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Understanding Firms' Approaches to Voluntary Certification: Evidence from Multiple Case Studies in FSC Certification

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Abstract Voluntary certifications, such as Forestry Stewardship Council (FSC) in the forestry sector, are used to manage sustainable and socially responsible practices in firms. Even though the certifications are based on standards, it has been reported that adopting firms are nothing but a homogeneous cohort of adopters and in fact differ in their approaches to the certification. In this paper, we conceptualize firms' approach to certification and link the approaches to various aspects of certification. Using an inductive approach and deriving our data from multiple case studies from forestry FSC certification, we argue that firms' approach to certification is explained by their development of absorptive capacity, alignment of their organizational routines and their engagement in negotiations with FSC. We also argue that these approaches affect firm's benefits from certification, their level of adherence to the requirements of the certification and their likelihood to withdraw from the certification. We discuss our findings in view of the literature on absorptive capacity, institutional literature and the literature on collective action and also discuss the implications of the study to voluntary certification literature in general.

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Introduction

FairTrade mark for socially responsible trading and sourcing; *Forest Stewardship Council* certification for sustainable wood; *USDA Organic* label for organic produce; *Marine Stewardship Council* certification for sustainable fishing; *B-Corps* certification for socially and responsible firms or *LEED* certification for sustainable buildings are examples of various *voluntary certifications*,[1] which provide firms with standards and compliance mechanisms for sustainability and social responsible practices. The reception of voluntary certifications has been mixed: from promising statements, which labelled certifications as "pioneers" in building a more sustainable economy (SustainAbility 2011) to arguments that the world needs to move "beyond certification" (Poyton 2015). Regardless of these positions, voluntary certifications are an important part of global markets and international trade (Potts et al. 2014) and diffused widely across the globe (Delmas et al. 2013).

The literature on voluntary certifications has been growing steadily over the last decade. The studies have covered various aspects of voluntary certifications; for instance, mapping the benefits (Blackman and Rivera 2011; Heras-Saizarbitoria et al. 2011), describing their diffusion

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[1] The literature uses several modifications of the term "voluntary certifications"; such as voluntary certification programmes or eco-labels (Castka and Corbett 2014). All of these terms refer to certifications that are administered by third parties with independent verification mechanisms and which are voluntary. In this paper, we use the term "voluntary certification" or only "certification".

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across industry sectors and countries (Delmas 2007; Guler et al. 2002) and assessing the impact of various certifications such as that of ISO 14000 (de Jong et al. 2014), FSC (Brown and Zhang 2005; Cubbage et al. 2010; Johansson and Lidestav 2011) or Fair Trade certification (Le Mare 2008). Although there is an agreement on some aspect of certification (most notably on the diffusion mechanisms; Castka and Corbett 2015) many studies report contradictory findings in terms of the impact of voluntary certifications (Corbett et al. 2005; Elad 2001). The contradictions are often attributed to a *lack of understanding of firm-level approaches to voluntary certification* (Ivanova et al. 2014). Voluntary certifications are supposed to create homogeneous practices in adopting firms. Yet in reality, firms show variation of their practices and approaches to certification (Sandholtz 2012). Ivanova et al. (2014) argues that studies typically compare adopting and non-adopting firms and report difference "on average" or pick few firm specific practices and test first-order effects or path models (Heras-Saizarbitoria and Boiral 2012; Prajogo 2011). In doing so, they overlook the holistic nature of subtle firm-level nuances and their impact on the certification. According to Ivanova et al. (2014), such omission creates inconsistency in voluntary certification research.

In this paper, we recognize the need to provide more insight into firm-level certification practices. Our research has two main objectives. Firstly, we aim to describe *firms' approaches to voluntary certification*. In other words, we are interested in how firms choose to manage and maintain the requirements of the certification and why. Secondly, we aim to determine *how firms' approaches impact the certification*. The problem is studied in the context of Forestry Stewardship Council (FSC) certification[2] in New Zealand. We started the research by interviewing industry experts from various stakeholder groups to get a broader understanding of the issues in the New Zealand forestry sector and about FSC. This initial exploration guided us through the main research—we used an inductive approach (Miles and Huberman 1994) and collected the data from multiple case studies (eight case study organizations were used in this research). The data was collected and triangulated from interviews, company documents, observations and audit reports. Our findings reveal that firms' approach to certification is explained by their development of absorptive capacity, alignment of their organizational routines and their engagement in negotiations with FSC. We also argue that these approaches affect firms' benefits from certification, their level of adherence to the requirements of the certification and their likelihood to withdraw from the certification. In the paper, we discuss our findings in view of the literature on absorptive capacity, institutional

literature and the literature on collective action and also discuss the implications of the study to voluntary certification in general.

This research is important for several reasons. First, the FSC is a voluntary certification that has significant impact. It is considered by many as the "gold" standard for wood sourced from well-managed forests: the most stringent (Gulbrandsen 2005) and one of the most widely adopted (Schepers 2010). FSC has also maintained high standards for a long time and stood the test of time in the face of increasing competition from other certification schemes, such as PEFC, SFI or ISO 14001 (Schepers 2010). FSC can therefore be considered an exemplar setting to study voluntary certification, and any shortcomings that are identified in the context of FSC are most likely to be present in other certifications. Second, as we have pointed out already, we focus on a problem that has been under-investigated in the general literature on voluntary certifications as well as in FSC-related studies. In the context of FSC, several studies started to investigate firm-level approaches to FSC certification yet the results are presented in an aggregated manner (Araujo et al. 2009; Carlsen et al. 2012). Although this approach is valuable in providing general outlook on firms' practices in FSC, it does not provide an in-depth insight at how various practices impact the certification—which we do in this paper. Third, firm-level practices tend to be studied in the context of ISO 9000 certification (e.g. Ivanova et al. 2014). Although some of the findings might be relevant in the context of FSC, FSC certification is more demanding in comparison to ISO 9000 (Tamm Halström and Boström 2010) hence providing more complex setting for an investigation. We also make further contribution to the existing literature by discussing the differences and similarities between the findings in the FSC context and in the context of other certifications. Fourth, New Zealand provides a unique setting for our investigation. FSC has been widely adopted by the industry and a lot of firms were early adopters of FSC. New Zealand forestry industry is also unique in its structure (for instance, the government controls native forests and separates them from plantations) and also has some unique issues (mammal and pesticide control exemptions). New Zealand local specifics are therefore in a direct clash with some of FSC's requirements and FSC is also the only forestry certification available in the country. This institutional pressure adds to the dynamics of firm-level practices, which we also describe in our findings.

Because our study is inductive in nature, we do not include a Literature Review section in the paper. Rather, we use the space available in the paper to discuss the research methodology and bring the literature into the discussion of our findings. This paper is structured in the

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[2] Appendix 1 provides background information on FSC certification.

following way. First, we start with a section on *Method and Analysis*. The section describes case study methodology inclusive of sources of data and data analysis. Second, we present and discuss our *Findings*. This section builds on within-case and cross-case analyses, which are extensively discussed in the context of three propositions. We also link our findings to existing theories, namely *absorptive capacity, institutional theory* and *the theory of collective action*. We conclude by a *Discussion* section that further knits our results to the literature on voluntary certifications and which also discusses future research and limitations of our study.

