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How Does Strategic Choice affect the Performance of Community Forest Enterprises?
A Study in the Cascadia Region

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Abstract

Proponents of decentralized forest governance make a compelling case that community forest enterprises (CFEs) can aid in sustainable and equitable utilization of forest resources. The effectiveness of CFEs is thus dependent on their ability to balance social, environmental, and financial performance. In this paper, we examine the relationship between a commonly recommended differentiation strategy and CFE effectiveness. Using data obtained through a survey administered on 51 CFEs located in the Cascadia region (British Columbia province of Canada; and Oregon and Washington states of the United States), we find that CFEs pursuing a differentiation strategy are able to balance social, environmental, and financial objectives. Further, recognizing that all CFEs cannot pursue a differentiation strategy, and some may not even have a defined strategic orientation, the paper compares social, environmental, and financial performance of CFEs pursuing a differentiation strategy, a hybrid strategy (a combination of differentiation and cost leadership strategy), and no defined strategy. This analysis reveals that CFEs pursuing a hybrid strategy deliver better financial performance than those with no defined strategy, but are similar to those pursuing a differentiation strategy.

Keywords

Community Forest Enterprises, Business Strategy, Competitiveness, Cost Leadership, Differentiation, Sustainability, Social Enterprises

1. Introduction

Community forestry is a useful approach to attain sustainable and equitable utilization of forest resources (Agrawal and Chhatre 2006; Erbaugh et al. 2020). Also known as social forestry (Glasmeier and Farrigan 2005), joint forest management (Kolavalli 1995) and community-based forest management (Molnar et al. 2011), community forestry entails involving local communities in decisions related to management and utilization of forests with an aim to advance values and economic interests of communities residing in and around those forests (Bullock & Hanna, 2012). As this decentralized model of forest governance is gaining prominence, so is the concern about making this model financially sustainable (Antinori & Bray, 2005). Community forest enterprises (CFEs) provide a promising solution to this concern. CFEs are social enterprises that employ community members in sustainably utilizing forest resources commercially and plough back profits to advance community interests (Siegener et al., 2021).

In Canada and the Western United States, CFEs focus on tapping wood product markets, albeit under varying institutional arrangements (Bullock et al., 2017). In the Canadian Province British Columbia, for example, the government provides explicit incentives for communities to initiate commercial activities utilizing community managed forestlands. The province launched the community forest agreement (CFA) program in the late 1990s as the first community forest policy in the country. One of the central mechanisms of the CFA program is that communities pay reduced royalties to the crown for timber harvested, thus making it particularly desirable, and feasible, to establish CFEs on community-managed forestlands. In contrast, in the Western United States, there is no official policy to facilitate the process on federally controlled forestlands, many of which have been designated as protected areas since the 1990s (Danks 2009; Davis et al. 2020).

Communities have therefore turned to forming new processes and groups to address their economic development needs. Often, this involves building renewed relationships with the Forest Service, which has resulted in the de-facto creation of CFEs, where organizational structures for the conduct of commercial timber harvest are established under coalitions of local communities, and regional higher-scale organizations and nonprofits (Abrams et al. 2015).

While CFEs can significantly contribute to sustainable forest management, and also advance local economic development and democratic resource stewardship, building and growing financially viable CFEs is a complex challenge (Ambrose et al., 2015; Siegner et al., 2021). To that end, practitioners and advocates of community forestry, including scholars, propose two prominent approaches that CFEs apply either jointly or separately. The first approach emphasizes organizational characteristics, such as structures and processes, that could facilitate advancing commercial objectives alongside community goals and values. In this case, a variety of organizational forms have emerged including Indigenous enterprises (Beaudoin et al. 2015; Nelson et al. 2019), forest cooperatives (Egunyu et al., 2016; Teitelbaum et al., 2006), limited partnerships (Mulkey and Kenneth 2012; Benner et al. 2014), municipal corporations (Pinkerton and Rutherford 2021), and nonprofit societies (Berkes and Hunt-Davidson 2010; Abrams et al. 2015).

The second approach seeks to improve management practices of CFEs with a focus on advancing plural goals in the community. Here, encouraging collaboration and promoting resource sharing with other local organizations are viewed essential for CFEs to improve their performance (Bullock et al., 2009; Furness & Nelson, 2012; Villavicencio Valdez et al., 2012). In this research, we explore a third potential approach by turning to the literature on competitive strategy (Porter 1980; Allen and Helms 2006) and examining whether competitive choices of CFEs are associated with their performance.

