investor clients and an opportunity to collaborate on ongoing engagements in target companies. As the purpose was to describe the data, the coding frame was built inductively based on a data-driven strategy conceptualizing the main themes addressed in the private engagement dialogues on the platform.

The research process was divided into three phases. Preparation of the material, organizing the material, and structuring the material for reporting purposes with the input, main activities and output summarised in table 1. Throughout the process, three meetings were arranged with the engagement consultant to discuss the documentation process as well as test the emerging concepts.

Table 1. Research process overview

PHASE	INPUT	ACTIVITIES	OUTPUT
Preparation of material	Raw data from the engagement consultant	Reading through cases, sorting cases per issue type in spread-sheet	858 case reports sorted in four issue types
Organising	Text field data for 858 case reports	Organising case reports in a spread-sheet based on richness of data in text fields. Cases selected to ensure a representative sample per issue type.	Coding frame based on 23 cases and eight inductive categories
Structuring	Coding frame with eight categories	Selective coding of 24 additional cases. Cases selected to ensure a representative sample per issue type.	Three core concepts

The initial phase, preparation of the material, included the process of getting familiar with the material and structuring it to fit into a spread-sheet to allow for further sorting and analysis. During this iterative reading process, the researcher read through the cases and field descriptions with the purpose of getting a view of the richness and coherence of the data. During this phase, it became clear that the empirical evidence consisted of heterogeneous descriptions of the dialogue between the engagement consultant and the target company. The main contents were an explanation of the incident, a reference to the allegedly violated ESG requirement or norm, the improvement requirements from the engagement consultant, and a description of the actions employed by the company.

During the preparation phase, it was noted that the level of detail varied to some extent, with a natural variety of older cases containing more information than the newer cases and some company responses being more detailed while others had not been able to respond in an early stage of the engagement process. It was also noted that, although the database had several fields/ headlines, not all fields were filled into the same level of detail. One explanation being that some fields had been added to the database over time, resulting in that older cases lacked some information or had been documented in another field. Some of the cases were completed or closed while others were still ongoing.

The engagement consultant had structured the cases into a type of misconduct. The categories were Human Rights and Labour Rights violations, Environmental and Corruption incidents, Inhumane Weapons, and regional concerns in Burma. The categories Inhumane Weapons and Burma were omitted from the analysis as they relate mainly to another SRI strategy, negative screening, and exclusion of target, which means refraining from doing business within this industry or country. The latter types were not considered relevant from the perspective of improving ESG risk management within one company.

During the organizing phase of data mining, the fields with the richest qualitative data related to the origin of incident or allegation, company response as well as continued dialogue and recommendations were selected for further coding. The coding process started with a review of the cases with the richest data within each issue type (i.e. corruption, environment, human rights, and labor rights. The initial coding resulted in several hundred substantive codes, which were further sorted in excel and saturated through constant comparison, selective coding, and writing memos. After a detailed review of 23 case reports, eight data-driven categories had emerged, refining the QCA coding frame. The eight categories were named externalized

management, refuting responsibility, systemic non-compliance, dedicated competence, policies and procedures, third-party verification, transparency, and external collaboration. As the purpose of the study was to develop empirically derived concepts, cases were selected for analysis until the inductive categories saturated within the coding frame. The data-driven categories were further structured into three empirical concepts named aligning situational context, impacting external context, and managing external context.

During the process, a representative distribution of cases, per issue type, guided the selection of additional cases for coding. At the end of the process, a total of 47 case reports had been included in the process as outlined in Table 2.

Table 2. Case reports and coding sample per issue type

ALLEGATION	TOTAL POPULATION		CODING SAMPLE	
	# of cases	*% of total*	# of cases analysed	*% of total analysed*
Corruption	102	*12 %*	7	*15 %*
Environment	233	*27 %*	12	*26 %*
Human Rights	242	*28 %*	16	*35 %*
Labour Rights	281	*33 %*	12	*26 %*
	858		47	

4. A Model for ESG risk management

this section presents the conceptual model for ESG risk management.

4.1. An interplay between agency and stewardship

The objective of the study has been to explore how the shareholders, through the private engagement dialogue, aspire to impact corporate ESG risk management practice. A conceptual model for *ESG risk management* is presented based on eight inductive categories and three empirical concepts *alignment of situational context, impacting the internal context,* and *managing the external environment* as presented in figure 1. More detailed examples from the engagement case reports are included in appendix 1.

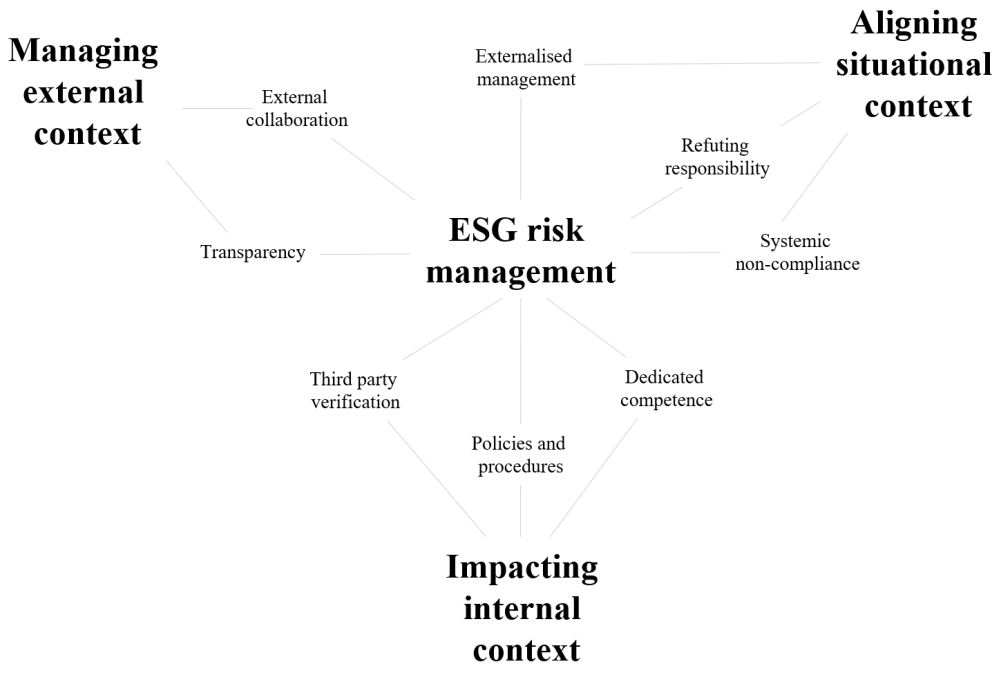

Figure 1. A conceptual model for ESG risk management

4.2. Aligning situational context

The incident driven engagement case reports analyzed reveal a need for alignment. The concept of *aligning situational context* has been derived from the categories *externalized management, refuting responsibility,* and *systemic non-compliance*. Management may not perceive the situation in the same way as the shareholders and are thus not able to act as stewards (Donaldson, 2008), the misalignment may also feed decoupling because of agency conflicts of the self-interest of management (Crilly et al 2012). Companies may also initially respond by refuting the responsibility and denying the non-compliance (Vandekerckhove et al., 2007).

The stewardship theory assumes the alignment of goals and objectives, between owners and managers, which will enable managers to act in the best interest of shareholders. (Donaldson and Davis, 1991). The inductive category *externalized management* portrays how the company management has externalized the stewardship of ESG matters. Prompted by the incident (e.g. public concerns raised in the media or through an NGO or industry association), the shareholders are initiating an inquiry regarding the actual company practice. The inquiry, facilitated through the engagement platform, is in this study seen as an external ESG risk management process where external parties bring ESG related non-compliance or concerns to the attention of the target company.

The case reports confirm the notions in previous research and anecdotal evidence that target companies tend to initially deny the allegations of misconduct (Vandekerckhove et al., 2007 and David et al., 2007). In several cases, the dialogue is initially revolving around establishing the company's responsibility for the alleged misconduct. The category *refuting respon-*

sibility demonstrates an initial denial or hesitation to embrace the allegations. Management is acting as a self-centered, defensive agent, reluctant to take in the alleged information.

The incident driven ESG engagement case reports also show that the alleged misconduct perhaps is not an isolated phenomenon, but part of systemic mismanagement of ESG risks. The companies, that now are accused of an ESG related violation, have signed up to e.g. the UN Global Compact principles, stating formal compliance to responsibility principles. The incident reveals gaps in actual compliance. The category *systemic non-compliance* reveals a gap between policy and practice (Meyer and Rowan, 1977) either as an evasive or emergent strategy to manage the shareholder demands (Crilly et al 2012).

4.3. Impacting internal context

The case reports depict how the shareholders, during the iterative engagement process, are viewing management both as agents and stewards and aspire to facilitate improvement in both formal policy and leadership practices. The shareholders are aspiring for *impacting the internal context* to monitor agency and support stewardship through improved structures and processes and ensure more effective coordination between the managers and owners (Hernandez, 2012; Donaldson, 1990). The concept of *impacting internal context* has been derived from the inductive categories *building competence, policies and procedures,* and *third-party verification.*

The agency theory presumes implementation of systems and control in a more constraining and directive manner e.g. management control and monitoring as well as recommending new competence to the board and dedicated board committees (e.g. Jensen and Meckling, 1976; May, 1995) whilst the stewardship theory facilitate improvement through collaboration, relationships and employee development (Hernandez, 2012; Davis et al.,1997).

There is a contradiction between the increased societal demands on corporations and a lack of trust and skepticisms towards the corporate capability to act as stewards (Mason and Simmons, 2014). Traditional means of third-party involvement and auditing are recommended to reduce the agency conflict (Chow, 1982).

4.4. Managing external context

The actual consequences from poor ESG risk management and lack of stewardship is not always direct harm to the company but constitutes a threat to external parties directly exposed to the harmful consequences of incidents related to corporate activity (Schneider and Scherer, 2013). As such, it is not sufficient to manage the internal context through e.g. building capacity, implementing policies and procedures, and auditing these activities. ESG risk management needs to be alert on potential incidents in both the internal and external context of the company (Bebbington et al., 2007). The concept of *managing external context* is derived from the categories of *voluntary disclosure* and *external collaboration.*

A key aspect of ESG risk management is to manage the elements of distrust (Mason and Simmons, 2014; Dimson et al., 2015). The distrust is evident both in the call for third party verification as well as transparent and *voluntary disclosures.* An et al., (2011) propose voluntary disclosure as a means for mitigating the information asymmetry and subsequently reducing agency costs. A company is expected to disclose both ESG risks and actual risk management and compliance. Voluntary disclosure of negative ESG related incidents can be perceived as a risk mitigation tool (Reimsbach and Hahn, 2013) to show risk awareness (Dumay and Guthrie, 2017) and increase trust between shareholders and the target company (Fennis and Stroebe, 2014).