Method and Analysis

Our research uses a comparative case study approach (Eisenhardt 1989; Miles and Huberman 1994) and aims to develop a theory on firms' approaches to certification and their impact on the certification. The data were collected from eight forestry case study firms from several sources. We also interviewed 13 industry experts from various stakeholder groups and briefly report on this investigation. Data were analysed using standard approaches in qualitative research (described later in the paper) and the multiple sources were used to triangulate the data (Yin 1994). The results of the analysis are presented in a form of first-order indicators, second-order concepts and themes—an approach that is widely used in qualitative studies (Nag et al. 2007; Su et al. 2014). The outcome of the research is a set of propositions and we also present cross-case comparisons as well as quotes from our participants to demonstrate the theory that emerged from our study.

Interviews with Industry Experts

As part of the build-up to the main study, we interviewed thirteen industry experts. The experts included auditors, NGOs, institutional leaders, governmental officials, retailers, policy analysts and an independent mediator.[3] We did not have any interview protocol as such. We opened the interview with an explanation of the purpose of our research and started the conversation with a general question "how do you view FSC certification in New Zealand?". We have used the insights gained from one interview in a formative way and built on that understanding in subsequent interviews. The interviews gave us a holistic perspective on FSC in New Zealand. There was a

clear position from most respondents that to be part of an international marketplace, growers need to demonstrate their ethical and sustainable credentials—and certification with FSC is able to provide that. The respondents also discussed some particular firms and gave us insight into areas, where we probed the case study organizations. We also got a clear understanding of the benefits and disadvantages of FSC. In particular, the respondents raised an apparent misfit of some of FSC's requirements in the New Zealand context.[4] We also learnt about industry collective action that aimed to influence FSC to gain exemptions to New Zealand-based firms as well as about firms' consideration to withdraw from the certification. Overall, the insights from expert interviews gave us a set of context-specific observations, which helped us to better understand firms' approaches to FSC certification and general issues in the industry.

Case Selection

A representative sampling approach was utilized, where cases were chosen to include a range of small, medium and large, firms owned domestically as well as firms with foreign ownership, long standing FSC participants and recently certified firms, with the aim to gain as wide a perspective as possible (Barratt et al. 2011; Miles and Huberman 1994). The following has been done to create a representative sample of New Zealand FSC-certified forestries. Large forestries were selected as they represent a third of the total forest plantation and play a significant part in the New Zealand scene. Māori-operated forestries were included to capture the indigenous issues and perspectives. Two firms in the sample also run both forestries and saw mills in an integrative matter—giving us an opportunity to see FSC Forestry management in the context of chain of custody. Table 1 provides details about forestry firms that we used in this study. The names of the firms were replaced by case numbers. We have also disguised information about the size, year certified and percentage of FSC products for export. This is because the NZ market place is small and it is relatively easy to figure out the actual firms from such information. However, omission of such descriptive statistics does not impact the comprehension of the findings reported in this study.

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[3] The experts belonged to the following organizations: Crown Forestry, NZFFA, NZFOA, Ministry for the Environment, Ministry of Primary Industry, Mitre 10, NZ Institute of Forestry, Council of Outdoor Recreation Association, Royal NZ Forest and Bird Society, Greenpeace NZ and SGS.

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[4] In particular, the conflict with principle 10 around plantations and the value of plantations in New Zealand to prevention of the depletion of natural forests. Other significant issues that were raised by the respondents included the need to use chemicals for intensive plantation management and the desire for forestries to use GMO product. A further challenge identified was a misfit of FSCs' requirements in relation to the indigenous issues around land use and Treaty of Waitangi.

Table 1 Case study organizations involved in the research

Name	Size	Business type	FSC-related info
CASE 1	Medium	Forestry management company	Late adopter; most FSC-certified products for export
CASE 2	Small	5 forests, 2 mills & log trading Co	Early adopter; most of FSC-certified products for export
CASE 3	Large	Forestry management company	Late adopter; half of FSC-certified products for export
CASE 4	Large	Forestry management company	Late adopter; undisclosed
CASE 5	Medium	Forestry management company	Late adopter; about 3/4 of FSC-certified products for export
CASE 6	Medium	Fully integrated forestry, pulp and sawmill	Early adopter; all export
CASE 7	Medium	Forestry management company	Early adopter, about half of FSC-certified products for export
CASE 8	Large	Forestry management company	Late adopter; about half of FSC-certified products for export

Data Collection

This study was undertaken over a 10-week period between October and December 2012. The data were collected through several avenues. We used semi-structured interviews and interviewed a person that was responsible for the certification (in three case study organizations, we interviewed head of an organization—CEO, General or Managing Directors; in five cases Forestry, Environmental or Risk Managers). The interview protocol (Appendix 1) involved asking six key questions and exploring into varying areas of interest that each case study organization brought up in discussion. Interview questions were open ended to provide the respondent a freedom of addressing the questions from their stance—rather than directing them to a specific set of items that the researchers might deemed important. This enabled probing context and experiences of actors and managers in various areas of interest with quite different perspectives and issues of concern. The questions mirror a set of typical aspects of voluntary certification (Castka and Corbett 2013): weather firms find the certification beneficial, what is cost of certification, what practices a firm had to introduce to comply with the requirements, etc. Similar probing questions were used in other case-based research on voluntary certification (Sroufe and Curkovic 2008). We add firm-level and forestry industry questions to the probing framework: internet searches were undertaken prior to each interview to understand the context of each company and we also went back to our notes from the expert interviews. From each interview, a transcript was produced. Each interview was conducted at the respondent's premises, and we also collected additional data—including documentation, audit reports and general observation. Some firms shared with us their systems manual and we have also informally talked with others in the firm to triangulate the data from the interview with the main respondent. We observed that the main respondent was often the only person that was able to provide a holistic outlook on the certification in each firm.

We have therefore used the interview as the central piece of our research and built the data collection around it.

We also focused on the development of trust with the respondent and case study organizations: we have gained an ethical approval from the University, which was shared with the participants. We also gave the respondents a copy of the transcript to verify our observations. Overall, we observed that our respondents were quite frank about the certification and also about their firm's approaches. Managers were for instance ready to disclose less mature practices (e.g. "it was a surprise to us to realize that only 1 % or our produce is sold as certified…. the perception on the importance of FSC in the export market that was untested until recently"). The respondents were also frank about their intentions with FSC. For instance, half of the participating firms would investigate other certification alternatives and had no problem entering into another scheme should this be able to provide environmental credentials. In each case study, we triangulated the data—either by investigating the documents (internal documents or external audit reports) or by verifying with others in a firm. We had therefore high confidence in the quality of the data.

Data Analysis

The analysis started with within-case analysis (Yin 1994). We adopted an emerging coding approach (Miles and Huberman 1994). First, we focused on a generic question ("How do firms approach certification?") and identified a set of first-order indicators. For instance, firms might discuss their IT investments into management systems that were required for the certification and how and why they did so. In the second stage, we have clustered the first-order indicators into second-order concepts. This work has been done by each researcher. After this stage, we have met and compared our results. There was a high degree of agreement on most of the concepts (we have measured the agreement by inter-rater reliability, which reached

approximately 75 % in this round). Second, we have fine-tuned the coding through several rounds of iterations and included all cases in our analysis. During this stage, we have also assessed a degree of maturity (high/medium/low) for each of the second-order concepts. For instance, in *Managing the demand for FSC*, we assigned *high* degree of maturity to firms who had a precise decision-making mechanism in place and were systematic in managing their demand; *medium* was assigned to firms who had demand management in place but were unable to fully utilize their FSC produce; *low* to firms who based their demand management on assumptions. Similar logic was adopted for other second-order concepts. Again, we have compared our results and sorted the differences (this time the inter-rater reliability was around 90 %). The resulting coding scheme is depicted in Fig. 1 and we discuss the themes and second-order concepts in the *Findings* section. The results of the assessment of degree of maturity are provided in Table 2.