75   An examination of the relationship between competitive strategies and performance in for-
76   profit forest sector companies has yielded useful insights (Toppinen et al. 2013; Hansen et al.
77   2015). Examining this relationship in a CFE context may also generate knowledge that could help
78   in improving their performance. We execute this study using a sample of 51 CFEs in the Cascadia
79   region (British Columbia, Canada; Oregon and Washington, USA). This region is fertile for this
80   research because of an increasing push for collaborative forms of forest governance, and the
81   richness of data that can be gathered from CFEs located here (Davis et al., 2020; Teitelbaum, 2016).

82   In the remainder of this article, we first contextualize competitiveness and effectiveness in
83   a CFE context. Subsequently, we develop study hypotheses. Hypothesis testing is explained in the
84   following section titled methodology. We then present our results, discuss their implications, and
85   conclude this paper by summarizing its contribution and proposing a future research agenda.

86
87   **2. Background: Competitive Positioning in Community Forest Enterprises**

88   CFEs are unique business entities. They are well-suited to address sustainability concerns
89   in natural resource extraction and also the marginalization of forest-dependent communities
90   (Antinori and Bray 2005). However, growing and scaling up CFEs has since long been a
91   challenging task for a number of reasons (Macqueen, 2013; Sanchez-Badini et al., 2018). CFEs
92   operate as small businesses and generate much smaller revenues than average size forest sector
93   firms (Kozak 2009). As such, they are naturally vulnerable to the competition of forest companies
94   that operate at a greater capacity and with lower costs (Humphries et al., 2012). This is why CFEs
95   frequently struggle financially and rely on government agencies and nonprofit organizations for
96   financial support (Donovan et al. 2006; Vega and Keenan 2014).

As many of these agencies themselves lack adequate funds, it has been suggested that CFEs need to find ways of becoming more competitive (Ambrose et al. 2015; Cubbage et al. 2015). Yet, the ways in which CFEs should position themselves to compete in markets for forest products and services is not a straightforward matter. As a social enterprise model in the forest sector (Siegener et al., 2021), their primary motivation to trade in forest products and services is to promote resource stewardship and foster economic development among rural and Indigenous communities. As such, CFEs are considered to be effective to the extent they deliver a balance of social, environmental, and financial performance objectives (Antinori and Bray 2005).

Recognizing their distinct features – small size and goal plurality – the extant literature has put forward two main strategies for CFEs to achieve a higher degree of competitiveness. Either, CFEs should take a ‘growth orientation’ to overcome their liability of smallness (Antinori and Bray 2005; Kozak 2009), or they should develop a ‘niche-focused orientation’ and cater to niche markets and thereby eschew competing with larger firms (Molnar et al. 2008; Macqueen 2013). Proponents of the growth-focused strategic orientation argue that CFEs must look for ways to lower the costs of doing business, especially those related to production, and overcome scale disadvantages (Gomes-Casseres, 1997), for example, by seeking ‘strength in numbers’ and forming clusters with similar organizations engaged in the trade of wood products (Villavicencio-Valdez et al., 2012). While promising, in terms of the potential economic capacity of CFEs, adopting a growth-focused strategic orientation does not come without risks. For instance, a focus on growth may come at the expense of nimbleness, impede CFEs from quickly adapting to shifting demands of buyers and other changes in the marketplace (Gomes-Casseres, 1997).

Moreover, a focus on growth may also serve to undermine CFEs' founding values, specifically those related to local participation, decentralized decision-making (Hajjar et al., 2011), and the preservation of cultural and ecological values (Taylor 2010).

A niche-focused orientation, on the other hand, has the potential to better enable nimbleness and the ability to cater to the needs of multiple local constituents (Wiersum et al. 2013) by focusing on a diversity of higher value goods, such as value-added wood products, non-timber forest products (NTFPs), and/or ecosystem services, typically in the forms of recreational opportunities and carbon offsets (Macqueen 2013; Ambrose et al. 2015). This may require that CFEs invest in specialty and custom production facilities to efficiently manufacture their chosen product mixes. For example, a niche-focused orientation has allowed CFEs to appeal to niche markets of environmentally conscious consumers with the sale of environmentally certified wood products (Ambus et al. 2007; Kozak 2009). However, this example also provides a telling illustration of the competitive risks inherent in a niche-focused strategic orientation, in so much as niche markets can very quickly become propitious and vulnerable to the entry of larger firms (Aragón-Correa et al., 2008). Further, this orientation requires that employees and managers possess the entrepreneurial capacity to identify and retain niches (Ebben and Johnson 2005), which may be challenging for resource-constrained CFEs.

Notably, the extant descriptions of competitiveness characteristics of CFEs parallel the discourse in the strategic management literature, according to which, businesses can seek competitive advantage in a given market through two generic strategies: cost leadership and differentiation (Porter, 1980).