Throughout the dialogue, the company is expected to engage in transparent disclosures and *external collaboration* with stakeholders to advance the corporate ability to predict and understand the changes in the external context. Private engagement can entangle the increased and revised demands on corporate responsibility (Rehbein et al., 2013). External collaboration is visualized by engaging in industry dialogues, developing common industry standards and monitoring and control mechanisms as well as implementing a broader stakeholder representation in boards. The purpose of external collaboration is to remediate and manage common and structural challenges in the external context. By engaging in mutual interaction with shareholders, the company will facilitate respect and an understanding of the impacts and effects from failures related to externalities of the firm (Noland and Phillips, 2010) and demonstrating to build capabilities to act as stewards.

5. Conclusions

Contrary to financial risk management, where the consequence for failure can be measured as a direct financial impact on the corporation, the consequences from ESG risk management failures are to a large extent external to the corporation with potential indirect financial consequences. The corporation may encounter direct financial consequences due to fines, costs for remediation, and lost sales, but the real damage is on the environment, society, and individuals. In this respect, a company is liable for managing risks and potential harm caused to others - to the environment and society in which the organization operates. ESG risk management is at its core stewarding shared resources and embracing the management of risks external to the corporation. Stewardship implies a responsibility for shared assets and moving beyond the immediate individual financial interests of the agency (Donaldson, 2008).

The conceptual model for ESG risk management process presented in this paper proposes an iterative process between viewing management as both stewards and agents. At an outset, management is viewed as stewards, but as the process evolves both agency and stewardship strategies are advocated for improved corporate ESG risk management. The paper proposes a more nuanced view of management as self-centered actors and portrays how investors assume that management can and should act as stewards. Contrary to traditional agency conflict-driven studies, such as Van der Kolk et al (2015), where management act as a rational agent with short-term economic interests, this study proposes that shareholders should consider management as stewards to assume responsiveness for the alleged ESG incidents with more long-term consequences for firm value (Davis et al.,1997; Hernandez, 2012; Mason and Simmons, 2014)).

The paper also acknowledges that in a private engagement process an alignment with the situational context is needed. A common understanding of the ESG incident, the root causes of related risks, and their relation to the target company need to be established. A misalignment of the situational context leads to the de-coupling of responsibility and action. Target company non-responsiveness to an investor dialogue results in an inefficient engagement dialogue where no actual change to management behavior is achieved. The risk to exclude the target company from investor portfolios increase with an unsuccessful engagement. Responsiveness to investor demands on ESG risk management includes real and tangible changes in the internal context. Public commitment to ESG risk management needs to be supported by dedicated competence, policies, and procedures and to be robust enough to pass third party verification and audit.

Finally, ESG risk management, presume efficient management of the external context. Shareholders expect companies to transparently disclose actual remediation and risks (Dumay and Guthrie, 2017; Fennis and Stroebe, 2014; Reimsbach and Hahn, 2013). In, addition it is expected that the company not only works in isolation and with internal processes but engage with the external context through shareholder collaborations and community engagement. A fundamental change in ESG risk management processes requires more than formal policy statements and disclosures in sustainability reports. Responsiveness to shareholder demands on stewardship is the key to successful private engagements in a situation when ESG risk management is externalized to active owners and their professional consultants.

5.1. Limitations

The empirical data established a particular frame for the analysis as the origin of an engagement case is a call for action from investors on companies due to an incident or scandal. As such, there have already been some public indications of misconduct or potential violations of human rights, labor rights, or environmental or corruption concerns. This study is limited to the data documented on the platform for the engagement dialogue and is not the direct voice of the investor or the company. After a meeting with the company, as part of the dialogue, the engagement consultant sends meeting minutes to the company to confirm that the documentation reflects what has been discussed in the dialogue. The data reflects the perceptions of the engagement consultant on both the dialogue process and target company responsiveness.

5.2. Areas for future research

When severe criticism is raised towards a company, the pressures are multifaceted and the effects and changes made within a company cannot be isolated to consequences from the engagement dialogue. To understand the actual impact on the micro-processes within the company the data analysis would need to be complemented with interviews and review of target company internal material. In addition, the investor dialogue with the engagement service consultant on the platform is not directly visible in the material. This study analyzed the dialogue from the perspective of the service provider, the engagement service firm. A future study could analyze the engagement from an owner's perspective, both the dialogue between the owner and the service provider and direct engagement between the owner and the company. The case reports came from a single service provider. A potential extension is to multiple engagement professionals in order to identify whether the engagement firms emphasize specific traits in the process.

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Appendix 1 - Case report examples

CORE CATEGORY	ENGAGEMENT CASE REPORT SAMPLE TEXT
Externalised management	"The case regarding the alleged anti-union behaviour stems from three main sources, namely the ILO, an on-going court suit against the company, as well as a fact-finding mission made by the city council. The ILO Committee of Freedom of Association (The Committee) has reported on complaints submitted by various trade unions. The said complaints concern a summary of cases which the local government is criticized for not having addressed, in particular the murder of two union representatives. A law suit has been filed against the company, the company has denied the allegations and claimed it could not influence the situation due to contractual limitations. The city council went on an independent fact-finding mission to and the delegation reports to be shocked by both disturbing employee testimonies as well as the company's lack of investigation of the matter. Further the delegation highlights the potential that the company is, either through intention or negligence, prioritising the company's interests as opposed to the lives and safety of its workers."
Refuting responsibility	"There have been several external reports stating that the forestry company is performing illegal logging activities in at least three countries. The main concern regards the logging of natural forests in areas with a highly sensitive biodiversity, including national parks. There have been negotiations between non-governmental organisation and the company to come up with a sustainability plan. Regretfully there was no agreement and the company is reported to continue its aggressive logging activities. The company has responded to inquiries from the engagement consultant via press releases where the allegations are denied."
Systemic non-compliance	"The company stands accused of systematically dumping billions of gallons of highly toxic waste into pits dug into the earth. The seriousness of the environmental situation has been confirmed by scientific reports and following a fact-finding trip to the area." "In light of the alleged wrongdoing covering three countries and the fact that the company has a history of having been accused of corruption, there is a risk that the misconduct is not limited to a couple of individuals. Rather there could be gaps in the company's proactive risk management and safeguards against bribery in particular may be insufficient. Emerging economies are the fastest growing markets for the company and it will hence be doing more and more business in countries that have an elevated corruption risk. This lead [the investment consultant] to conclude that the company should accordingly enhance its policies, proactive risk assessment and control over business partners in those locations, and the company global anti-corruption preparedness will therefore be subject to further analysis."
Building competence, policies and third-party verification	"The company described in a letter to [the engagement consultant] that they are undertaking several measures in order to investigate and analyse the reported incidents, as well as to improve management systems. In the Annual Report, the Board stated that it accepts ultimate responsibility for the actions of management and the culture at the company and is committed to making significant changes in order to avoid similar incidents to recur. External auditors were appointed to review internal controls and corporate governance practices. A report with findings and recommendations was received by the company. As a result, the board endorsed an action plan in relation to the recommendations in the report. The measures include changes in top management as well as the establishment of two new committees in order to immediately strengthen specific parts of the company's corporate governance structure." "The company has stated its commitment to complete an environmental assessment, meanwhile receiving criticism for failing to uphold its commitments. It is therefore of utmost importance that the activities are subject to independent third-party verification. A proactive and precautionary approach entails the adoption of the necessary policies and guidelines. Education and compliance programs should be targeted in the area of forestry conservation. Furthermore, internal monitoring system must be in place."

CORE CATEGORY	ENGAGEMENT CASE REPORT SAMPLE TEXT
Third-party verification	"The company has taken a responsible course of action by adopting and implementing a global policy for human rights. In its latest sustainability report, the company informs about significant progress in promoting awareness and compliance through training, assessment tools and alliances. The company is a signatory to the Voluntary Principles on Security and Human Rights and promotes the Universal Declaration on Human Rights, which is included in the company's training program. The program applies to all employees, managers, security employees and contractors in international operations, requiring them to report on alleged violations of the policy to managers, the Compliance Committee or the Compliance hot-line. The robustness of the policy and program has been confirmed by external stakeholders involved in a shareholder process with the company. In the operations in Country X the company collaborates with a local think-tank to measure possible risk and impacts of its operation. The foundation also monitors the assessment process of new operation areas." "The company is recommended to include a section on how the work with corruption prevention is progressing in the annual governance report. The implementation of these measures should be verified by an organisation with relevant experience."
Transparency and External Collaboration	"The company has already taken steps to address the problem: it has set up structures, procedures and regulations, it also has a Code of Ethics and an Ethics Committee to communicate and implement the company's core values through the organisation. It joined the Global Compact in 2003. Meanwhile [the engagement consultant] does not believe that the company has addressed the issue of corruption adequately and would like to see the following: Firstly, the company should report on how the company uses agents and intermediaries and how the company is working in order to minimise risks related to corrupt business practices. By way of example the company could join 'TRACE', a non-profit membership association specialising in anti-bribery due diligence reviews and compliance training for commercial intermediaries. Secondly, the company should report more transparently on issues related to corruption, e.g. on-going investigations, company training, accountability mechanisms and financial reporting. The results should be verifiable. Finally, [the engagement consultant] encourages the company to participate in 'integrity activities' in its work against corruption. " "The company has adopted a responsible course of action in promoting and implementing increased safety measures at its plants. And while the company has policies guaranteeing the freedom of association, the company - in dialogue with investors and important NGOs in the area of human rights - is reviewing its human rights policy to better ensure their protection and to prevent violations of said principles. In order to verify the results of its work the company assigned the industry association to perform an audit of the conditions at its Colombian bottlers, with a particular focus on freedom of association and security. The association has ensured that workers testimonies confirmed their right to exercise freedom of association. [The engagement consultant] further believes that these measures together with investments in its organisation to better address labor relations evidence the company's commitment to human rights. The company has taken several important steps in increasing its transparency and openness to stakeholders."

Sell-Side Analysts' Valuation Model Choice: A Case Study

Jari Huikku and Aino-Maria Pöyhiä

Abstract

This study investigates the valuation model choices of sell-side analysts, an area largely overlooked by the prior literature. Specifically, we focus on the drivers that influence the choice of the primary valuation model that analysts use to derive a target price. The research was conducted as a multiple case study by drawing on interviews with sell-side analysts and their valuation reports of a major energy sector firm. We find that valuation target–specific aspects such as lack of peer comparability, lack of history, and extreme uncertainty about forecasting cash flows can play a dominant role in valuation model choices. Our research contributes to the equity valuation literature by providing a more nuanced picture of the drivers influencing the model choices of sell-side analysts, and specifically, it brings forth the need to pay sufficient attention to valuation target–specific factors as the choice drivers.