In the third stage, we started to investigate the impact of certification on each firm. We were interested in various impacts, namely whether firms find the certification beneficial, what their level of compliance with the certification was and whether a firm would consider a withdrawal from certification. These impacts were measured in the following way. Based on the prior literature (Castka and Corbett 2015; Overdevest 2010; Schepers 2010), *benefits from certification* were clustered into market opportunities benefits, operational benefits and customer relationships benefits. We determined a degree to which a firm found the scheme beneficial based on the interview with the main respondent. The respondent would provide his/her overall view on the benefits and also disclosed the hard data (i.e. % of market share; % of customers that required certification; improvements in the operations such as improved H&S). Each company was coded as high/medium/low depending on the variety and level of the benefits. *Level of adherence to the certification* was based on audit performance of each firm. The auditing literature suggests that firms approach certification with various intentions—some to comply with the minimum requirements, others to go beyond the bare minimum (Castka et al. 2015). Higher levels of compliance were also linked with more adherence to certification and more substantial (rather than symbolic) implementation of the requirements (Boiral 2003). Consequently, we assessed our case study organizations in the following manner: high level of compliance meant that a firm had clean audits or some minor Corrective Action Requests (CARs), medium that a firm might have some major CARs, low was given to firms that typically had high number of major CARs. Finally, we assessed *firms' intention to withdraw from certification*. This was classified in binary

terms (YES/NO) and this coding was based on the discussion with the main respondent in each firm. The coding of the impacts was managed in the same manner as the coding of firms' approaches to certification: multiple coders were involved and the process went through several iterations. We have also coded the impacts separately to the coding of the approaches and the coders were not aware of the results of the previous exercise. We did so to keep the coders focused and minimized the hallo effect in coding.

The fourth stage involved a cross-case comparison. Table 2 shows an overview of our cases and varying degree of maturity of case study organizations for each second-order concept. At this stage, we combined *firms' approaches* and the *impacts* and looked into the linkages. This stage had several iteration and we followed similar processes that we have described in the previous stages. We also had to go back to case organizations to gather additional data or to verify the findings.

Findings

Our study scrutinizes firms' approaches to FSC certification and, subsequently, their impact on the certification. Using a case study methodology, and based on an analysis of first-order indicators and second-order concepts (see Fig. 1), we have derived three themes: "Development of absorptive capacity", "Alignment of organizational routines with FSC's requirements" and "Engagement in negotiations with FSC." The themes describe firms' approaches to FSC certification, or in other words, how firms choose to manage and maintain certification. In this section of the paper, we explain each theme in detail. We also develop propositions on the three themes to explain how they impact on FSC certification.

All firms in our study had to maintain their certification and therefore had to "manage" their approach to certification in some way. Our propositions, however, discriminate between firms that managed to do so successfully and firms that did not. Our theory suggests that firms, which develop their absorptive capacity, are able to reap greater benefits from the certification. The theory also suggests that firms who align their organizational routines at their firms demonstrate higher level of adherence to certification. And finally, our theoretical framework suggests that firms get engaged in negotiations with FSC—due to operational difficulties and uncertainty around FSC's future requirements and found that more engaged firms are also more likely to seek alternative certifications if their involvement with FSC does not provide exemptions that they seek. The resulting theoretical framework is presented in Fig. 2.
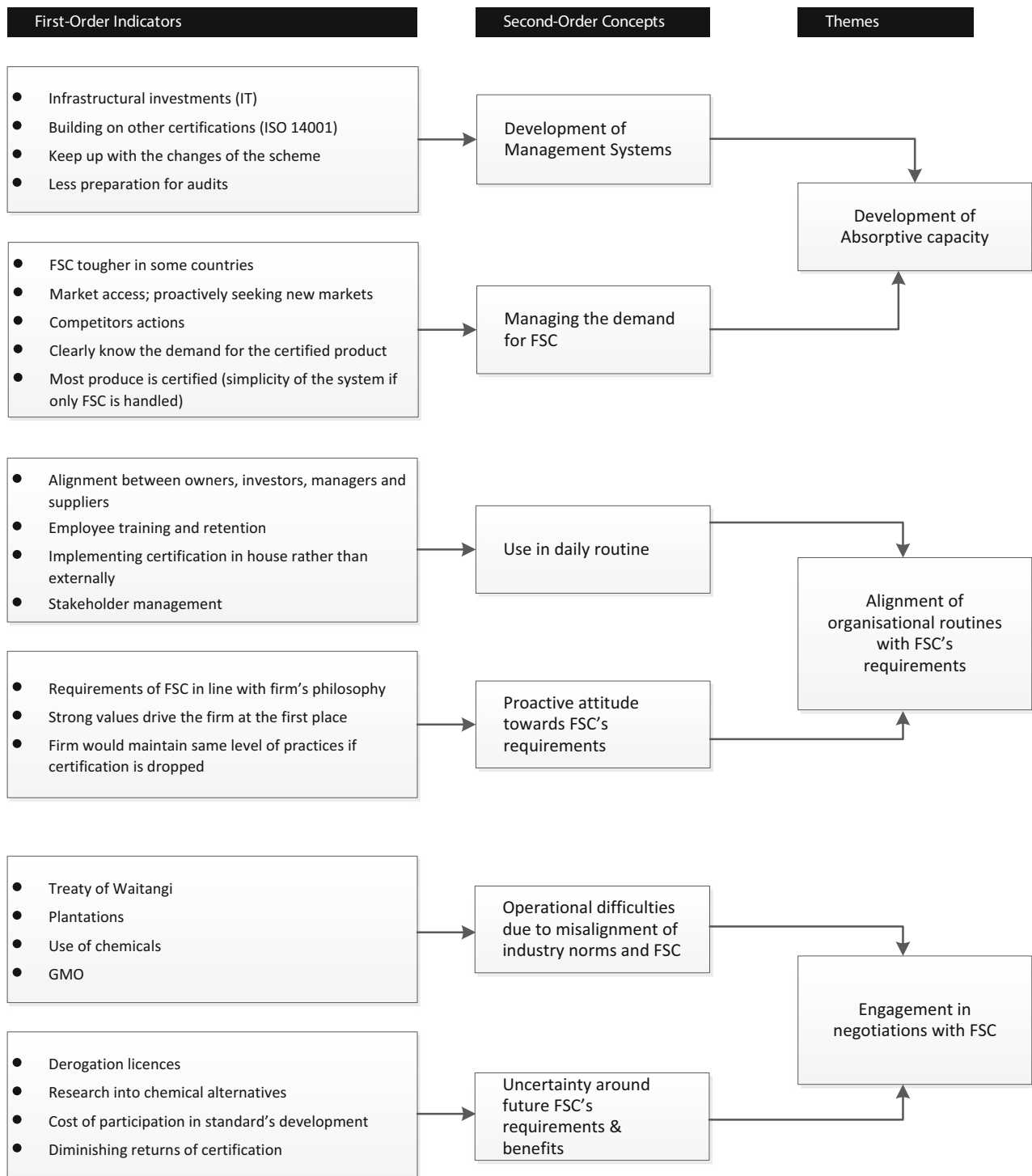
Fig. 1 First-order indicators, second-order concepts and themes

Absorptive Capacity and Firm-Level Benefits from the Certification

Absorptive capacity refers to the ability of firms "to identify, assimilate, and exploit knowledge from the environment" (Cohen and Levinthal 1990). The development of absorptive capacity has been also described as a process, where such capability is acquired, developed and used to drive competitive advantage of a firm (Zahra and George 2002). In the context of voluntary certifications,