While the literature on CFEs illustrates both the potential and inherent risks of the growth and niche-focused orientations, with the former resembling elements of Porter's cost leadership generic strategy and the latter being akin to differentiation, they are limited to the study of individual cases, or small sets of CFEs in particular locales (Wiersum et al. 2013; Frey et al. 2019). Previous research, including anecdotal evidence, suggests that CFEs indeed do pursue growth and niche-focused strategies. Strikingly however, two prominent questions remain unanswered. One is whether the commonly recommended differentiation strategy is associated with higher effectiveness - i.e., better balance between social, environmental and financial performance. Second, because all CFEs cannot pursue a differentiation strategy, and some may not even have a defined strategic orientation, it is not clear whether a differentiation strategy, a hybrid strategy (a combination of differentiation and cost leadership strategy), or not having a defined strategy leads to differences in social, environmental, and financial performance. Below, we explore both.

3. Hypotheses Development

Theories on competitive advantage explain how and why organizations acquire superior performance compared to similar organizations within their specific industries. Building on seminal works from the mid-20th century (Chandler 1962; Ansoff 1965) competitive strategy has evolved to become a central concept in the business planning process (Hoskisson et al., 1999). Much of the work on the strategy-performance link in the business domain has focused on financial performance. However, the rise of social enterprises that emphasize social and environmental performance, beyond just profit, has prompted the need to consider a more nuanced link between strategy and performance (Haigh and Hoffman 2014).

In social enterprises – organizational forms that align with the CFE model (Siegnier et al., 2021) – efficiency gains and cost-cutting measures that reflect a cost leadership strategy do not advance community and sustainability objectives. It is often stressed that a differentiation strategy is more suitable for such plural goals (Austin et al., 2006; Weerawardena & Sullivan Mort, 2012). In addition, social enterprises possess certain resource advantages that allow them to naturally benefit from differentiation (Fosfuri et al., 2016). Specifically, a proactive pursuit of local partnerships and collaborations can help them build sustainability programs and also seek ethical certification of products and services (Lee and Jay 2015). A focus on differentiation aligns well with CFEs' attempt to provide additional benefits locally, particularly their attempt to address social needs in the community and their focus on engaging in higher environmental standards than the average forest business (Bliss & Kelly, 2008; Teitelbaum, 2014). Generating such local benefits is often untenable through a cost-focused strategy (Benner et al. 2014). In the context of the forest sector, for example, exploring markets for specialty wood products, NTFPs, or recreational services, can provide opportunities for CFEs to meet set ecological objectives in a way that also creates economic value (Ambus et al. 2007), whereas a low-cost strategy would not. Indeed, the localized character of CFEs might even be a strategic resource in and of itself (Rangone 1999) that allows them to reach a loyal customer base who values their focus on locally-produced goods. For example, if a CFE supplies timber to a local sawmill and builds synergies with actors in the local economy, the outcomes could potentially benefit the community as a whole, and also assuage a negative public attitude towards logging. In other words, the favorable image that CFEs confer as organizations that 'care for the land and the community' (Bliss and Kelly 2008) could lead to a wider acceptance of forestry practices in the eyes of the public.

Thus, we argue that CFEs pursuing a differentiation strategy will be able to effectively balance their social, environmental, and financial goals. Specifically, it is hypothesized:

H1. Pursuit of a differentiation strategy is associated with effectiveness (i.e., the ability to balance social, environmental, and financial goals)

A related question revolves around the effectiveness implications of the combination of differentiation and cost leadership strategies. Despite Porter's initial claims that superior outcomes eventually necessitate a clear choice between either cost leadership or differentiation, there is growing evidence that firms pursue hybrid strategies, reaping rewards from both premium prices and cost efficiencies (Gopalakrishna and Subramanian 2001; Pertusa-Ortega et al. 2009).

A key argument underlying Porter's claims in his early work was that firms cannot successfully pursue more than one strategy at a time. Doing so puts them in a position of being 'stuck in the middle', as cost leadership and differentiation strategies require distinct cultures, capabilities, and organizational structures (Parnell 2000). The strategy literature, however, has gradually shifted from this position, noting that today's reality is better responded to with strategy frameworks that capture the full variety of competitive strategies, including hybrid ones (Porter 1996; Salavou 2015). This observation also holds for mature industries (Pertusa-Ortega et al. 2009), including the forest sector (Toppinen et al. 2013; Hansen et al. 2015). And, popular concepts in contemporary theory, such as the 'ambidextrous organization', that seeks alignment in the sustained pursuit of dyads (Raisch and Birkinshaw 2008), suggest that organizations are more capable to pursue hybrid strategies than once thought (Salavou 2015).