Keywords:

Sell-side Analyst, Valuation Model, Valuation Method, Target Price, Model Choice

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1. Introduction

Sell-side analysts[1] (hereinafter called analysts) play a central role in equity capital markets by communicating their analyses and recommendations to investors via research reports. Their research reports typically include three[2] major (interrelated) parts: earnings forecast, target price, and stock recommendation (e.g., Bradshaw et al., 2004; 2013; Caylor et al., 2017). We can thus say that earnings forecasts, if simplified, are converted to a target price by using a valuation model. Further, the stock recommendation (buy/hold/sell) is closely coupled with the target price being under (i.e., sell) or over (i.e., buy) the current trading price (Bradshaw, 2002).[3] Hence, providing target price forecasts is of the utmost importance to analysts' work.[4] The target price is commonly directly derived from a primary valuation model (e.g., Abhayawansa et al., 2015).[5]

Throughout the years, efforts have been made to improve the knowledge of equity markets by scrutinizing sell-side analysts' work by covering, e.g., their use of valuation models and the information utilized in valuations (see, e.g., Ramnath et al., 2008; Brown et al., 2015). However, the analysts' valuation task is still considered a kind of "black box" that needs further unpacking (Bradshaw, 2009; Caylor, 2017; Lo, 2012). Specifically, few studies have addressed analysts' choices of primary valuation models on which the target prices are based. Notable exceptions are Demirakos et al. (2004; 2010), and Flöstrand (2006), who have covered these aspects in their content analysis of analysts' reports, and Imam et al. (2008), who combined content analysis and interviews of sell-side analysts. By utilizing qualitative data, Imam et al. (2008) explicitly addressed the question of why analysts have chosen a particular primary valuation model. The other studies drawing merely on statistical analysis were rather able to find associations between the valuation models and potential reasons for choosing them, but they did not explicitly address the reasons *per se* for these associations. All these studies suggest that a valuation model choice is related to the industry. In addition, Imam et al. (2008) provided empirical evidence that client preferences, technical limitations of the models, changes in the popularity of models, the market cycle, and familiarity with the models all affect the choice.

In addressing the reasons influencing the analysts' valuation model choices, prior literature has investigated analysts that simultaneously value many different companies, and it has provided only a rather aggregated, general picture of their reasons. Hence, we still know little about why analysts select a valuation model for a particular company and, consequently, whether potential valuation target–specific aspects (rather than industry-specific, for example) influence their valuation model choices. Accordingly, in our study, we investigate which aspects affect sell-side analysts' valuation model choices, and we use a particular company as

[1] Sell-side analysts cover publicly traded companies, constructing reports by analysing the past and future performance of these companies to provide stock recommendations. Sell-side analysts work for brokerage companies, and their reports are consumed by investors' trading of publicly listed securities, whereas buy-side analysts are often employed by institutional investors (Barker et al., 2012; Fogarty and Rogers, 2005). Ramnath et al. (2008) offer a holistic presentation of the sell-side analysts' operating environment, including aspects that affect the work of analysts (e.g., regulatory/institutional, incentive, customer and organisation, expertise, and information availability).

[2] "Description of a firm's prospects" has been presented as the fourth output (e.g., Ramnath et al., 2008), but it can also be considered a more qualitative part of earnings forecasts.

[3] Nevertheless, buy recommendations by sell-side analysts have been reported to be much fewer than sell and hold recommendations (e.g., Hand et al., 2017).

[4] It is also suggested, however, that a great deal of sell-side analysts' work lies in the rich contextual information they provide to buy-side analysts (e.g., Imam and Spence, 2016).

[5] Target price can also be derived from a combination of several models, e.g., P/E 50% and DCF 50% (e.g., Hand et al., 2017; Prusak, 2017).

the valuation target for all the analysts investigated. In our case, the valuation target is Neste Oyj, a publicly listed energy sector firm that operates in the traditional fossil fuels sector, and in renewable fuels. Our data gathering is primarily based on interviews with sell-side analysts that cover Neste, but in addition, reviews of their recent research reports have been utilized as auxiliary material. By adopting a qualitative, multiple-case study approach about the valuation model choices of various analysts focusing on a particular company, we expect that valuation target–specific aspects of their choices could potentially be revealed. This study is also motivated by the calls of prior literature (e.g., Bradshaw, 2009; Caylor, 2017), which urged further research to unpack the analysts' valuation work.

Our research contributes in many ways to the equity valuation literature by shedding light on the primary valuation model choice drivers of sell-side analysts. We provide a more nuanced discussion of these drivers and their importance. First, we extend the literature by showing that valuation target–specific aspects such as lack of comparability to peers, lack of history, and uncertainty about forecasting cash flows may play a much greater role in the final choice than we have anticipated. Nevertheless, it seems that the valuation model choice is often a matter of the analyst's subjective preference. Second, we contribute by corroborating the findings suggested by the prior literature, and presenting empirical data, adding nuance to them. Specifically, client preferences and industry-specific aspects appear to have the potential to influence the model choice. Third, we add to the literature by finding some signs that theoretically suggested factors such as the availability of appropriate information and cost-benefit thinking have an influence on the model choice. The cost-benefit thinking aspect became particularly apparent in cases where the analyst had inherited the valuation model and had continued valuing companies with it.

The remainder of this paper is organized as follows. Section 2 reviews the relevant literature for the study, and the methodology of the study including case company description is then introduced in Section 3. The findings of this research are presented in Section 4 and, finally, discussion and conclusions are offered in Section 5.

2. Literature Review

First, we review the prior empirical findings on valuation models that have been utilized by sell-side analysts. Then, we present the prior studies on the aspects that influenced their valuation model choices.

2.1. Analysts' Use of Valuation Models

There are different ways to group models used for valuation. Asquith et al. (2005) delineate them into three major categories: DCF models, earnings multiples (e.g., price-to-earnings and EBITDA multiples), and asset multiples (e.g., price-to-book and EVA). Valuation models can also be simplified and housed under only two categories: cash flow (e.g., DCF, DY, DDM) and accrual-based (e.g., multiples) models. Further, it is also possible to categorise models based on their sophistication. Sophisticated models, such as DCF, EVA, DDM, and CFROI, aim to value a firm without any direct comparison to its peers, whereas unsophisticated models (relative valuation models) will use single periods to calculate company value and offer a direct peer group comparison (Gleason et al., 2013; Imam et al., 2008). See Appendix 1 for categorisation and definitions of the valuation models (hereinafter the abbreviations of the models will be used). In our literature section, we focus on reviewing DCF and P/E because they have been reported as the two dominant valuation models in the prior literature, and the discussion of valuation

model choices in prior literature is also predominantly related to the choice between these two models. Target prices can also be derived from a combination of several valuation models by averaging their results (e.g., DCF 50% and P/E 50%; see Hand et al., 2017; Prusak, 2017).

The normative literature advocates the use of "theoretically correct", multi-period discounted cash flow models (e.g., Copeland et al., 2000; Penman, 2001). The most obvious challenges of the more sophisticated net present value–based valuation models are related to the uncertainty of future outlooks and thus to forecasting accuracy (Imam et al., 2008). On the other hand, relative valuation models can be seen as problematic from the perspective that a firm's valuation is always seen in terms of its peers, which is also the case for every other company in the peer group (De Franco et al., 2015). The choice of measure used in any multiple valuation influences the result, and it is not always a simple task to find eligible peers of a company (Penman, 2001). Yin et al. (2018) found that analysts use three different types of benchmarks to determine P/E multiples: comparable firms, a firm's historical market, and a market index. Regardless of the valuation model choice, in addition to valuing the firm as a single entity, valuation can be done by summing the valuations of a firm's segments (the sum-of-the-parts approach) (Imam et al., 2008).

The empirical research has witnessed the continuing use of less sophisticated valuation models, e.g., multiples (e.g., Demirakos et al., 2004; Imam et al., 2008; Brown et al., 2015, Prusak, 2017). In Demirakos et al.'s (2004) study of international investment bank analyst reports, the primary model chosen was either a P/E or DCF model. Their findings of remarkable DCF model usage contrasted with the prior research and suggested a change in these analysts' valuation behaviors. Imam et al.'s (2008) research supports Demirakos et al.'s (2004) findings on increasingly popular DCF model utilization (see also Glaum and Friedrich, 2006). Imam et al. (2008) report that cash flow–based models as the primaries are even more prevalent than accrual-based ones (e.g., P/E), but these models are often combined to support decisions on stock recommendations and to derive a target price for the stock. Interestingly, however, when a multiple was used as the primary valuation model, DCF tended to not be considered (Imam et al., 2008). They assert that the use of valuation model combinations appears to be driven by the opportunity to gain different views through both multi-period and short-term forecasts. Further, they suggest that analysts often run a secondary model to derive the target price when there seem to be largely varying results between models and that the dominance of P/E as a valuation multiple appears to be challenged by EV/EBITDA. Recently, Brown et al. (2015) reported continued wide use of the P/E and cash flow models. In addition, they found that P/E growth models were used to support analysts' buy or sell recommendations, whereas the use of dividend discount models, models based on earnings momentum or surprises, EVA models, residual income models, and models based on stock prices and volume patterns are rarely used. Prusak (2017) found that, in Poland, about nine out of ten sell-side analysts used a combination of the DCF and multiples models (mainly P/E) to derive their target prices. To summarise, the findings of the valuation model research show the continuous importance of P/E and the increasing popularity of the DCF models.

2.2. Valuation Model Choices

Although there are abundant studies about the analysts' use of different valuation models, there has been surprisingly scarce research about the factors associated with the choice of the models, specifically about why analysts choose certain valuation models to derive the target price for a particular stock. Demirakos et al. (2004; 2010), Flöstrand (2006), and Sayed (2017) have investigated these factors using content analysis of the analysts' reports, but they do not explicitly address the reasons for the associations *per se*. Nevertheless, Imam et al. (2008) used both an extensive content analysis of the analysts' reports and interviews to study what valuation models analysts use and how. Most interestingly for us, drawing predominantly on the interview data, they also addressed why analysts chose a particular primary model. Their interview data consist of 35 interviews with sell-side analysts in ten investment banks covering various companies in six industries. They discuss the drivers of valuation model choices in general and by industry, but they do not address target-specific aspects behind the choices (see Table 1 for a summary of the above-mentioned studies).