Table 2 Cross-case comparisons of the case study organizations

Case	Development of management systems	Managing the demand for FSC	Firm-level benefits from certification	Use in daily routine	Proactive attitude towards FSC	Evidence from External Audits	Operational Difficulties	Uncertainty around future requirements	Considering withdrawal from certification
1	High	Medium	Medium	Medium	Low	CARs present	High	Medium	NO
2	High	High	High	High	High	One CAR present	Medium	Medium	NO
3	Medium	Low	Low	Medium	Low	CARs present	High	High	YES
4	Medium	High	Medium	Medium	Low	"Never get a clean audit"	High	High	YES
5	Medium	Medium	Medium	High	High	No CARs in the last audit	High	High	YES
6	High	High	High	High	High	No Major CARs, 2 minor CARs present in last audit	Low	Low	NO
7	High	High	High	High	High	Audits are pretty good and easy flow through	High	High	NO
8	High	Low	Medium	Medium	Low	No outstanding Major CARs, but an outstanding minor CAR present, new deadline set. There were Major and Minor CARs present in the past	Medium	High	YES

absorptive capacity refers to a firm's ability to build their certification capability by adopting various standards over time (Castka and Corbett 2013; Su et al. 2015).

Our research reveals that the firm-level benefits from the certification are impacted by absorptive capacity of certified firms. We also found that absorptive capacity stems from two second-order concepts: *development of management systems* and *managing the demand for certified produce*. In other words, managers need to continually develop a compliant system at their firms—a system that captures certification-related issues. At the same time, firms also need to be well informed about market's demand for certified produce and use that intelligence to manage their portfolio of certified as well as non-certified products. If we compare firms in this study, firms who developed strong absorptive capacity were more likely to gain more benefits from the certification. Better firms invested their resources in the development of their systems and were well informed about the market demand for the certified product. On the contrary, firms who showed lesser degree of absorptive capacity were neither very systematic in the development of their management systems not in their demand management. Table 3 shows cross-case comparison of absorptive capacity in our case study organizations. Next, we discuss each second-order concept and provide examples from the cases.

Development of Management Systems

A management system is a central part of quality management (Deming 2000) and in fact a central part of voluntary certifications (Castka and Corbett 2013; Overdevest and Rickenbach 2006). The term management system refers to "a set of interacting elements of an organization to establish policies, objectives and processes to achieve those objectives" (ISO 9001 standard). In the context of voluntary certification, a management system provides an overview of key process and procedures, which demonstrate firms' adherence to the requirements of the certification. Our findings revealed that a development of management systems is one factor that differentiates firms that find the certification beneficial and those who do not. As one manager pointed out:

> .. we have spent substantial time around systems development - we also gained ISO14001 in tandem with FSC…. [Our competitor] had to outsource the environmental assessment, employed external consultants, because they did not have the skill set within the company to handle this. We felt this was not too onerous at all. [CASE 1]

The quote above also highlights other important aspects of *management systems development*. First of all, firms learn
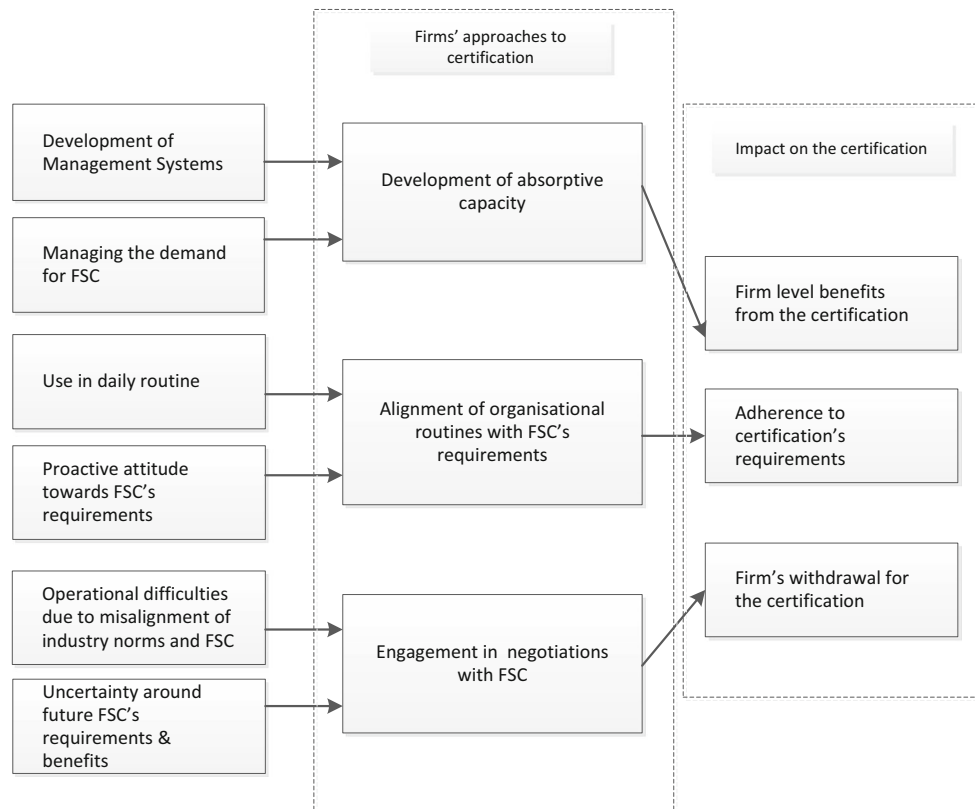
Fig. 2 Theoretical framework

Table 3 Cross-case comparisons of absorptive capacity

Case	Development of management systems	Degree	Managing the demand for FSC	Degree	Benefits
1	Strong system in place Actively seeking FSC markets Building on other certifications	High	Managing various certifications in their facilities across the globe Not fully utilize their demand	Medium	Medium
2	Strong system in place	High	FSC demand forms a large part of the operations Actively seeking FSC markets	High	High
3	Participation in international networks—up to date with regulations Audit preparation takes time	Medium	Unaware on actual demand	Low	Low
4	Partially building on other certifications	Medium	Managing various certifications in their facilities across the globe	High	Medium
5	System for stakeholder management stands out	Medium	Not fully utilize their demand	Medium	Medium
6	Can get other units certified quickly—high systems competence Less prep for audits	High	Interlinked—they can ramp demand up quickly	High	High
7	Building on other certifications (ISO 14001) IT infrastructure in place to manage the certification Less prep for audits	High	Tightly monitoring demand	High	High
8	Building on other certifications (ISO 14001) Strong system in place	High	High fluctuations of demand Not able to get into local demand	Low	Medium

from other certifications to develop their FSC compliant management systems. For some firms in our sample, it was a focus on ISO 14001 certification (a certification for a generic environmental management system) or a focus on building other non-certified systems in-house (for instance for stakeholder management). Regardless of the focus, it was clear that the knowledge and experience is transferable and adds to the development of FSC. The quote above also highlights the importance of continuous improvement approach in the development of firms' management systems. In successful firms, it often meant that over time, the maturity increased. For instance, one respondent pointed out:

> ..in this recent recertification there was little in our systems that needed to be changed to cater for FSC……. We have a very good management system in place. [CASE 8]

It should also be noticeable that the development of management systems requires investments. Some firms were willing to invest and created mature management systems, such as Case 7 where managers invested into IT infrastructure:

> We have implemented an IT process linking resources, with instant reporting, operations monitoring ability and resource consenting. They had good monitoring on trends… set up the standards records and continuing the development of all this (CASE 7)

The investments in the development of mature management systems (for instance by investing into IT support) had positive impact on audit preparedness. These organizations spend little (or no time) to prepare. On the other hand, less mature management systems in organizations often meant substantial preparation for external audits—in same cases a week or more.