Recent studies also emphasized that hybrid competitive strategies are explicitly called for in the growing number of social enterprises (Doherty et al., 2014). Battilana & Lee (2014) argue that a ‘commercial-social paradox’ lies at the core of what social enterprises seek to achieve, requiring them to conform with multiple institutions, cultures, and norms over a prolonged time period. Therefore, choice of one dominant strategy may ultimately hurt the legitimacy of social enterprises in front of their diverse constituencies. For example, a focus on cost leadership might be justified in the eyes of certain private funders and industry partners, but community and nonprofit partners of a social enterprise might have different expectations (Fosfuri et al. 2016).

Indeed, CFE-focused research holds that efforts to enhance technological efficiency is often accompanied by a simultaneous exploration of value-added opportunities (Ambus et al. 2007; Villavicencio Valdez et al. 2012). Past studies have found that the adoption of what could be considered ‘dominant practices’ in the industry, notably supplying nearby sawmills with timber, and selling logs for export (Pinkerton & Rutherford, 2021; Teitelbaum, 2014), does frequently go together with the exploration of markets for custom-wood products, non-timber service products, and/or ecosystem services, which are regarded as particularly promising in terms of a CFEs’ ability to deliver on its environmental and social objectives (Ambus et al. 2007; Gilani et al. 2016). Overall, we propose the following hypotheses:

- 229 H2a. CFEs that pursue a hybrid strategy have better social performance than CFEs pursuing
230 other strategies
- 231 H2b. CFEs that pursue a hybrid strategy have better environmental performance than CFEs
232 pursuing other strategies
- 233 H2c. CFEs that pursue a hybrid strategy have better financial performance than CFEs
234 pursuing other strategies

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4. Methodology

4.1. Sample frame

A quantitative survey design was employed to test the hypothesized relationships between CFE strategic choices and performance outcomes. Data collection took place over a four-month period, beginning in May 2019. An electronic survey was distributed to the managers of 89 CFEs located in the binational economic and ecological region known as “Cascadia” (British Columbia, Canada; and, Oregon and Washington, United States). The term “Cascadia” was coined to refer to the commonality and interdependence of economic and ecological interests in the stretch of land that runs from the US state of Oregon, along the Cascade Range, up to the Canadian Province British Columbia. It is distinguished by the temperate local rainforests of the Pacific Coast, vast watersheds, and diverse ecological zones in the interior. Trade in forest resources and other nature commodities is historically strong within this region, as is a shared identity that evolves around an awareness for the protection of its unique biodiversity (Sparke 2000). Binational alliances, trans-governmental organizations, and citizen alliances frequently shape tactics for dealing with environmental issues and strategies for ensuring the well-being and integrity of rural and Indigenous communities in Cascadia (Alper 1996). Amid this shared economic and environmental context, it is perhaps no surprise that an appetite for community forestry has fueled local forestry initiatives, resulting in a large of number of active CFEs in the region.

In 1998, the Province of British Columbia introduced legislation in support of community forestry, allowing for decentralized forest resource management at the level of local and Indigenous governments, as well as by community organizations (Ambus 2016). Over 60 CFEs have since been established throughout the province under a community forest tenure program.

In Oregon and Washington States in the U.S., community forestry initiatives, thus far, exist only informally, with civil society coalitions forming processes, groups, and organizations to re-orient forest management practices towards decentralization, sometimes in partnership with county and forest service authorities (Davis et al. 2020). This has resulted in the formation of a small, but growing, number of CFEs, where community stakeholders, in partnership with local forestry practitioners, create economic opportunities through the US Forest Service's system for selling timber and distributing service contracts (Abrams et al., 2015). Despite marked differences, both the Canadian and US based CFEs receive support from industry associations that provide training, business mentoring, and advocacy for established and emerging CFEs, including the BC Community Forest Association (BCCFA) in Canada and the Northwest Community Forestry Coalition in Oregon.

The BC sampling frame included CFEs identified through consulting a publicly available government list (dated January 10, 2019) of community forest agreement (CFA) holders (BC Government 2019), as well as web searches and, when necessary, phone calls to the organizations to verify commercial activities of CFA holders. We included only those CFEs that had been managing a working forest for a minimum of one year. This yielded a total of 61 CFEs in BC. The US CFE population data – given the absence of an official community forestry policy in Oregon and Washington states – was sought from a list published in a 2018 community forestry report commissioned by the Washington State legislature (DNR 2018). A list of CFEs in Oregon and Washington, administered by the Northwest Community Forest Coalition, served as additional source of information. Cross-comparison of both lists and verification of CFE status (i.e. commercial activities) yielded a total of 28 CFEs for the two US States combined.

279   The email addresses of the managers for all of the 89 identified CFEs (61 BC-based and
280 28 US-based) were obtained through web searches or phone calls to the organization.