YEAR	AUTHOR	PURPOSE AND FINDINGS	MODEL
2004	Demirakos et al.	-Studied what valuation models analysts use -Valuation practices vary systematically across the industrial sectors. Multiples (P/E) are more popular as dominant valuation models in stable industries.	Content analysis of 104 equity analysts' reports
2006	Flöstrand	-Studied why analysts use unsophisticated valuation models -Industry and brokerage firms are associated with the choice of the valuation model, whereas analysts' knowledge problem, a cost-benefit rationale, uncertainty of future outcomes, and relative price levels were not explaining analysts' choices.	Content analysis of 260 equity analysts' reports
2008	Imam et al.	-Studied what valuation models analysts use, and why and how -Perceived limitations of the technical applicability of DCF (i.e., forecasting uncertain future outcomes) cause analysts to rely on multiples. Client preferences appear to cause analysts to choose DCF. Industrial factors are associated with the use of DCF.	Interviews of 42 analysts and content analysis of 98 equity analysts' reports
2010	Demirakos et al.	-The main focus was to compare target price accuracy of P/E and DCF models, but also addressed factors related to the choice of these models. -It was found that analysts choose DCF more frequently than P/E to value loss-making firms, small firms, high-risk firms, firms with extreme negative and positive sales growth, firms with a limited number of peers, and firms in the bear market, whereas P/E usage appears to be associated more with bull markets.	Content analysis of 490 equity analysts' reports
2017	Sayed	-Studied whether analysts prefer P/E or DCF models in emerging markets with lower corporate governance standards and accuracy of target price estimates -Lower regulatory and reporting standards do not have a significant bearing on analysts' choice of valuation model.	Content analysis of 502 equity analysts' reports

Table 1. Prior empirical studies on the analysts' valuation model choice

In the following, we first review the prior literature regarding the empirically supported factors influencing the valuation model choice, then we briefly cover empirically tested but not supported factors, and, finally, we present the theoretical suggestions from the literature.

Imam et al. (2008) noticed that analysts, when asked about the rationale for their model choice, generally focused first on technical motivations. Hence, analysts discussed their own preferences about the different fundamental properties of valuation models, i.e., whether they employ cash flow or accruals, use short-term or long-term forecast periods, or are simple or difficult to use. With regard to other reasons for the choice, Imam et al. (2008) found evidence that client-related aspects may be influential. Hence, the ease of communicating P/E and other multiples in comparison to DCF to clients, for example, appears to play a role in model selection. In addition, an analyst's model choice does not necessarily represent his or her own vision or opinion; for example, a cash flow–based model can be decided upon to acknowledge a client's focus on cash flow models (Imam et al., 2008).

The industry of the firm under evaluation has been reported to affect the model choice. In their survey of equity valuation practices of CFA members, Pinto et al. (2015) report that 68% of analysts confirmed that their valuation model choices depend on the industry of the firm being valued. Demirakos et al. (2004) found that P/E multiples are more popular as a dominant valuation model for valuating more stable industries, such as the beverages sector over the pharmaceuticals and electronics sectors. According to Flöstrand (2006), more sophisticated models (e.g., DCF) were used more frequently for telecommunication than for health care valuation. Imam et al. (2008) found that DCF is more commonly used to value higher growth technology and media stocks. They also report that DCF and P/E are the only two models that are frequently used to analyze all sectors.

Furthermore, Imam et al. (2008) provide evidence that valuation model choices can be related to trends. Hence, if a model is perceived as increasingly used and accepted by the analyst community, then analysts are also more likely to use it. Additionally, the model choice may be influenced by market cycles and sentiment (Imam et al., 2008). Hence, when the firm is on top of the market cycle, analysts tend to rely on valuation models that focus on long-term forecasts and outlooks (e.g., PEG, Price/earnings-to-growth), whereas at the bottom of the cycle, the dividend yield (the ability to monetize the business) raises its importance as investors become ever more cautious. Flöstrand (2006) found that valuation model choices were associated with brokerage firms, but he did not address why firms prefer to use certain models. Moreover, Imam et al. (2008) suggest that difficulties forecasting uncertain future outcomes cause analysts to prefer multiples, whereas Flöstrand (2006), in his statistical analysis, did not find support to maintain that uncertainties of future outcomes were associated with the choice of valuation models.

Demirakos et al. (2010) found that analysts choose the DCF more frequently for firms in the bear market and the P/E for those in bull markets. They also studied whether valuation model choices between the P/E and DCF models vary across firms with different characteristics. They show that analysts choose the DCF more frequently than the P/E as a primary valuation model for loss-making firms, small firms, high-risk firms, firms with extremely negative and positive sales growth, and firms with a limited number of peers. Nevertheless, in their content analysis of analysts' reports, they do not address the reasons behind these associations.

In addition to the empirically supported aspects presented above, other factors that potentially influence the model choice have been studied, but no significant associations have been found. Sayed (2017) studied whether lower regulatory and reporting standards in Asian

countries affect the choice of valuation model (P/E vs. DCF) to derive the target price, but he did not find significant associations between them. The cost-benefit ratio has also been used as an argument to explain analyst behavior (see Flöstrand, 2006); it recognizes the difference needed in time and effort to build valuation models for relative and present value-based techniques. Especially regarding the use of theoretically inferior multiples, a prediction suggests that their result is sufficient when compared to the consumption of resources needed to perform the valuation (Bhojraj and Lee, 2002). Further, the relative price argument has been suggested to be related to the model choice. This argument springs from the idea that analysts can opportunistically choose a valuation model according to their preference for high or low valuations, first by deciding on a target price and then by choosing a model to support it. Moreover, Pike et al. (1993) proposed that analysts cannot embrace (and choose) new, more sophisticated models if they lack knowledge about them. Flöstrand (2006) investigated the role of cost-benefit aspects, relative price arguments, and analysts' lack of knowledge for valuation model choices, but he did not find associations. In addition, the availability of information needed to construct a valuation model (Palepu et al., 2000) and incentive systems (Imam et al., 2008; Schipper, 1991) have been suggested (without empirical evidence or testing) to influence the valuation model choice.

In sum, a lot of factors that may affect the analysts' primary valuation model choices have been suggested. These factors can be divided into three categories: (1) empirically supported, (2) empirically tested but not supported, and (3) theoretical suggestions. With regard to empirically supported factors, it appears that industry, client preferences, technical properties of the models, market cycle/sentiment, and general trends in using different models may potentially play major roles in this choice (Imam et al., 2008). Some valuation target–specific evidence has also been presented by Demirakos et al. (2010) to maintain that the DCF is more popular than the P/E in valuing small firms, high-risk firms, firms with extremely negative and positive sales growth, and firms with a limited number of peers. They did not, however, address in more detail the reasons behind these associations. In addition, efforts have been made to test the influence of the cost-benefit ratio, relative price argument, lack of knowledge about the models, and low regulatory/reporting standards on the valuation model choice, but no significant associations have been found. It has also theoretically been suggested that data availability and incentive systems may influence the valuation model choice.

Despite the studies outlined above, our understanding of the drivers influencing analysts' valuation model choices is still limited. With the notable exception of Imam et al. (2008), prior studies have merely used data from analysts' reports to address this issue, and they are consequently most likely not in a favorable position to provide in-depth insights about analysts' reasoning, as can be anticipated through their interviews. Typically, analysts' reports do not include comprehensive—if any—elaboration on the drivers that have influenced the model choice. In addition to making content analysis, Imam et al. (2008) have conducted interviews to investigate why sell-side analysts use the models they use. Nevertheless, they interviewed analysts from 10 investment banks covering various companies in six industries. Although they greatly contribute to the literature by presenting empirical data about the drivers, they do not address potential valuation target–specific aspects behind analysts' choices. As also indicated by Demirakos et al. (2010), it is plausible to think that valuation model choices can also be related to the characteristics of the company in question, not merely to industry-specific characteristics, for example. Accordingly, we will investigate the research question, "*Which aspects affect sell-side analysts' valuation model choices*?", and in doing this address the aspects affecting

the choices in one particular company (within an industry) to shed light on the research gap related to valuation target–specific issues. We focus specifically on the primary valuation models, i.e., those directly linked to a firm's target price.

3. Methodology

This study seeks to extend our knowledge of the analysts' decision processes. In particular, the primary focus of this study is to contribute to the research on their valuation model choices by providing a more nuanced picture of the drivers influencing this choice. In contrast to prior studies, we focused on the valuation of one particular company, Neste. Thus, we are able to eliminate aspects related to different industries and organizations. With regard to generalization, our study does not aim to offer transferable findings to other contexts, i.e., we do not claim that findings and interpretations here apply directly to other companies. In line with Imam et al. (2008), our data collection comes from semi-structured interviews with analysts and reviews of their valuation reports. Nevertheless, in our paper, the interview data play a primary role, and reviewing the valuation reports about the models used by the analysts has helped us clarify what valuation models they do use, and this has facilitated us to better prepare for the interviews and pose more intriguing questions during them. In practice, these reports did not directly include material about the drivers influencing a particular analyst's choice of valuation model, which is the core interest of our paper. In addition to analysts' reports of Neste, we reviewed their reports of other companies within and beyond their industrial sector to clarify whether they used the same valuation model or a different one.

By choosing a qualitative approach, we can expect to see the underlying factors that affect the decision-making of analysts better than if only a content analysis of their reports had been addressed, as in Demirakos et al. (2004; 2010), Flöstrand (2006), and Sayed (2017). In addition, scholars suggest that semi-structured interviews can provide richer, more complex insights into analysts' views than questionnaires (Holland, 1998) or an analysis of the analysts' reports (Imam and Spence, 2016). The chosen methodology, which focuses on the semi-structured interview data, helps structure the interviews and gears them towards relevant topics, yet leaves room for individual interviewees to elaborate on topics on which they have more to say; they may possibly even bring up components that are not included in the interview protocol (Vaivio, 2008).

The data gathered consisted of interviews with analysts who were covering Neste and their latest valuation reports. Neste was a suitable object of valuation for this study; it is a publicly listed, major company that is followed by multiple analysts. Neste recognized 18 analysts in the investor relations section of its website, where it lists the leading analysts' names, their contact information, and the names of brokerage firms, including both international and Nordic institutions. All 18 analysts were first contacted via a standardized email and then by phone. The purpose of the study was explained by briefly presenting its focus points and objectives. Ten different brokerage firms agreed to an interview; two were not currently covering Neste (retirement and maternity leave), one declined due to the firm's policy, and five were not interested in participating in this study. The interviewees were all lead analysts covering Neste (see Appendix 2). Their time range for covering Neste varied considerably, from less than one year to several years. Most of the lead analysts interviewed had lengthy backgrounds as analysts in brokerage firms. The group included both generalists (eight analysts) and oil and gas sector specialists (two analysts). The firms were alphabetically referenced using the letters A to J, as the analysts reference their individual brokerage firms.

The interviews were conducted both face-to-face and by phone for the interviewees' convenience. All interviews were recorded and transcribed. To encourage analysts to discuss the topics as openly as possible, they were told that they and their brokerage companies would remain anonymous in research reports. The interviews were conducted between January 2017 and May 2018 and lasted for approximately 1 hour each. One interviewee (Analyst G) provided written answers to the themed protocol in advance. Thus, this conversation relied on pre-submitted answers and was developed from there. At one brokerage firm, two analysts were interviewed simultaneously; one had more experience covering Neste as the lead analyst (B1), whereas the other (B2) had covered Neste for a shorter period of time. The analysts also complemented each other's answers.