Development of management systems is an important part of absorptive capacity and contributes to firm-level benefits from certification. However, it is not only management systems that matters to absorptive capacity—organizations also need to be able to closely follow the certification market place and manage the demand for certified produce.

Managing the Demand for FSC

The demand for certified produce could be difficult to predict. Potts et al. (2014) argues that in many commodity markets, the demand can actually fluctuate significantly. Potts et al. (2014) provide the data from several commodity markets (bananas, coffee, wood, forestry and others) and show that in recent years there has been often an over-supply of certificated produce. Such instability of

demand/supply puts an extra pressure on managers and on management of certified produce. Many managers commented on the difficulties in their demand/supply management:

> [For us], FSC demand is 35 % approximately, on average 10 % but this can vary to up to 30 % some months. Less than 10 % of domestic is FSC demanded. There has been no consistency …… [CASE 8]

> There has been a definite increase in FSC demand thru the chain of custody since the Global Financial Crisis, as there has been a shrinking market so suppliers have had to widen their net to gain better market access [CASE 7]

The quotes above demonstrate that the demand/supply side of certification is challenging. Firms in our research showed a large variance in how they approached their demand management. In some cases, firms had very little understanding of what is the actual demand for certified produce. For instance, one manager stated that:

> The export FSC trade is down drastically with only 3 international customers demanding FSC product amounting to 16,000 m^3 (one of these reducing 75,000 to 15,000 m^3). ….the FSC export demand figure is only 1 %. This statistic was a surprise to us." [CASE 3]

In contrast, other firms were monitoring the demand quite closely and saw opportunities in the market dynamics for certified produce. In general, the firms with high degree of maturity of their demand management were also able to identify new markets and get more business. Others were content to sell the produce as non-certified.

Firms were also quite strategic in their choice of certification. In forestry, there are several competing schemes (FSC, PEFC, SFI). In some countries, the choices are limited (for instance, FSC is the only certification scheme that operates in New Zealand) yet in other countries, firms do have choices. Global firms (such CASE 1 and 4) were quite selective and driven by their perceived stringency of the schemes in various countries. Such strategy allowed them to effectively manage the demand locally as well as globally. For instance, one manager explained:

> In [Country 1], we are certified by [certification scheme 1]; in [Country 2] by [certification scheme 2]. Reason for this is that FSC is much more stringent in [Country 2]. [CASE 1]

In summary, absorptive capacity refers to firm's ability to "to identify, assimilate, and exploit knowledge from the environment". We have shown that absorptive capacity is

formed by the development of management systems as well as market awareness about the demand for the certified produce. Table 3 provides an overview of the findings from our cases.

Our findings resemble the findings from operations strategy literature. Hayes et al. (2005), for instance, acknowledge that firms' competitive advantage is driven by their abilities to develop internal capabilities and their ability to understand their market place. This seems to apply in the certification context as well. We propose that:

Proposition 1 *Firms with high levels of absorptive capacity are more likely to sustain high levels of firm-level benefits from FSC certification.*

Alignment of Organizational Routines and Adherence to Certification's Requirements

The institutional theory argues that there is a difference between stated and actual organizational practices (DiMaggio and Powell 1983). High alignment between stated and actual practices is referred to as tight "coupling" or alignment of organization routines; misalignment as "decoupling" (Sandholtz 2012). In the certification context, decoupling means that a firm has a documented management system yet it is not used to in daily practice (Boiral 2003). On the contrary, tight coupling means that organizational routines are aligned in the firm and its supply chain.

Building on this theoretical underpinning and the data from our research, we argue that the alignment of organizational routines leads to higher degree of adherence to certification's requirements. Our findings suggest that firms with higher degree of alignment of organizational routines have less (or no) major corrective actions requests (CARs) in comparison to firms who have lesser degree of alignment of organizational routines. The alignment of organizational routines stems from *use in daily routine* and *proactive attitude towards FSC certification*. In other words, a management system (which is a manifestation of the certification) has to be used in daily routine, and at the same time, a firm needs to view the requirements of the certification favourably. A cross-case analysis of our case study firms is presented in Table 4 and our findings are consistent across the sample of our firms.

Use in Daily Routine

Adherence to certification's requirement differs from a firm to firm. In an extreme case, a compliance system can exist on paper (Karapetrovic and Willborn 2001), a firm might fabricate the evidence to pass the audit (Balzarova et al. 2006) and the certification is not very central to their everyday routine. On contrary, in other cases firms put their certification in centre of their organizational life and use them in daily decision making (Naveh and Marcus 2005). Several firms in our research have been focusing closely on embedding and using of their certification in their daily routines and as a result were more aligned with the certification. For instance, one manager commented:

> There was little impact of change on [our organisation] when we adopted FSC ….. now we have assimilated all the reporting and many processes required for an audit into our everyday reporting and management processes. [CASE 2]

Whether firms used the certification in their daily routines was influenced by many factors. For instance, firms that showed high degree of *use in daily routine* also showed high staff retention. High staff retention also meant less expense for training and a continuous development of certification-related skills. For instance, in one case the respondent commented:

> We have a very stable workforce and stable contractor base, making it very easy for ensuring practices and policy are followed correctly. Consequently we have little induction work to do and have good policy and process for this. [CASE 6]

The use in daily routine was also impacted by firm's ability to change. For instance, managers struggled to persuade others to adhere to certification because people did not believe in the certification at the first place. The following quotes demonstrate some of these points:

> [People] question belonging to FSC, especially the economics of it when so little of their product actually goes to FSC COC, but our owners like it and we will [maintain the certification]. [CASE 1]

> Sometimes there is conflict with older people in the business, with older attitudes, who think that they are giving away too much and going soft [CASE 4]

Firms in our sample show a mix of high and medium degree of *use in daily practice* (Table 4) and firms were in general able to reasonably embed their management systems into their daily routines. Table 4 also demonstrates that firms with high degree of *use in daily practice* also had better results in their audit reports hence a better adherence to the certification's requirements. The adherence is, however, also impacted as well by their attitude towards the requirements of the certification.

Table 4 Cross-case comparisons of Alignment of organizational routines

Case	Use in daily routine	Degree	Proactive attitude toward FSC's requirements	Degree	Evidence from external audits
1	Proactively developing a system in-house Unable to align FSC across management levels	Medium	FSC forcing them to maintain better practices	Low	CARs present
2	Used in daily management Long-term relations with employees	High	Would follow the practices even if they drop the certification	High	One CAR present
3	Developing management system	Medium	They would not follow all practices	Low	CARs present
4	Some conflict amongst employees over the FSC and how does the organization handles requirements	Medium	FSC forcing them to maintain better practices	Low	"Never get a clean audit"
5	FSC requirements seen as helping operations of the business	High	Strong values form a central part of the business	High	No CARs in the last audit
6	Employee retention Supply chain interconnection	High	FSC aligns with firms' philosophy	High	No Major CARs, 2 minor CARs present in last audit
7	Reduced incidents cost	High	Operational discipline, respect the requirements	High	Audits are pretty good and easy flow through
8	Partially in daily routine	Medium	FSC forcing them to maintain better practices	Low	No outstanding Major CARs, but an outstanding minor CAR present, new deadline set. There were Major and Minor CARs present in the past

CAR refers to "Corrective Action Request". FSC website states that "corrective action requests are used by the Monitoring and Evaluation Program to identify changes or adaptations in forest management that have been made in order to meet FSC standards…. Indirectly, this gives a picture of the impacts that FSC certification is having on forest management practices."