281   The survey was designed using Qualtrix^{xm} software provided by a large Canadian
282 University and distributed under the auspices of “CFE Manager Survey” with the following e-mail
283 subject line: “Help us identify effective business strategies for CFEs”. Data collection followed
284 the general principles of the Tailored Design Method (Dillman et al., 2014), which included
285 sending a second and third wave of reminders to participate in the online survey (sent three weeks
286 after the first and second wave, respectively). Participants were given the option to participate in
287 the survey via telephone during follow-up rounds of survey invitations. A total of 55 questionnaires
288 were received (Figure 1) (Google Maps 2020)– 53 of which were completed online and two via
289 telephone – yielding a total response rate of 61.8%. The response rate for the US based CFEs
290 (41.0%) was lower than the BC sample, but still within the typical range of survey responses
291 (Dillman et al. 2014). One questionnaire was incomplete and three came from organizations that
292 indicated that they do not engage in any commercial activities, leaving a number of 51 usable
293 questionnaires that met the study criteria.

294   Nonresponse bias was tested by comparing early and late respondents (those that responded
295 in the first wave, versus those responding in the final, third wave), as recommended by Armstrong
296 & Overton (1977). Using a t-test, no statistically significant differences between the two groups
297 were found on any of the study constructs, namely competitive orientation and a three-dimensional
298 performance construct ($p > 0.05$). Hence, it can be concluded that there are no systematic
299 differences between respondents and non-respondents.

300
301   ----- Insert Figure 1 about here -----

4.2. Measures

Because of CFEs' comparatively small size, their performance was not assessed using readily available indicators typically used for large firms. Instead, a self-reporting instrument was developed, as recommended in previous studies (Wall et al. 2004). Self-reporting was also deemed appropriate based on recommendations by Dess and Robinson (1984), who note that the use of subjective measures lends itself well to the operationalization of broader, non-economic dimensions (p.271). Performance scale items were primarily extracted from the peer-reviewed literature to ensure content validity (Nunnally, 1994). First, we used Miles et al. (2014) scale, which uses six social performance and four financial performance items to assess performance of social enterprises, and has been shown to have construct validity (Bhattarai et al., 2019; Miles et al., 2014). To include items related to environmental performance in this scale, we developed six scale items by drawing from environmental indicators identified in the community forestry literature, such as "practicing environmental advocacy" and "championing sustainable forest stewardship" (Hajjar et al., 2011; Pagdee et al., 2006; Teitelbaum, 2014). In the end, the *performance* variable consisted of 16 items.

For the strategy variable, widely used scales that operationalize Porter's generic strategies (Dess and Davis 1984; Parnell 2000) were re-worded to capture key terminologies in used in the CFE context (e.g. value-added activities; sales of primary commodities). Cost leadership and differentiation strategies were assessed as two distinct dimensions of orientation, measured via separate scales, as opposed to two ends of a continuum. The intent here was to capture not only pure, but also integrated (hybrid) strategies (Bowman and Ambrosini 1997). In the end, the variable *strategic orientation*, consisted of eight items (four each for cost leadership and differentiation strategies).

In addition, information on organizational demographics (e.g. CFE age, size, and organizational structure) was sought using categorical and open-ended question formats, such as “under what legal form does your organization operate under?” or “what is the age of the organization in years”.

A number of steps were taken to minimize survey bias and increase response rate. The survey instrument was pre-tested through an internal expert review (Presser and Blair 1994). This step resulted in minor revisions for improved readability. Social desirability bias, which can be an issue in organizations focused on demonstrating community and environmental responsiveness (Liu et al. 2014), was minimized by asking CFE managers to rate performance during a certain time period in their own organization, rather than asking them to compare their organization with others (Dess and Robinson 1984; Bowman and Ambrosini 1997). Use of five-point response scales for the main constructs offered the opportunity to participants to express a neutral response, rather than being forced to respond positively or negatively (Nadler et al., 2015). Harman’s single factor test on the main study constructs, namely CFE performance and strategic orientation variables (Podsakoff et al. 2003) was used to assess the presence of common method bias. It showed that no single factor explained more than 50% of variance, showing that common method variance is a minimal concern in this study (Fuller et al., 2016).

4.3 Analysis

Statistical analysis were performed using SPSS 26.0 software. A Pearson correlation matrix is provided in Table 1, including the means for three performance dimensions (social, environmental, and financial) and strategic orientation (cost leadership and differentiation).

Reliability analysis was conducted with a Cronbach's alpha test. All values are in acceptable range although the alpha value for cost leadership is on the lower side (Table 2).