The interviewees were provided in advance with an indicative interview protocol that presented the main themes to be discussed. They were asked to send their most recent analyst reports, which were analyzed by the researchers before the interviews took place. This procedure enabled more in-depth discussions with the analysts and helped triangulate the data between different data sources about the use of valuation models (Creswell, 2014). Further, although the adopted interview model restricted the statistical power and generalization of our results, it enhanced the validity and reliability of our data by facilitating the clarification of the questions, proposing further questions, and returning to earlier questions and answers (McKinnon, 1988; Vaivio, 2008).

The interview protocol included the following themes: 1) interviewee background, 2) information used in valuations, 3) ESG information, 4) current valuation model use, 5) why the primary models were chosen, and 6) other valuation-related aspects (see Appendix 3).[6] Three sources were utilized to compile the protocol. First, knowledge was obtained from prior research in the subject areas. Second, the themes were discussed with Neste's representatives, who were in contact with the analysts. Third, the interviewees' latest reports on Neste were analyzed, bringing greater depth to the protocol and also to the interviews. The interview protocol ensured a consistent approach across all interviews, therefore enhancing the comparability of the responses.

The data analysis focused on interview transcriptions, but it also considered the analysts' research reports of Neste (and other companies they followed) as complementary material to identify the valuation models used. After each interview and without delay, the material was transcribed and preliminarily analyzed to obtain useful feedback for the coming interviews and analysis. Thereafter, the content of the interview transcripts was analyzed qualitatively. The data were divided according to themes and sub-themes, and the most relevant were chosen for further analysis in this research (Creswell, 2014). In the first phase, the information was divided into six main themes (see above) and, subsequently, into sub-themes. Such categorization enables a systematic and consistent approach to analyzing data (Saunders et al., 2007, p. 479). In our data analysis, we focused primarily on two of the six themes: current valuation model use and, specifically, reasons influencing the valuation model choice. During the interview process, the material was continuously read and re-read; numerous versions of spreadsheet tables on the findings were compiled and updated; within- and cross-case patterns between the brokerage firms were analyzed, and the findings were contrasted to prior theory. Finally, after the whole interview process had been conducted, the coding and analysis of data continued—mainly based on the thematic approach—and the first versions of the research paper were written (Eisenhardt, 1989).

[7] Environmental, social, and governance (ESG) information–related aspects have not been included in this paper.

Our thematic analysis approach was a rather theoretical one informed by the prior literature about the reasons behind the valuation model choice, i.e., we coded the data primarily based on pre-existing codes related to the specific questions (Boyatzis, 1998; Braun and Clarke, 2006). In our case, we feel that this engagement enhanced our data gathering and analysis by sensitizing us to more subtle features of the data (Tuckett, 2005). Nevertheless, we were open to emergent aspects not directly fitting this coding frame, and we let the codebook develop and change based on the information we learned during the data analysis (Creswell, 2014).[7] We continuously gathered to share our views and discuss our independently-derived interpretations of the data. Hence, the findings and their interpretations presented here were reached through our collective interpretation, which also included numerous iterations and reinterpretations (Creswell, 2014).

In summary, our research is a multiple case study analyzing the valuation practices of various analysts (Yin, 2003), and it aims at theory refinement (Keating, 1995). This study has exploratory and explanatory case study characteristics (Scapens, 1990). On the one hand, it explores reasons for the valuation model choices, and on the other hand, it also makes an effort to explain the antecedents behind these.

The target company

Neste is a publicly listed, Finnish-based energy sector firm that operates in the traditional fossil fuels and renewable fuels sectors. Its net sales are about 13 billion euros, the operating profit 1.1 billion euros, and the number of employees about 5000 (as of 2017). It is quoted on the NASDAQ OMX Helsinki Stock Exchange. The company pays a lot of attention to sustainability issues, and it has continuously been included on the Corporate Knights' Global 100 list of the world's most sustainable corporations; longer than any other energy company in the world. It has three main divisions: oil products (net sales 8.5 billion euros and operating profit 0.5 billion euros as of 2017), oil retail (3.9 and 0.1), and renewable products (3.2 and 0.6). The oil products division refines oil in its two refineries and sells products to oil companies and to other companies marketing oil, fuels, lubricants, and other special products. It has a leading position in the Baltic Sea wholesale markets. The oil retail division has a network of over 1000 service stations in the Baltic Sea region and is the key marketing channel for Neste's products.

The renewable Products division offers renewable diesel, renewable jet fuels, renewable solvents, and raw materials for bioplastics for oil companies, retailers, and wholesale customers such as professional transportation companies and municipalities, airlines, and airports. Neste is the world's largest producer of renewable diesel. Its share of the world's total renewable diesel production capacity is approximately 60%, and the main market areas are Europe and North America. Neste's renewable diesel made from 100% renewable raw materials can result in 50–90% lower greenhouse gas emissions when compared with conventional fossil diesel. Renewable diesel's raw material includes waste and residues from food processing industries (e.g., animal fat, fish fat, and vegetable oils) and vegetable oils (palm oil, rapeseed oil, and soybean oil).

The renewables business is Neste's newest venture. The first two renewable diesel plants

[8] Thematically constructed data matrices in Excel played a major role in aiding the data analysis. The main principle was to display observations per theme/question under scrutiny in all the firms to detect and quantify the prevalence of observations and the incidence of patterns (Eisenhardt, 1989). The matrices were constructed to present all the firms studied as columns and the themes/questions as rows. The use of data matrices enhanced completeness in assessing the presence/absence of constructs and relations in the firms.

were commissioned in Porvoo (Finland) in 2007 and 2009. Soon after that, in 2010, Neste opened the world's largest biodiesel plant in Singapore, and the fourth plant was brought on stream in Rotterdam in 2011. The growth of the business has been rapid and profitable during recent years, but it still does not have a long track record, and to some extent, it is unestablished, making forecasting and valuation challenging for analysts. Specifically, new biofuel legislation and taxation on imported goods in the EU and the USA cause lots of uncertainties for the business.

4. Findings

This section presents the findings of the research. In Section 4.1., we will first briefly review the valuation models used by the analysts and then present the factors affecting primary valuation model choices. Next, in Section 4.2., we will provide a synthesis of the empirical findings. To elaborate on the potential company-specificity of the valuation model choice, we also briefly address the primary valuation models used by the analysts for other companies within and beyond Neste's industry.

All analysts except B and C exercised valuation as a sole analyst. For brokerage firm B, the ideology involved more than one analyst so as to have a second opinion. Analyst B2 had recently become the lead analyst. Analyst B1 had built the model and was still participating in the process. Hence, Analyst B2 inherited the model from Analyst B1. Analysts E, G, and J also inherited the models. It appears that working with valuation models is an iterative process wherein analysts improve their models over time and apply developments at the covered firm.

Analyst C was the lead, taking ownership of the company analysis (stock recommendation and target price). Supporting tasks performed by other analysts included updating the model actuals, keeping track of databases, helping with comments, and doing client requests.

4.1. The Primary Valuation Models and Factors Affecting Their Use

The analysts used seven different methods to derive the target price. See Table 2, which summarises the models used in the valuation. Five analysts used specific earnings-based enterprise value multiples (EV/EBITDA: D, G, and H or EV/EBIT: E and F) for Neste's three different businesses and continued by conducting a sum-of-the-parts calculation. In addition, one analyst (C) used a similar approach, but they used EV/EBITDA multiples only to value renewables and retail segments, whereas for oil products, it was replaced by the DCF. Interestingly, four analysts did not explicitly use the sum-of-the-parts approach, even though Neste consists of very different businesses. Of these, one used the P/E (A), one used the DCF (J), and two (B and I) used a valuation basket weighting several models to derive the target price. In brokerage house B, EV/EBITDA was one of the three multiples in the valuation basket. Hence, enterprise value multiples were used, at least to some extent, by seven analysts.

In addition to the primary model leading to the target price, analysts typically used secondary models to support their valuations. Although only one of the analysts used the DCF as a single model to derive the target price, all except one (I) calculated it to support their valuation.

ANALYST	TARGET PRICE MODEL	SUM OF THE PARTS AS A CONSTRUCTION BASIS	DCF CALCULATED IN VALUATION	OTHER SECONDARY MODELS USED IN VALUATION
A	P/E	No	Yes	Peer group, EV/EBITDA
B1 & B2	Valuation basket of EV/EBITDA, P/E, and P/B	No	Yes	Peer group
C	EV/EBITDA and DCF	Yes	Yes	No
D	EV/EBITDA	Yes	Yes	PE, Peer group
E	EV/EBIT	Yes	Yes	Peer group
F	EV/EBIT	Yes	Yes	P/E, EV/EBITDA, Peer group
G	EV/EBITDA	Yes	Yes	P/E, Dividend, cash flow yields
H	EV/EBITDA	Yes	Yes	Peer group, EV/EBIT
I	Valuation basket of EV/Capital Employed and ROCE/WACC	No	No	P/E, EV/EBIT
J	DCF	No	Yes	Peer group, EV/EBITDA, EV/EBIT

Table 2. Primary and secondary valuation models used by the analysts

Factors influencing the primary valuation model choice are presented in Table 3. In this table, "1." stands for the dominant factors and "X" for other relevant factors identified by the researchers through the analysis of the interview answers. The table also summarises analysts' models of deriving a target price for Neste and shows whether they use the same or different models for other companies within and beyond Neste's industrial sector. The analysts covering Neste Oyj brought up several reasons for why they chose a certain model. The most common dominant reasons were target company-specific (4 brokerage firms), client-specific (3), and industry-specific (2). Hence, in the following section, we will review the reasons categorized into these subgroups and then discuss also other reasons.

FACTOR / ANALYST	A	B	C	D	E	F	G	H	I	J
Company-specific reasons	**1.**	**1.**	**1.**	**1.**	x	x	x	x	x	
Client preference (Communication)					**1.**	**1.**	**1.**			x
Industry-specific reasons	x	x	x	x	x	x	x	**1.**	**1.**	
Applicability of valuation model across sectors										**1.**
Market cycle	x		x	x			x			
Inheriting the model from a predecessor		x			x		x			x
Cost-benefit ratio			x		x		x			x
Model familiarity (Habits)				x			x			x
Market consensus about the valuation model					x					x
Valuation model technical limitations	x	x			x					
Ability to account for balance sheet strength		x				x		x	x	
Information availability			x			x			x	
Reflection of cash flows										x
Company ideology		x								
Model to derive target price:										
Neste	*P/E*	*Basket of EV/ EBITDA P/E, PB*	*EV/ EBITDA and DCF (SOTP)*	*EV/ EBITDA (SOTP)*	*EV/ EBIT (SOTP)*	*EV/ EBIT (SOTP)*	*EV/ EBITDA (SOTP)*	*EV/ EBITDA (SOTP)*	*Basket of EV/CE, ROCE/ WACC*	*DCF*
Other firms in the energy sector	D	D	D	D	D	N/A	S	S	S	S
Firms beyond the energy sector	D	D	N/A	D	D	D	N/A	D	D	S

Dominant reason = 1.; Other identified reason = x
(D = different model from Neste; S = the same model as for Neste; N/A = not applicable)

Table 3. Factors that influence primary valuation model choices

Target company-specific factors

For company-specific reasons, analysts specifically pinpointed the newness of the renewables division, with very limited historical data, limited peer group comparison potential, and unestablished profitability level. In four brokerage firms (A, B, C, and D), company-specific reasons could be considered dominant when they selected their valuation models. The dominance of company-specific reasons was supported by the fact that the analysts used different models for other companies within and beyond Neste's industry.