Proactive Attitude Towards FSC's Requirements

Firms often show a high variation of motives for voluntary certifications (Prajogo 2011). Some firms have a genuine interest in certification. For instance, firms want to address their environmental performance and seek a certification to assist them in pursuit of better environmental management. In other cases, firms may seek certification due to coercive pressure of their customers and supply chain partners (Corbett 2006)—often to gain market access for certified produce. Various studies demonstrated that a firm's approach towards certification is linked to decoupling: firms with genuine motivation are more likely to show high level of coupling, whereas coerced firms are more likely to adopt certification in a symbolic manner and show high degree of decoupling (Sandholtz 2012). We come to a similar conclusion. Our data reveal that firms, which have a proactive attitude towards FSC's requirements, have also higher levels of alignment of their organizational routines, or in other words, tight coupling.

The proactive attitude towards FSC is manifested, for instance, by firm's willingness to maintain adherence to

FSC's requirements—even if a firm withdraws from the certification. For instance, one manager commented:

> [We] would be following [the requirements] anyway and comments from both [representatives from the organisation] were that if we dropped FSC tomorrow we would still follow most of their requirements [CASE 2]

Other firms were less keen to maintain the same levels of management practices and often commented in the following way:

> Environmental aspect is a big one and FSC forces us to go over and above what we normally would be doing – especially work around threatened species and reserve areas. [CASE 4]

Table 4 shows an overview of the case study organizations and demonstrates a link between alignment of organizational routines and adherence to the requirements of FSC in most cases (all cases but CASE 8 align with this finding). In line with the institutional literature, we argue that alignment of organizational routines increases firms'

likelihood to fully comply with the requirements of FSC (Naveh and Marcus 2005). We therefore propose the following:

Proposition 2 *Firms that have close alignment of their daily routines with FSC's requirements are more likely to closely adhere to FSC's requirements*

Engagement in Negotiations with FSC and Withdrawal from the Certification

The theory of collective action proposes that competing actors may join their forces and act together in order to enhance their status and achieve a common objective (Olson 1971). In the certification context, it has been shown that various stakeholders (especially industry representatives) take collective action in standard development processes to influence the requirements and future shape of voluntary certification (Balzarova and Castka 2012; Castka and Balzarova 2005; Helms et al. 2012). In our research, most of the firms participated in a collective industry effort, which focused on gaining exceptions for the participating firms. The likelihood of a firm's engagement in negotiations with FSC was influenced by two factors: operational difficulties that firms faced as a result of FSC certification and uncertainties around FSC's future requirements. The more central these factors were to firms, more likely they were to engage. Furthermore, higher degree of engagement in negotiations also meant that firms were more likely to withdraw from certification if they failed to negotiate the exceptions. We therefore propose that:

Proposition 3 *The higher engagement in negotiations with FSC, the higher likelihood that a firm withdraws from a certification if they are unable to gain the exemptions that they seek*

Table 5 shows a cross-case analysis of our case study organizations. First of all, it presents an overview of contested aspects of FSC certification. The list contains issues such as use of chemicals, use of GMOs or issues around indigenous rights. In some cases, multiple issues were quite central to firms (such as Cases 5 and 7). This contestation stemmed from the differences in the national legislation and FSC's requirements. For instance, in New Zealand, reserves are separated from plantations. FSC requires holding a specified percentage of plantations as a natural reserve area regardless of this country specific—disregarding historical, national and regional context taken into account. This argument was pointed out by the respondents quite frequently; for instance:

> …plantations are not well liked in the rest of the world and natural forest logging is not the same [in

New Zealand] – we are unique in that respect. That makes it difficult to deal with FSC when you are fighting that concept.

Table 5 also presents the degree of uncertainty of future FSC's requirements. The main uncertainty was caused by the derogation licences and their renewal. This was a problem for a majority of certified firms. A typical comment would stress:

> The unknown is a big issue for us – we spend all this money on compliance and certification and there is no certainty it will be operating for us tomorrow – a few changes in wording or derogation rulings will deem it inoperable for us and we will have to leave.

Apart from the issues around derogation licences, the respondents also stressed that the participation was costly and expressed their concerns about internal politics within FSC, which in their mind slowed down the decision-making processes.

Discussion of the Results and Further Research

An overarching finding of our study is the importance firms' approaches in voluntary certification: for realizing firm-level benefits from the certification, for adherence to certification's requirements hence the governance of voluntary certifications as well as for firms' likelihood of withdrawal from the certification. Overall, we found that firms are (in the greater part) in charge of their destiny. This means that firms' approach to certification is grounded in their business context rather than being shaped by the institutional aspects of the certification. We also identified a great overlap between the findings from FSC context in our study and the findings from the context of ISO certification, which we also discuss below.

In our paper, firms' approaches to FSC certification are described at three levels. First, the development of absorptive capacity describes how organizations "identify, exploit and assimilate knowledge from the environment" (Cohen and Levinthal 1990) in the context of FSC. We show that absorptive capacity is linked to firms' benefits from certification (operational, market and customer related). Absorptive capacity has been previously used to explain the diffusion of voluntary certifications. Albuquerque et al. (2007), for instance, argue that the adoption of one certification predicts an uptake of other certifications (in that case ISO 9000 predicts adoption of ISO 14000). Su et al. (2015) similarly demonstrate the role of absorptive capacity in the adoption of multiple certifications. Our study contributes to the literature by specifically showing the role of absorptive capacity in realization of benefits

Table 5 Cross-case comparisons of engagement in negotiations with FSC

Case	Operational difficulties	Degree	Uncertainty around future requirements	Degree	Considering withdrawal from certification
1	Reserves Use of chemicals Use of GMOs	High	Derogation licences	Medium	NO
2	Use of chemicals	Medium	Derogation licences	Medium	NO
3	Use of chemicals Use of GMOs Plantation issue Cost of participation	High	Derogation licences Politics involved in standard setting	High	YES
4	Use of chemicals Plantation issue Cost of participation	High	Derogation licences Politics involved in standard setting	High	YES
5	Use of chemicals Use of GMOs Plantation issue Reserves Indigenous issues and rights	High	Derogation licences Politics involved in standard setting	High	YES
6	No issues	Low	No issues	Low	NO
7	Use of chemicals Use of GMOs Plantation issue Reserves Indigenous issues and rights Cost of participation	High	Derogation licences Politics involved in standard setting	High	NO
8	Plantation issue Use of chemicals	Medium	Derogation licences Politics involved in standard setting	High	YES

from the certification. We also contribute to the concept of absorptive capacity by pointing at its roots—in the development of management systems and demand management. Second, Institutional theory (DiMaggio and Powell 1983; Meyer and Rowan 1977) explains the alignment of organizational routines and their impact on adherence to certification. We demonstrated that the closer alignment of organizational routines explains higher adherence to the requirements of certification. Our finding aligns with other studies arguing that organizational "decoupling" affects effectiveness of voluntary certifications (Aravind and Christmann 2011). Although previous studies have speculated about the link between decoupling and adherence to certification, in our study we have demonstrated such linkage. Third, collective action of stakeholders in standards development has grown in importance in recent years—also because the emergence of multi-stakeholder standards such as FSC (Tamm Halström and Boström 2010). The studies address mostly the stakeholders' actions and contestation during the set-up of a certification scheme and explain factors leading to settlement for a new

standard (Balzarova and Castka 2012; Helms et al. 2012). Studies in the FSC context have also highlighted the contested nature of stakeholder involvement in the governance of voluntary schemes (Carlsen et al. 2012; Elad 2001). Our contribution is a firm-level viewpoint on collective action. Especially, the finding that the local legislation (if in direct clash with the requirements of a voluntary scheme) mobilizes firms to take a collective action and negotiate exemptions.