----- insert Table 1 about here -----

----- insert Table 2 about here -----

To prepare for hypothesis testing, we first clustered CFEs based on their performance and strategy scores (Table 3). K-means clustering algorithm was used, which groups participants based on response patterns such that variance within groups is minimized while the between-group variance is maximized (Aldenderfer and Blashfield 1984). This allowed for parsimony of the multidimensional dataset by identifying 'organizational configurations' (Ketchen and Shook 1996), sets of CFEs that share common profiles along their respective performance and strategic orientation dimensions.

----- insert Table 3 about here -----

A three-cluster solution was derived for both CFE performance and competitive orientation variables by comparing the iteration histories and F-values with two and four cluster solutions respectively (Ketchen and Shook 1996). Separately conducted ANOVAs, with cluster solutions as the factor, further confirmed number of clusters using Tukey post hoc test (Ketchen and Shook 1996).

For the performance variable, the three clusters emerged as follows. The first cluster comprised CFEs that scored high on all three – i.e., - financial, social, and environmental dimensions. We label them *effective performers* because they are able to balance their plural goals better than others. The second cluster group comprised CFEs with high financial performance but moderate to low social and environmental performance. We labeled them *skewed performers*. The third cluster consisted of CFEs that scored low on all three performance dimensions and so we labeled them *low performers*. For the strategic orientation variable, the first cluster comprised CFEs that score high on differentiation but low on cost leadership and so we label them *pure differentiators*. The second cluster comprised CFEs that have high score on cost leadership and differentiation and hence we labeled them *hybrid strategists*. Lastly, the third cluster had it in it CFEs that score low on both differentiation and cost leadership, which we labeled *irresolutes* since they really do not have a strategic thrust. Table 4 summarizes the CFE groups along a few key characteristics. Hypothesis 1 was tested using Fisher’s exact test for small sample sizes; Hypotheses 2a, 2b, and 2c were tested using an ANOVA test in conjunction with a Scheffe post-hoc test.

----- insert Table 4 about here -----

5.0 Results and discussion

The results of Fisher’s Exact test (Table 5) show that the largest number of *pure differentiators* are *effective performers* ($p=0.013^*$), lending support for the hypothesis 1. In testing for the set of hypothesis 2, the results of ANOVA (Table 6) show that H2a and H2b were not supported ($p > 0.10$). With respect to H2 (c), results show partial support. CFEs with a hybrid strategy perform better only to *irresolutes* but perform similar to CFEs that are *pure differentiators*.

393

394 ----- insert Table 5 about here -----

395

396 ----- insert Table 6 about here -----

397

398 The support for H1 reinforces anecdotal observations that differentiation is associated with
399 effectiveness for CFEs to deliver on their plural social, environmental, and financial performance
400 objectives. In fact, these results are also consistent with studies on non-CFE, small forest sector
401 firms (Panwar et al. 2016), suggesting that in a highly consolidated marketplace that is dominated
402 by large corporations, a niche-focused differentiation strategy is a useful way to overcome the
403 liability of smallness.

404 How does this happen though? While our dataset does not allow us to offer a definitive
405 answer, we speculate that differentiation focused CFEs, over time, develop distinct organizational
406 cultures and develop innovative partnerships (Egunyu et al., 2016; Humphries & Kainer, 2006)
407 that allow them to effectively pursue social, environmental, and financial performance. It is
408 possible that through these activities, CFEs discover insights and practices that grant them
409 legitimacy in front of diverse stakeholders in industry, community organizing, and resource
410 conservation. In this sense, we suggest that a focus on pure differentiation in CFEs provides the
411 organization with innovation insights and novel partnerships that inspire them to improve their
412 social and environmental performance (Lee and Jay 2015), which then provides further
413 opportunities to explore differentiation practices, thus leading to a virtual cycle of enhanced
414 effectiveness in balancing plural sustainability objectives.

However, the number of CFEs in the pure differentiators group is comparatively small. Pursuing pure differentiation is highly challenging and also time intensive. It requires significant support by funders and partners, as well as dedicated leadership in the community (Ambus et al. 2007; Gilani et al. 2016), which explains the small number of organizations (N=10) in our sample that master this approach. Our findings seem to support the notion that large-scale uptake of differentiation in CFEs may not be possible. By definition, only so many CFEs can pursue a niche-oriented differentiation strategy.