Surprisingly, only Analyst A relied solely on the P/E to derive the target price. This is not his standard valuation model for the energy industry, however, nor for the companies beyond this industry. He uses different approaches, company by company. Analyst A declared the importance of accounting for company-specific aspects—not just universality across sectors—when choosing a valuation model. Specifically, he found that Neste's situation and the market cycle of its industry have impacted his model choice, and he asserted that some valuation models would be more applicable for some firms than for others.

> *Sometimes we look at peer group figures and sometimes at historical figures. Now it is only P/E-based. One should remember that the company was very different five years ago. The valuation model should be built according to how the company looks currently and in two years…. For example, 6–7 years ago when renewables was loss-making, the conversation was very different. How can you value the renewables division when you cannot use P/E because it does not make a profit, but if things go right, volumes rise and margins increase, then in three years, we can expect this and this result. (Analyst A)*

Hence, model limitations play a role when the firm is in a certain situation, for example, when there are losses. Analyst A continued to elaborate on the applicability of the valuation models:

> *"For some firms, you don't need anything else [besides peer analysis] if the market consistently prices the firm according to the European industry level. If you notice that, good. But in Neste's case, there really isn't a proper peer group, so a firm-specific model needs to be applied."*

Thus, it seems that the choice between firm-specific and peer-based valuation models is influenced by the lack of comparability of the firm under valuation and its peers. He emphasized that his valuation model approach is not stable, but it does change when necessary. When asked about the potential use of other alternative primary valuation models, Analyst A highlighted the influence of the industry and market:

> *I could use EV/EBITDA and a sum of the parts model, but one just needs to be chosen. And in my opinion, Neste's result is determined quite directly according to external factors. So, there does not seem to be any large investments or discontinuities in production. So I think it [the valuation] should be constructed starting from the result. In my opinion, the renewable division has achieved a certain profit level and the volatility around the result has decreased significantly. (Analyst A)*

Hence, the analyst asserted that he could have applied EV/EBITDA instead. He aims at making all valuation models results-based as soon as the company's business activities are established. In addition to Analyst A, only the analysts of brokerage firm B used the P/E as a component in their valuation basket to derive the target price.

Based on company-specific reasons, Analysts B1 and B2 use different valuation models (other than for Neste) for the other companies in the energy sector and also for those beyond it. They emphasized company-specific reasons as a dominant overall factor affecting the valuation model choices of Neste and other companies. Specifically, they pinpointed the special characteristics of Neste's renewables business: a volatile, unestablished business with no peer companies. For Neste, Analysts B1 and B2 gave weight to the EV/EBITDA, P/E, and P/B in their target price setting. Thus, their target price was based on a mix of the models, and the DCF was used additionally as a sanity check, as mentioned by Analyst B2:

> *The idea of valuation has been built through multiples. I look at what I get through them and compare it to what DCF says. When the results are in the same playing field, then okay. If not, it [the valuation] should be thought of again from the start. DCF is a reality check. (Analyst B2)*

Analyst B1 further explained how they arrived at the current company-specific approach for Neste:

> *In the case of Neste, the [valuation] approach has been chosen according to our subjective opinion, as this is the best way to get a hold of the valuation because relative valuation is not so good due to the fact that others don't have the renewables business. DCF, on the other hand, in such a volatile business, does not really fit because putting the right parameters in place plays such a big role in getting almost anything out of the valuation. And having a volatile result does not fit either. This has to do with our ideology with many other firms too…. DCF is very theoretical in our opinion. The weight is on the near future to get something concrete. For industrials, P/B is also a good ratio, so we use that to some extent. (Analyst B1)*

With a slight grin, Analyst B1 stated, *"If I would increase the target price of Neste due to DCF, it would ideologically be such a big deal that I would probably be beaten."* He continued to explain their approach and the multiple weightings in the valuation:

> *EV/EBITDA accounts for the balance sheet structure a bit better [than P/E]. At some point, there will come worse times also in this business, so it is preferable to have a strong balance sheet rather than a weak one…. Maybe EV/EBITDA gives a better picture of the cash flows than P/E does. However, we do use P/E. It tells us something also, as it is mocked for no reason. Even though we say that we use EV/EBITDA the most, it does not have a much higher weighting than P/E. If you want to divide it into percentages, it's somewhere around 25% for P/E and 30–35% for EV/EBITDA. The difference is so small…the valuation is a subjective estimate of the big picture. (Analyst B1)*

In addition to company-specific reasons, arguments that support the valuation model choice in brokerage firm B are built around the industry, the difficulty of relative valuation (comparability to peers), limitations of the DCF, ideology of the company, and how the models account for the balance sheet structure and cash flows. Overall, brokerage firm B did not distinguish between the primary and secondary models.

Analyst C (energy sector specialist) emphasized the special characteristics of Neste's renewables business that influenced his valuation model choice, and he used different models for different companies. For Neste, he used a combination of EV/EBITDA and the DCF approach in his valuation to gain the final target price for the share of Neste.

> *Yes, I moved in oil products from a long-term DCF to a much shorter-term perpetuity value, which is actually a very simple DCF, taking the average of the next 2 years' free cash flow and putting that into perpetuity. I use the EV/EBITDA multiple for renewables and retail. Yes, so that hasn't changed, the multiples basis. What changed is how I'm getting to the earnings estimate over time. So, the timeframe is just taking next year's earnings and timing that by a number. Then, a sum of the parts approach is more appropriate given the different business mix. (Analyst C)*

Hence, the analyst moved from a long-term DCF to a shorter one for oil, and he used multiples for renewables and retail, as he had always done. When asked in more detail why he chose that approach instead of the P/E, for example, the analyst argued as follows:

> *PV [Present Value] in Refining better captures the movement in share price, given that fast money often trades off the Refining margin that can be very volatile. (Analyst C)*

It appears that, in general, the industry matters in his valuation model choice, but special characteristics in companies within the energy sector play a major role in the choice. Hence, different approaches are used:

> *Well, all of our companies have different businesses within these companies that perform very differently and have different drivers. They are modeled differently and therefore they should be valued differently. That's why rather than taking a group EBITDA and just putting on a multiple, I take the different businesses and value those different businesses differently. (Analyst C)*

Similar to Analysts A and B, this analyst accounts for Neste's special characteristics related to the renewables business (an unestablished business with no peer companies) and uses a different approach:

> *I don't cover a company with enough similar attributes to Neste. The independent refiners in Europe trade differently with share price more closely correlated to refining margin. The renewables division differentiates Neste. The way I come up with my multiples is through some sort of peer analysis. But the trouble is, in renewables, there aren't any peers. So it's quite tricky to understand what multiple to put on that business. (Analyst C)*

Overall, with regard to the model choice, he stated, "*It's just what I chose to do.*" He continued to say that, if necessary, he might decide to change the approach, but "*that would require a lot of work*". The analyst found that the market cycle could serve as one basis for a potential change in the valuation approach:

> *If in renewables there was a change in regulation or more or less uncertainty and in refining, if umm…if I saw that there is a change in the cycle of margins…. At the moment we've been on the top of the cycle; it appears that we are coming down slightly, but we are still at the toppish of the cycle. The bottom of the cycle is probably…we might be going back there, but we are not there yet. So, in a few years I'd say. (Analyst C)*

Moreover, Analyst D specifically emphasized the target company-specific reasons but also mentioned his own preferences and, to a minor extent, industry-related aspects behind the

model choice (EV/EBITDA). There had not been pressure from clients to use a certain model. In fact, it appeared that clients were more interested in discussing analysts' points of view on the profitability development of the firm than on the outcome of the valuation *per se*. Analyst D justified using different models to value his other energy companies and companies beyond the energy sector as follows: "*These companies, Fortum [energy] and UPM [forest], have shares in so-called Mankala firms*[8]*, and hence, EV/EBITDA is not necessarily a good approach for them, whereas for Neste it is appropriate.*"

Client-specific reasons

Three analysts (E, F, and G) emphasized client-specific reasons for their valuation model choices. Analyst E had inherited the valuation model from the former analyst covering Neste. He had been analyzing Neste for less than a year, so he had not had time to reconsider the model. The inherited model relied on EV/EBIT (integrated with a sum-of-the-parts approach) as the primary valuation model. Specifically, Analyst E highlighted the role of client preference as a reason why he still uses the same multiples-based model: "*Clients are interested in peer groups—with what kinds of multiples they trade.*"

In addition, it appears that his model choice is related to the market's consensus of the appropriateness of the model:

> *The popularity of P/E has declined on the way. P/E figures were talked about a lot five years ago. Now their use has decreased. Depending on the firm and the sector, one can say that EV/EBIT or EV/EBITDA are the most typical parameters. Of course, the other perspective has been dividend yield or cash flow. They are the other models that have become more popular. (Analyst E)*

Also, the firm-specific difficulties of forecasting the cash flow play a role.

> *In Neste's case, it is not so simple to forecast cash flows. If the firm makes big investments, for example, that will shift the figures substantially. (Analyst E)*

He continued by defending the use of a sum-of-the-parts approach in Neste's valuation as follows:

> *As Neste's businesses are so different, the sum of the parts model has been the best valuation model. If you think about other options, DCF models could be used. If you want to do it simply, then you look at the average valuation of the sector and apply it at the firm level. With Neste, you need to take the segments separately. And in this case, that is certainly the most sensible or reasonable model. (Analyst E)*

Analyst E explained further that, even though the industry may play a role in his valuation model choice, the choice is more company-specific and particularly based on client preference:

> *If I think about the companies I follow and their target price formation, I use in practice all different models depending on the company. We have many clients that prefer DCF, for example.*

[9] The "Mankala model" is an ownership model for energy producers, which is unique to the Finnish energy markets. In this model, energy producers are jointly owned by a number of parties that bear the company's operating costs.