Collectively, the three second order concepts in our study explicate how firms' approach voluntary certification *to their advantage* and points out that participating firms are in control of their destiny as far as it regards their certification efforts. Firms invest more or less effort into the certification and such choice is theirs. To that end, a managerial take from our study is that an investment into firms' absorptive capacity or alignment of their routines leads to increased benefits from certification and higher compliance with external audits, respectively. On the other hand, this observation also questions the influence of certification on participating firms. As Elad (2001) observed,

FSC might be misused to legitimize firms' practices and that "unscrupulous forest managers strive to actively use corporate social disclosures to defend their company's enlightened self-interests, or to deflect undesirable stakeholder demands." Even though we would not draw a similarly radical conclusion, our study points out that the real challenge for voluntary schemes is to ensure firms' adherence to their requirements—by focusing on alignment of firms' routines across the firm and supply chain.

Our study also points at the interconnected nature of voluntary certifications. First of all, we have revealed the linkage between ISO certification and FSC certification within our case study organizations. In our sample, FSC-certified firms built their FSC compliant management systems based on their learnings from ISO certification. There has been a clear knowledge transfer between these two certifications in case study organizations. At the theoretical level, there also seems to be an overlap between findings from FSC and ISO certification contexts. For instance, it has been shown that alignment of organizational routines contributes to better operational performance of firms (Naveh and Marcus 2005). This finding also led to speculations about the role of alignment in relation to adherence to certification (Boiral 2003)—a finding that we confirm in our study. Yet the FSC-related literature rarely builds on the findings from ISO certification literature. We speculate that these literatures might be more interrelated than it is believed and we have pointed at several similarities in our paper (development of absorptive capacity; alignment of firms' routines). Yet there are also differences between FSC and ISO voluntary certification (or other voluntary certifications as a matter of fact). Our study has highlighted quite significant participation and engagement of certified firms in FSC's standards development processes. ISO-related literature does not report on firms' engagement in standards development processes (Heras-Saizarbitoria and Boiral 2012). In absence of any evidence, we assume that this is not how firms approach ISO certification. Similarly, the demand management for certified produce is not a central part of ISO certification literature either. We have contributed to the general voluntary certification literature by highlighting some similarities (and differences) and pointing at the potential of bringing these streams of literature together. We would encourage further research to explore this topic further.

Our research is not without limitations. Our research is limited in scope by focusing on a sample of forestry. Further research might investigate the problem in a larger scope and include firms from the downstream supply chain. However, our anecdotal evidence (not reported in this paper) reveals that similar (yet not as complex) firm-level approaches are present the in downstream supply chain and that forestry management is the most challenging aspect of FSC certification. The New Zealand setting might also be a limiting factor. The industry in New Zealand is regulated differently (as we have described in the paper) and there is also only one certification scheme in place. Our findings might therefore be limited by the monopolistic nature of the New Zealand context. For instance, the theme of "engagement with the certification" might be influenced by the unique aspects of the certification in New Zealand. Further research might use more competitive environment to further describe firms' approaches to engagement. Finally, we have used an inductive case study to develop a theory and further testing of our theory on a larger sample would be beneficial. Despite these limitations, we believe that our study contributes to the literature on FSC certification and beyond.

Appendix 1: The Context of the Study—FSC Certification

As a result of the 1992 UN Rio Earth Summit, Forest Principles for Forest Management were drafted. A number of groups, namely Friends of the Earth UK (FoE-UK), The Ecological Trading Company (ETC), The Woodworkers Alliance for Rainforest Protection (WARP), worked through series of working groups and pilot studies paving the way for the creation of Forestry Stewardship Council (FSC), FSC certification and FSC eco-label. The FSC Founding Assembly was held in Toronto in 1993 resulting in the Secretariat opening in Mexico in 1994; later moved to Bonn, Germany in 2003—its current location. FSC was set up as an Association—memberships are divided into three chambers, environmental, social and economic with fixed voting weights at 33.3 % each and there is also northern and southern sub chambers each with 50 % voting rights. This enables an open, participatory system, in which no one category could be suppressed and all chambers guaranteed a voice and vote. A General Assembly is held every few years to address changes in Principles and Criteria. Motions are proposed by one member, seconded by two and voted on by members. FSC Board of Directors is accountable to members; made up of nine elected representatives, 3 from each chamber for a 3 year term.

Forestry Stewardship Council (FSC) offers assurance to the supply chain and consumers that products under the FSC eco-label come from responsible sources. FSC is based on a system of performance-based measurements and forestry industry members are verified through independent third party audits. Certification is on two levels: certified sustainable forestry management (FM) and a certified chain of custody (CoC) system which tracks FSC-certified material from the forest along the supply chain to the consumer. As of August 2013, FSC has certified 182.022 million hectares and issued 26,773 certificates for CoC and

1209 FM certificates in 80 countries. 44 % of total certified area is in Europe and about 40 % in North America. The reader is encouraged to review two papers from the *Journal of Business Ethics:* paper by Schepers (2010) that provides more detailed overview of FSC and paper by Castka and Corbett (2014) that describes governance of FSC and other certifications.

Appendix 2: Interview Questions

– When certification was first achieved and what was the main driver?
– What was their FSC demand and where was that coming from?
– What changes to systems/operations were required and what cost was involved in becoming certified?
– What ongoing costs, operational improvements or changes were/are required to maintain certification?
– Had other labels or schemes had been considered?
– What were the key benefits and disadvantages, both tangible and non-tangible of belonging to the certification scheme?

References

Albuquerque, P., Bronnenberg, B. J., & Corbett, C. J. (2007). A spatiotemporal analysis of the global diffusion of ISO 9000 and ISO 14000 certification. *Management Science, 53*(3), 451–468.

Araujo, M., Kant, S., & Couto, L. (2009). Why Brazilian companies are certifying their forests? *Forest Policy and Economics, 11*(8), 579–585.

Aravind, D., & Christmann, P. (2011). Decoupling of standard implementation from certification: Does quality of ISO 14001 implementation affect facilities' environmental performance? *Business Ethics Quarterly, 21*(1), 73–102.

Balzarova, M. A., & Castka, P. (2012). Stakeholders' influence and contribution to social standards development: The case of multiple stakeholder approach to ISO 26000 development. *Journal of Business Ethics, 111*(2), 265–279.

Balzarova, M. A., Castka, P., Bamber, C. J., & Sharp, J. M. (2006). How organisational culture impacts on the implementation of ISO 14001:1996—A UK multiple-case view. *Journal of Manufacturing Technology Management, 17*(1), 89–103.

Barratt, M., Choi, T. Y., & Li, M. (2011). Qualitative case studies in operations management: Trends, research outcomes, and future research implications. *Journal of Operations Management, 29*(4), 329–342.

Blackman, A., & Rivera, J. (2011). Producer-level benefits of sustainability certification. *Conservation Biology, 25*(6), 1176–1185.

Boiral, O. (2003). ISO 9000: Outside the iron cage. *Organization Science, 14*(6), 720–737.

Brown, R., & Zhang, D. (2005). The Sustainable Forestry Initiative's impact on stumpage markets in the US South. *Canadian Journal of Forest Research, 35*(8), 2056–2064.