In fact, this was the reason behind our testing the performance implications of hybrid strategy. We are surprised with the finding that performance implications of the CFEs that classified as *hybrid strategists* are the same as those of *pure differentiators*, and better than those that classified as *irresolutes* for only financial performance, but not social and environmental performance. We can offer two possible explanations for it. One, CFEs pursuing a hybrid strategy orientation lean more heavily toward cost leadership than differentiation, which explains the results in terms of financial performance. The leaning toward cost leadership is quite common in the forest sector generally (Toppinen et al. 2013; Hansen et al. 2015). But it can be especially pronounced in a CFE context in Cascadia, where a declining forest sector, closure of mills, and rates of unemployment created a somewhat vulnerable business environment for CFEs, one in which tightening the belt through a low cost leadership strategy is ingrained in their very nature. An inherent leaning toward cost leadership, even when a CFE might be pursuing a hybrid strategy, may prevent the unique performance advantages associated with a creative hybridity, leaving the CFE in a sort of lurch that Porter (1980) referred to when cautioning against being stuck in the middle. In this sense, what we can infer from our results is that even when the pursuit of hybrid strategy may be desirable as a broad notion, in specific situations it may manifest in undesirable

ways, leading to lower than expected performance outcomes (Benner et al. 2014; Pinkerton and Rutherford 2021). Another possible reason for why we did not find support for our predicted relationship could be that balancing inherently inconsistent demands of a cost leadership and differentiation strategy may create tensions for CFEs that consume its managers' energies, require careful reconciliation, and, in the end, may lead to separation of plural goals, much alike what Siegner and colleagues (2018) find in the context of social enterprises in other sectors. It is not unlikely that leveraging the strengths of hybrid strategies requires managerial sophistication that CFEs typically lack (Macqueen 2013).

Besides the results of our predicted hypotheses, the study shows that relatively fewer CFEs pursue a pure differentiation strategy. This aversion to differentiation necessitates targeted intervention that may include, for example, (re)training of people and sensitizing them to the long term benefits of a differentiation strategy. Overall though, our key finding is that a pure differentiation is indeed associated with an effective balancing of social, environmental, and financial performance; but when CFEs cannot pursue a differentiation strategy, a hybrid strategy can be the second-best option that would at least result in positive financial outcomes. Not having a strategy is, unsurprisingly, an undesirable situation.

6.0 Limitations and future research

The reach of our results is restricted by a number of limitations. First, our sample, despite covering a substantive amount of CFEs in the study region, is small, compared to strategy studies with different types of organizations, and in other sectors. Similarly, generalization beyond the Cascadia region warrants caution, as historical, economic, and institutional context of community forestry vary greatly around the world.

During data collection, we carefully considered the potential for common-method bias, mixing up question formats to avoid respondent fatigue, and avoiding question formats that would provoke social desirability (e.g. asking CFEs to compare their performance with those of competitors). However, method effects produced by a common source of rater remain a concern. Finally, our results are not produced obtaining time series data, limiting the potential for temporal generalization.

As an initial foray investigating effectiveness implications of the choice of competitive strategy in CFEs, we set the stage for development of future research. In addition to ameliorating the above mentioned limitations of this study, future studies must examine the boundary effects of both firm and environment-level factors on the strategy–effectiveness relationship in CFEs. Follow-up, in-depth qualitative studies may investigate whether CFEs’ choice of a particular strategy is deliberate or not. Such in-depth studies may also reveal why CFEs tend to rely on a cost leadership strategy despite an increased policy emphasis, and general support for the idea of innovation and differentiation in community forestry practices. Future studies may also more closely examine the product choice, human resource practices, and overall leadership styles in CFEs and how they potentially affect the choice of pure strategies, or hybrid strategies, as well as having no strategic thrust. Again, qualitative, in-depth research, might present a valuable path to undertake such studies.

7.0 Conclusion

Community forestry is a useful approach to attain sustainable and equitable utilization of forest resources. Policymakers and communities look at these development closely, and there is a generalized sentiment that community forests, and the CFEs linked to these initiatives, should flourish. Previous attempts to facilitate growth in CFEs have focused on legal structures and management capabilities. Our attempt is different. We examine whether adopting particular strategic orientations could aid their growth and scaling up. Indeed, the answer is yes. Differentiation strategy fosters balanced performance, but as discussed, all CFEs are not well placed to pursue this path. Perhaps, large scale alliances and collaborations can open avenues for those which cannot afford differentiation. We hope that this work will stimulate future research on strategic orientation of CFEs. Tomorrow's successful CFEs should start exploring strategic directions today.

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Figure 1. Locations of survey participants; Markers represent the geographic location of participants' IP addresses at the time they completed the survey and may not represent the locations of the CFEs themselves (Google Maps 2020)

(Reference: **Also provided in Main Manuscript**)

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Table 1. Descriptive statistics and Pearson correlations for observed variables (N=51)

	Mean	SD	1.	2.	3.	4.	5.
1. Social Performance	4.15	.48	1.00				
2. Environmental Performance	4.16	.53	.676**	1.00			
3. Financial Performance	4.21	.74	.451**	.264	1.00		
4. Cost Leadership	3.52	.63	.139	.038	.046**	1.00	
5. Differentiation	3.37	.68	.068	.036	.032*	.068	1.00
*Correlation is significant at the 0.05 level ** Correlation is significant at the 0.01 level							