With regard to Analyst F, client preference is his dominant reason for choosing multiples (EV/EBIT) instead of, for example, DCF. The ease of communicating the target price particularly influences his model choice:

> *Client preference speaks for the multiples. Think if I started to explain a DCF value. We would go through a tremendous amount of assumptions. This would not be in the interest of anybody. (Analyst F)*

He has no other energy companies, whereas, for example, for forest companies, he typically uses a slightly different model than for Neste: "*For forest companies I use instead EV/EBITDA. It depends on the large variation of the depreciation of different companies.*"

In a similar vein, it seems that the dominant reason behind the current valuation model for Analyst G (energy sector specialist) was strongly related to investor (client) preferences and, thus, communication. The analyst believed that the EV/EBITDA is the model that investors are primarily interested in when they look at stock valuations. The analyst used the same valuation model for other companies within this industry, also supporting the industry argument. Closely related to industry specificity, the cyclicality of the business was an argument that supported the valuation time frame he used. Analyst G explained the cyclicality of the business:

> *I think it was pretty much the methodology that was used by the previous analyst. I think it's the one most investors look at when valuing refining stocks...what I do in the refining business is I use an average of 5 years because that gives you a good idea of the true cycle, the performance. It also includes one major turnaround, which takes place every five years. And thinking retail, renewable products business, I use a shorter timeframe because there is less cyclicality in these two businesses. (Analyst G)*

Analyst G inherited the valuation model and his current methodology from his predecessor. However, he developed the model further since the renewables business had changed significantly. He seemed to have less discretion when choosing a timeframe for calculations compared to other analysts, as the five-year timeframe used in the valuation process was extended for the whole brokerage firm. Although Analyst G had developed the valuation model, the primary model (EV/EBITDA) stayed intact. This approach may also refer to the cost-benefit aspects, which the analyst did not explicitly point out. Nevertheless, he mentioned the organizational habit and its relationship to the perceived client preference when asked about the model choice:

> *Well, it's just that when having discussions with investors, they're very much focused on where it's trading at the moment in terms of multiples, so it's just easier to have this reference point in mind. Then you have the DCF, and you can have a rough idea what kind of discount factor you can use to get that multiple. It is just what we tend to use, the multiple-based price target generally. It works quite well in discussions with investors. (Analyst G)*

In sum, clients may play a major role related to the model choice. Clients' preferences towards certain models, e.g., multiples instead of DCF, and the ease of communicating the valuation were specifically brought up by the analysts.

Industry-specific reasons

Analysts H and I considered that the primary reasons for their model choices were related to the industry. Analyst H emphasized these reasons and used the same model for all his energy companies, whereas for non-energy, other models were used. He links the use of EV/EBITDA multiples integrated with the sum-of-the-parts approach to its suitability to the capital-intensive energy industry and with the firm having very different businesses as follows:

> *We have used this EBITDA approach already seven years. I think that a sum of the parts approach is good in the energy sector because it pays attention to the cost of constructing assets and the pricing of their products. In this business, you need to construct factories that cost a huge amount of money. Neste, like Fortum, they are asset companies. (Analyst H)*

Analyst I used a valuation basket consisting of EV/Capital Employed and ROCE/WACC for all his energy sector companies including Neste, whereas for the other sectors, he applied different models. Both multiples accounted for 50%. He described the motives behind this valuation model choice as follows:

> *The key reason for this valuation approach is industry-related. In this kind of capital-intensive industry, this approach has proven to be quite reliable for many years. So this is the key reason why I am still using it. Nevertheless, I am nowadays receiving mail from my clients asking me why I am not using a sum of the parts approach, because Neste has really different businesses. I am considering changing my model to the sum of the parts. (Analyst I)*

Accordingly, for Analyst H, industry-related aspects, specifically the need to account for the capital intensity of this industry, seem to play the major role in his choice of valuation model. Nevertheless, it appears that there is clearly pressure from clients to pay more attention to the company-specific aspects in his valuation approach.

Other reasons

One analyst based his model choice predominantly on its applicability across sectors. Analyst J utilized the DCF model in all the brokerage firms he worked for during his 15-year career. It appears that this model choice was influenced by his personal preferences and his familiarity with the valuation model. However, when asked about why he chose the model, he asserted that the choice was primarily based on the DCF's applicability across the sectors: *"All firms can be valued by the discounted cash flow model."* In addition to its universality, the analyst perceived the DCF to be an industry standard and, therefore, generally accepted. A general acceptance of this model was also linked to the communication perspective for analysts' valuations.

> *DCF has become a bit like VHS, which became a standard for videotapes. In good and bad. But it works, and everyone understands that it is not the truth, but an opinion. And everyone knows what it consists of. To launch a competing valuation model, I have not found it plausible...*
> (Analyst J)

Analyst A (using a P/E-based target price setting) had a very different opinion about the appropriateness of the DCF as a primary model:

> *It would not go wrong if the target price was tied to the DCF.... But currently, when the firm is in a moderate investment period and the balance sheet is strong, I don't see as much relevance for DCF as I saw four to five years ago. (Analyst A)*

Hence, in contrast to J, Analyst A declared the importance of accounting for company-specific aspects—not just universality across sectors—when choosing a valuation model. In a similar vein, the other analysts also recognized the limitations of the DCF. Analyst F commented on the challenges of communicating DCF-based target prices: *"We all know that it is theoretically correct, but it is very difficult to communicate to the clients, and hence, I use these [EV/EBIT] multiples-based target prices."* In addition, Analyst E described, *"Everyone knows that in many cyclical industries, if you use the DCF, you can get whatever figures from it."*

Although only two analysts used the DCF to some extent to explicitly derive their target prices, all others except for one (Analyst I) calculated the DCF and used it as an auxiliary model. For example, Analysts G and D commented on the essential role of the DCF as a sanity check for their target price:

> *I do a quick DCF as a sanity check for all the different divisions based on their average EBITDA and average maintenance CAPEX. (Analyst G)*

> *Generally speaking, DCF does not define my target price, but never in my valuations has DCF been below the target price. (Analyst D).*

Regarding other potential reasons suggested in the prior literature that influence the valuation model choice, none of the analysts explicitly admitted that incentives played a role. Nevertheless, Analyst A elaborated on the context of the analysts' work and the goals they strived for during the valuation process:

> *One thing regarding the analysts' consensus is that analysts stress their own forecasts all the time to the [market price] consensus. It is a good thing, however, if your forecast diverts from the consensus, because then you represent the positive or negative edge. You can bring additional value to investors when you reason why you are 30% under the consensus. You will likely make the investor think that if his forecasts are correct, the result will be so and so much better or worse than is thought on the market on average. And from there, one can quickly draw a conclusion that at the moment the result is published, the stock price will shoot aggressively either up or down. Those are the kinds of moments in time that are continuously sought by analysts. (Analyst A)*

Accordingly, analysts seem to yearn for situations that guide investors to make decisions, i.e., either to acquire or sell stocks rather than to simply hold them; these are actions that support the business of the brokerage firms.

4.2. Synthesising the Factors that Influence the Primary Valuation Model Choice

Prior research has identified the prevalence of the P/E and, more recently, a rise in DCF use as a primary valuation model. Nevertheless, in this study, it is surprising that only Analyst A relied solely on the P/E and Analyst J solely on the DCF to derive the target price. Among the studied analysts, five preferred earnings-based enterprise value multiples models (integrated with a sum-of-the-parts approach).

All the analysts brought up several factors that affected their primary valuation model choices. It is worth noting that, even though we can find analysts with the same dominant reason behind the choice, the reason mapping per analyst shows different combinations for all 10 analysts. According to the analysts, the most common factors justifying their model choices were

related to target company– and industry-specific characteristics, which appeared simultaneously and were relevant in 9 out of 10 companies (A–I). In four brokerage companies, company-specific reasons can be considered dominant (A–D). Company-specificity rather than industry-specificity as a dominant reason for the model choice is also corroborated by the observation that all analysts value their other energy companies by using models other than those used for Neste. For company-specific reasons, analysts specifically pinpointed the newness of the renewables division, with very limited historical data, limited peer group comparison potential, and an unestablished profitability level. In two companies (H and I), industry-specific reasons can be considered dominant. This reasoning is in line with the observation that these companies, indeed, apply the same valuation approach within the whole industry. With regard to industry-specific reasons, the analysts typically referred to the suitability to value high capital–intensive energy sector firms with multiples.

Client preferences seemed to dominate in three companies (E, F, and G). Analysts want to communicate their valuations in a format that is required by their clients. Interestingly, for one analyst (J) who had always applied the DCF regardless of the valuation target, the habit argument and the analyst's familiarity with a model seemed to play a major role in the model choice. However, he stressed his justification for model choice and stated that the applicability across sectors was the dominant reason.

With regard to other reasons affecting the choice, the market cycle seems to have commonly impacted the model choice. Moreover, the market's consensus on the superiority of certain models was expressed as a justification for model choices. Accordingly, analysts may be interested in models that can be seen as an industry standard or as trendy, a consensus that emerges from either the superiority of a certain model or the general acceptance of its appropriateness.

Regarding the technical limitations of valuation models, one analyst elaborated on the challenges to value a loss-making firm, with certain valuation models showing absurd prices even though the outlook of the firm seemed promising. Analysts using multiples approaches typically argued against using the DCF as their primary model due to its technical limitations. However, this was not the predominant reason for choosing a particular model; rather, it was how they decided to disregard the model (DCF) as a primary one. Reflection on a cash flow focus (instead of an accruals focus) was also not a dominant argument, but it was brought up by an analyst (J) who applied the DCF. Moreover, four analysts stated that the ability to pay sufficient attention to the strengths (and weaknesses) of a valued company's balance sheet is an appropriate reason for their model choice.

Analysts either build their valuation models themselves or inherit them from their predecessors. Four analysts had inherited their models; those who built their own had covered Neste for a relatively long time compared to those who simply inherited the models. Thus, it seems that when the responsibility of covering a company is transferred to a new analyst, that person tends to adopt the old model and continues to improve it. Hence, the inheritance of the valuation model from a predecessor clearly influenced the valuation model choice. This aspect could also be seen as a link to the cost-benefit ratio. Nevertheless, it seems that analysts do not perceive inheritance as a dominant reason for their model choice.

5. Conclusions

Prior literature has investigated valuation model choices by conducting content analysis of analysts' reports to find associations between the use of valuation models and several potentially influential factors in their use. Scholars have been able to find several associations, but they do

not say much about why these associations exist. The exception to this literature is Imam et al. (2008), who utilized both content analysis of analysts' reports and interviews with the analysts to explicitly address the reasons for model choices. Nevertheless, they did not investigate target company-specific aspects in these choices; hence, we lack knowledge about whether target company-specific, rather than industry-specific or other aspects suggested by prior literature influence their valuation model choices. Consequently, following Imam et al. (2008), we drew on analyst interviews but investigated why analysts choose a certain primary valuation model to derive the target price for a particular stock in one company. Although this approach limited the number of analysts to be interviewed and the potential for generalization, we anticipated that this would facilitate our focus on the target company-specific reasons influencing the analysts' choices. It is worth highlighting that there was a great disparity between the valuation models used by the investigated analysts: seven different models were identified among these 10 analysts.