Carlsen, K., Hansen, C. P., & Lund, J. F. (2012). Factors affecting certification uptake—Perspectives from the timber industry in Ghana. *Forest Policy and Economics, 25*, 83–92.

Castka, P., & Balzarova, M. A. (2005). ISO management system standards and social responsibility connection: (Not quite) joined-up opinions of ISO's stakeholders. *Total Quality Management and Excellence, 33*(3), 119–124.

Castka, P., & Corbett, C. J. (2013). Is ISO the way to go? *Inside Supply Management, 24*(5), 34–37.

Castka, P., & Corbett, C. J. (2014). Governance of eco-labels: Expert opinion and media coverage. *Journal of Business Ethics,*. doi:10.1007/s10551-014-2474-3.

Castka, P., & Corbett, C. J. (2015). Management systems standards: Diffusion, impact and governance of ISO 9000, ISO 14000 and other standards. *Foundations and Trends in Technology and Operations Management, 7*(3–4), 161–378.

Castka, P., Prajogo, D., Sohal, A., & Young, A. C. L. (2015). Understanding firms' selection of their ISO 9000 third-party certifiers. *International Journal of Production Economics, 162*, 125–133.

Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly, 35*, 128–152.

Corbett, C. J. (2006). Global diffusion of ISO 9000 certification through supply chains. *Manufacturing & Service Operations Management, 8*(4), 330–350.

Corbett, C. J., Montes-Sancho, M. J., & Kirsch, D. A. (2005). The financial impact of ISO 9000 certification in the United States: An empirical analysis. *Management Science, 51*(7), 1046–1059.

Cubbage, F., Diaz, D., Yapura, P., & Dube, F. (2010). Impacts of forest management certification in Argentina and Chile. *Forest Policy and Economics, 12*(7), 497–504.

de Jong, P., Paulraj, A., & Blome, C. (2014). The financial impact of ISO 14001 certification: Top-line, bottom-line, or both? *Journal of Business Ethics, 119*, 1–19.

Delmas, M. (2007). An institutional perspective on the diffusion of international management standards: The case of the environmental management standard ISO 14001. *Business Ethics Quarterly, 21*, 1052–1081.

Delmas, M., Nairn-Birch, N., & Balzarova, M. A. (2013). Choosing the right eco-label for your product. *MIT Sloan Management Review, 54*(4), 10–12.

Deming, W. E. (2000). *Out of the crisis*. Cambridge: MIT Press.

DiMaggio, P., & Powell, W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review, 48*(2), 147–160.

Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review, 14*(4), 532–550.

Elad, C. (2001). Auditing and Governance in the forestry industry: Between protest and professionalism. *Critical Perspectives on Accounting, 12*(5), 647–671.

Gulbrandsen, L. (2005). Mark of sustainability? Challenges for fishery and forestry eco-labeling. *Environment: Science and Policy for Sustainable Development, 47*(5), 8–23.

Guler, I., Guillen, M. F., & MacPherson, J. M. (2002). Global competition, institutions, and the diffusion of organizational practices: The international spread of ISO 9000 quality certificates. *Administrative Science Quarterly, 47*(2), 207–232.

Hayes, R., Pisano, G., Upton, D., & Wheelwright, S. (2005). *Operations, strategy and technology. Pursuing the competitive edge*. Hoboken, NJ: Wiley.

Helms, W. S., Oliver, C., & Webb, K. (2012). Antecedents of settlement on a new institutional practice: Negotiations of the ISO 26000 standard on social responsibility. *Academy of Management Journal, 55*(5), 1120–1145.

Heras-Saizarbitoria, I., & Boiral, O. (2012). ISO 9001 and ISO 14001: Towards a Research Agenda on Management System Standards. *International Journal of Management Reviews, 15*(1), 47–65.

Heras-Saizarbitoria, I., Landín, G. A., & Molina-Azorín, J. F. (2011). Do drivers matter for the benefits of ISO 14001? *International Journal of Operations and Production Management, 31*(2), 192–216.

Ivanova, A., Gray, J., & Sinha, K. (2014). Towards unifying theory of management standard implementation: The case of ISO 9001/ISO 14001. *International Journal of Operations & Production Management, 34*(10), 1269–1306.

Johansson, J., & Lidestav, G. (2011). Can voluntary standards regulate forestry?—Assessing the environmental impacts of forest certification in Sweden. *Forest Policy and Economics, 13*(3), 191–198.

Karapetrovic, S., & Willborn, W. (2001). Audit and self-assessment in quality management: Comparison and compatibility. *Managerial Auditing Journal, 16*(6), 366–377.

Le Mare, A. (2008). The impact of fair trade on social and economic development: A review of the literature. *Geography Compass, 2*(6), 1922–1942.

Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology, 83*, 340–363.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis*. London: Sage.

Nag, R., Corley, K. G., & Gioia, D. A. (2007). The intersection of organizational identity, knowledge, and practice: Attempting strategic change via knowledge grafting. *Academy of Management Journal, 50*(4), 821–847.

Naveh, E., & Marcus, A. (2005). Achieving competitive advantage through implementing a replicable management standard: Installing and using ISO 9000. *Journal of Operations Management, 24*(1), 1–26.

Olson, M. (1971). *The logic of collective action: Public goods and the theory of groups*. Boston: Harvard University Press.

Overdevest, C. (2010). Comparing forest certification schemes: The case of ratcheting standards in the forest sector. *Socio-Economic Review, 8*(1), 47–76.

Overdevest, C., & Rickenbach, M. G. (2006). Forest certification and institutional governance: An empirical study of forest stewardship council certificate holders in the United States. *Forest Policy and Economics, 9*(1), 93–102.

Potts, J., Lynch, M., Wilkings, A., Huppé, G., Cunningham, M., & Voora, V. (2014). *The state of sustainability initiatives review 2014. Standards and the green economy*. International Institute for Sustainable Development (IISD) and the International Institute for Environment and Development (IIED).

Poyton, S. (2015). *Beyond Certification*. Oxford: Do Sustainability.

Prajogo, D. I. (2011). The roles of firms' motives in affecting the outcomes of ISO 9000 adoption. *International Journal of Operations & Production Management, 31*(1–2), 78–100.

Sandholtz, K. W. (2012). Making standards stick: A theory of coupled vs. decoupled compliance. *Organization Studies, 33*(5–6), 655–679.

Schepers, D. (2010). Challenges to legitimacy at the Forest Stewardship Council. *Journal of Business Ethics, 92*(2), 279–290.

Sroufe, R., & Curkovic, S. (2008). An examination of ISO 9000:2000 and supply chain quality assurance. *Journal of Operations Management, 26*(4), 503–520.

Su, H.-C., Dhanorkar, S., & Linderman, K. (2015). A competitive advantage from the implementation timing of ISO management standards. *Journal of Operations Management, 37*(7), 31–44.

Su, H.-C., Linderman, K., Schroeder, R. G., & Van de Ven, A. H. (2014). A comparative case study of sustaining quality as a competitive advantage. *Journal of Operations Management, 32*(7–8), 429–445.

SustainAbility. (2011). *Signed, sealed… delivered behind certifications and beyond labels*. London: SustainAbility.

Tamm Halström, K., & Boström, M. (2010). *Transnational multi-stakeholder standardization*. Cheltenham: Edward Elgar.

Yin, R. (1994). *Case study research*. London: Sage.

Zahra, S. A., & George, G. (2002). Absorptive capacity: A review, reconceptualization, and extension. *Academy of Management Review, 21*(2), 185–203.