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Table 2. Means and standard deviations for study items and reliability coefficients for constructs

	Mean	SD	Item total correlation	Alpha if item deleted
<i>Social Performance^a (Cronbach's alpha = 0.76)</i>				
Community satisfaction with social performance	3.98	.68	.43	.75
Socially sustainable operations	4.35	.52	.60	.71
Advocacy for community needs	4.46	.64	.30	.78
Mobilizing interest for social benefits of community forests	4.04	.74	.54	.72
Meeting objectives for local needs served	4.08	.71	.65	.69
Perception as organization driven by social change	4.02	.86	.59	.71
<i>Environ. Performance^a (Cronbach's alpha = 0.82)</i>				
Community satisfaction with environmental performance	3.84	.64	.56	.81
Environmentally sustainable operations	4.35	.71	.61	.80
Advocacy for sustainable forestry	4.51	.64	.54	.81
Mobilizing interest for enviro. benefits of community forests	3.96	.82	.58	.81
Meeting environmental objectives	4.20	.69	.66	.79
Perception as sustainability champion	4.08	.64	.68	.79
<i>Financial Performance^a (Cronbach's alpha=0.82)</i>				
Effectively generating funds to support local benefits	4.24	.95	.57	.81
Increasing effectiveness	4.18	.88	.75	.72
Improving financial situation	4.27	.82	.70	.75
Financially sustainable organization	4.16	1.00	.58	.80
<i>Cost Leadership (Cronbach's alpha=0.54)</i>				
Focusing sales of primary commodities (e.g. logs)	3.86	1.28	.27	.56
Cost-cutting pressure	2.57	.85	.22	.55
Emphasizing competitiveness of prices in sales	3.67	1.01	.45	.36
Working on improving efficiency	4.00	.66	.48	.40
<i>Differentiation (Cronbach's alpha=0.69)</i>				
Focusing charging extra premium	3.08	1.03	.50	.61
Exploring value-added products and services	3.35	.97	.44	.65
Emphasizing community forestry aspect in sales	3.67	.89	.30	.72
Offering superior products and services	3.39	.90	.69	.45
^a 1 to 5 scale capturing strong disagreement to strong agreement				

Table 3. Groups of responding CFEs and their performance and strategy profiles

Performance Type	Mean Social Performance	Mean Environmental Performance	Mean Financial Performance
Effective Performers	4.53	4.51	4.64
Skewed Performers	3.91	3.79	4.32
Low Performers	3.75	4.00	3.03
Strategy Type	Mean Cost Leadership	Mean Differentiation	
Pure Differentiators	2.83	4.13	
Hybrid Strategists	4.02	3.53	
Irresolutes	3.07	2.54	

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Table 4. Characteristics of CFE groups

CFE Groups/Characteristics	Effective Performers	Skewed Performers	Low Performers
Average CFE Age (years)	17.0	18.0	12.0
Average Community Forest Size (ha)	22,000	31,200	37,000
Organization Form (N)			
<i>Nonprofit Society</i>	2	5	4
<i>Indigenous Enterprise</i>	1	3	0
<i>Cooperative</i>	2	0	0
<i>Limited. Partnership</i>	5	2	1
<i>Municipal Corporation</i>	8	13	5

Table 5. Fisher's Exact Test of CFE Strategy versus performance clusters

	Effective Performers	Skewed Performers	Low Performers	Fisher's Exact (2-sided)
				0.013*
Pure Differentiators	5	3	2	10
Hybrid Strategists	14	12	1	27
Irresolutes	4	3	7	14
N	18	23	10	51

Table 6. Mean performance of CFEs and differences among strategy types

	Mean performance	Significance level
Hypothesis 2a: CFEs that pursue a hybrid strategy have better social performance than CFEs pursuing other strategies		
Pure Differentiators	4.23	
Hybrid Strategists	4.24	.773
Irresolutes	3.94	
Hybrid Strategists	4.24	.504
Hypothesis 2b: CFEs that pursue a hybrid strategy have better environmental performance than CFEs pursuing other strategies		
Pure Differentiators	4.10	
Hybrid Strategists	4.24	.999
Irresolutes	4.03	
Hybrid Strategists	4.24	.159
Hypothesis 2c: CFEs that pursue a hybrid strategy have better financial performance than CFEs pursuing other strategies		
Pure Differentiators	4.22	
Hybrid Strategists	4.51	.474
Irresolutes	3.61	
Hybrid Strategists	4.51	.000*
F-Values: 2.08 (Social Performance); 0.77 Environ. Performance; 9.25 (Financial Performance) ANOVAs with Scheffé post hoc test *Correlation is significant at the 0.01 level		