We contribute in many ways to the prior literature on equity valuation, particularly on the reasons for analysts' valuation model choices. Broadly speaking, we provide a more nuanced discussion of these reasons and their importance in this choice. More specifically and most importantly, we first add to the valuation model choice literature by showing that valuation target–specific aspects can play a dominant role in choosing (or not choosing) a particular valuation model, an aspect greatly overlooked by the prior literature. Imam et al. (2008, p. 519) bring forth and provide evidence for the consensus of the prior literature "*that different valuation models are appropriate in different circumstances*". We add to this by providing evidence that different valuation models can be perceived as appropriate by analysts, even in the same circumstances. To further support our arguments about the importance of valuation target specificity in valuation model choices, we provide clear evidence that the analysts emphasizing these aspects appear to differentiate their valuation approaches even within the same industry. A lack of comparability to peers, a lack of history, and uncertainty about forecasting cash flows were all valid for our case company because one of its major businesses (renewable energy) is not yet established. Accordingly, new and unestablished major businesses may greatly affect the valuation model choices for the whole corporation. Nevertheless, it appears that analysts may perceive firm-specific challenges very differently and may still prefer to use multiples even when they do not find appropriate peers for comparison (cf. Demirakos, 2010), or they may use the DCF even if there is great uncertainty about future cash flows. This lends support to Imam et al. (2008), who suggest that the valuation model choice is often a matter of analyst preference.

Second, we add to the scarce literature in the field by corroborating the findings suggested by the prior literature and presenting empirical data for adding nuance to them. In line with Imam et al. (2008), our findings provide clear evidence that analysts consider multiple factors to be influential in their valuation model choices. Regarding the drivers found by prior empirical research, our findings are in congruence with Demirakos et al. (2004), Flöstrand (2006), and Imam et al. (2008), suggesting that industry-specific aspects have great potential to influence the valuation model choice. Like Imam et al. (2008), we also found evidence that client preferences may play a dominant role in model choices. Specifically, they also suggest that client preferences towards multiples instead of DCF were related to the ease of communicating the valuation. Further in line with Imam et al. (2008), we found that reasons related to technical limitations of the model, familiarity with the model, the market cycle, model application universality, and trends/market consensus of the appropriateness of the model have the

potential to influence the model choice.

Third, we also add to the literature by finding some signs of theoretically suggested factors. Although rarely stated, the availability of appropriate information was raised as one reason for a particular model choice (Palepu et al., 2000). Cost-benefit ratio thinking appears to be influential as well. Specifically, this aspect became apparent in cases where the analyst had inherited the valuation model. It appears that the influence of an inherited model can be an essential factor that diminishes analysts' willingness to change it. It is not a root cause behind the model choice, but it cannot be underrated as to why an analyst uses a certain model. Moreover, although the analysts did not name incentive-related aspects as the main reason for their choices, one did elaborate on how situations are sought wherein the analyst's opinion diverts from the consensus. This potential enables the analyst to encourage the client to act on the equity market, and accordingly, they have the potential to bring sales to the brokerage house (cf. Imam et al., 2008). Supporting Flöstrand's (2006) statistical analysis, we did not find any indications of the relative prices argument.

There are fruitful avenues for further research in this field. Inherently limiting the potential for generalization, we focused our study on analysts valuing one company. To extend our knowledge about the target company-specific drivers of valuation model choices, this kind of one-company approach could be extended to other companies within and beyond the energy sector. This would enable researchers to elaborate on whether similar firm characteristics shared by companies influence the model choice, for example. It could also be beneficial to address very large companies with a potentially large number of analysts covering them, hence facilitating statistical analysis per company. We witnessed only weaker signs of possible incentive influence on the valuation model choice and its use. This interesting phenomenon can potentially be further brought to light by conducting case studies at brokerage houses and by using participant observations. In addition, we obtained certain hints that other models sometimes act as a sanity check for the primary model. Consequently, it would be worthwhile to study the interplay between the different (primary and secondary) models and the factors that affect the choices of secondary models.

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Appendix 1: The Valuation Models

SOPHISTICATED MODELS			
DCF	Discounted cash flow model	Future free cash flows discounted to gain present value	Cash flow
DDM	Dividend discount model	Share price determined by the expected dividends and investor required rate of return in the future	Cash flow
EVA	Economic Value Added	Net Operating Profit After Taxes (NOPAT) - (Invested Capital*WACC)	Accruals
RIV	Residual income valuation	Extracts equity costs*equity capital from net income	Cash flow
APV	Adjusted present value	Net present value if financed only by equity + debt financing benefits	Cash flow
CFROI	Cash flow return on investment	Cash flow divided by the market value of the capital employed	Cash flow
NAV	Net asset value	Liabilities deducted from assets and divided by the number of shares outstanding	Cash flow
UNSOPHISTICATED MODELS			
P/E	Price-to-earnings	Stock price / share divided by earnings per share	Accruals
P/B	Price-to-book	Stock price / share divided by book value per share	Accruals
P/S	Price-to-sales	Stock price / share divided by sales per share	Accruals
P/CF	Price-to-cash flow	Stock price / share divided by cash flow per share	Cash flow
EV/ EBITDA	Enterprise value to earnings before interest, tax, depreciation, and amortisation	Enterprise value divided by EBITDA to show how many years the firm will take to generate as much as its market capitalisation (debtless)	Accruals
EV/EBIT	Enterprise value to earnings before interest and tax	Similar to EV/EBITDA, but accounts for depreciation and amortisation	Accruals
DY	Dividend yield	Price gained by dividing annual dividends per share by the price per share	Cash flow

Appendix 2: Interviewee Basic Data

BROKERAGE FIRM	ANALYST	LOCATION	YEARS COVERING NESTE OYJ	TEAM	SPECIALISATION	INTERVIEW DURATION	INTERVIEW TYPE
A	A	Nordic	x>6	Sole	Generalist	1h 10 min	Face-to-face
B	B1 & B2	Nordic	3<x>6; x<3	Team	Generalist; Generalist	47 min	Face-to-face
C	C	UK	3<x>6	Team	Specialist	40 min	Phone
D	D	Nordic	x>6	Sole	Generalist	55 min	Face-to-face
E	E	Nordic	x<3	Sole	Generalist	1h 10 min	Face-to-face
F	F	Nordic	x>6	Sole	Generalist	50 min	Face-to-face
G	G	UK	3<x>6	Sole	Specialist	35 min	Phone
H	H	Nordic	x>6	Sole	Generalist	1h 20 min	Face-to-face
I	I	Italy	x>6	Sole	Generalist	25 min	Phone
J	J	Nordic	x>6	Sole	Generalist	60 min	Phone

Appendix 3: Interview Protocol

Interviewee background

- Tell us about your background.
- What are the industries you cover? Do you specialise in oil and gas (or renewables), or are you a generalist?
- How long have you been covering Neste Oyj?
- What is the size of your team?
- What about task division?
- Who takes part in the analysis? What are the roles of the other analysts?

Valuation

1. During your valuation and information gathering, what is your weighting of the renewable products, oil products, and retail divisions?
2. Do you estimate the turnover and operating income development of renewable products, oil products, and retail in the same manner?
3. How does (Finnish) state ownership affect your valuation?
4. Are there industry-specific factors that should be accounted for in the valuation process? Neste-specific? Can you name these factors?

Information (relevance for valuations and forecasts)

5. What are the main sources for gathering information for models and decision-making?
6. What kind of news is considered to be relevant and usable?
7. Do you consider the reference margin for your valuations? If not, why not?
8. Do you make assumptions about the content of the additional margin? Please elaborate.
9. How are renewable products seen in your valuation report?

ESG

10. What is the value of environmental, social, and governance disclosures (ESG)?
11. Is there an information exchange with the ESG team from the organisation (only applicable if an ESG team exists)?
12. Can you elaborate on whether there is increasing relevance indicated from the buy-side?
13. How do you see the development of ESG-factor relevance in the future?
14. Overall, do you perceive that you have enough access to data for your valuations?

Primary valuation models used

15. How was your model developed or brought into being?
16. What kinds of categories are in the model, and how are they weighted?
17. What types of inputs does your model have?
18. What is the analysis/valuation timeframe? How was it decided?
19. What valuation model is directly linked to the target price?
20. Why did you choose the model?
21. How long has that model been used?
22. Have you considered other models? Why or why not?
23. Is Neste's valuation based on multiple valuation models?
24. If multiple models were used, was weighting used in the decision-making?
25. Do you account for market volatility in your valuations? How do you come up with the discount rate?
26. How do you estimate the turnover and EBIT development for Oil Products and Retail?
27. Do you account for SG&A at the individual business level in your valuations?

Other

28. Are there other qualitative factors that influence the valuation of Neste?
29. Have you accounted for qualitative factors in the valuation model?
30. How important is industry knowledge in your decision-making?
31. What are the biggest challenges in the valuation of Neste?
32. What additional material would you want the company to provide to further support your valuations?
33. How does Neste differ from its peers in the valuations?
34. How do you evaluate the reliability of Neste's management? Do you bring these qualitative factors into your analysis? If so, how?

Lahjoittaminen on tulevaisuuteen sijoittamista – Liikesivistysrahasto tukee apurahoin liikkeenjohtoa palvelevaa tutkimusta, koulutusta ja julkaisutoimintaa.

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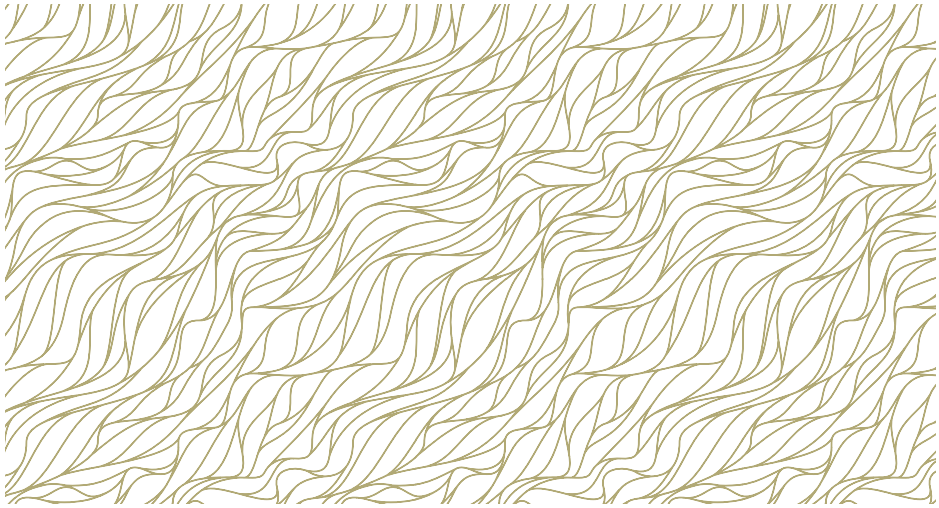

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