

BARRIERS AND DRIVERS TO SUSTAINABILITY FOR SMALL TO MEDIUM SIZED
BUSINESSES IN THE VALUE ADDED WOOD SECTOR

by

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Abstract

There is currently very limited research on how firms incorporate sustainability into their business strategies and practices in the secondary wood industry. There is equally limited research on how small to medium sized enterprises (SMEs) approach sustainability; most of the research on sustainability in business attempts to paint an overall picture of issues for large multinational enterprises (MNEs), failing to recognize issues related to SMEs. The research generalizes how large firms define and implement sustainability and Corporate Social Responsibility (CSR) strategies without taking into account that an SME may not respond in the same way. One of the research needs is to understand how SMEs more generally define sustainability and the barriers and drivers for sustainability. One important research outcome from investigating sustainability in the secondary wood industry is more understanding of how SMEs respond to sustainability and tools and strategies for sustainability in this important business sector. This research is a survey-based project looking at barriers and drivers to sustainability in small to medium sized businesses in the value-added wood sector in Canada. Results indicated that the barriers and drivers for SMEs are similar to those for MNEs and are consistent with much of the literature. The top drivers for this sector were: mission of the company, environmental concern, competitive advantage and vision of the founder and the top barriers were cost, and time. The least important barrier was no known business benefit suggesting that SMEs have begun to understand the value of implement responsible business practices. Results suggest that further research be conducted in this field to gain a better understanding on how to help SMEs implement more sustainable business practices. The findings in this study also suggest ways in which to better survey the SME sector in the future.

Preface

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Dedication

I would like to dedicate this thesis to my loving parents who have supported me throughout this entire process. I love you both very much and would not be where I am today without your constant love and support.

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1 Introduction

There is currently very limited research on how firms incorporate sustainability into their business strategies and practices in the secondary wood industry. There is equally limited research on how small to medium sized enterprises (SMEs) approach sustainability; most of the research on sustainability in business attempts to paint an overall picture of issues for large multinational enterprises (MNEs), failing to recognize issues related to SMEs (Revell, Stokes, & Chen, 2010). The research generalizes how large firms define and implement sustainability and Corporate Social Responsibility (CSR) strategies without taking into account that an SME may not respond in the same way. One of the research needs is to understand how SMEs more generally define sustainability and the barriers and drivers for sustainability. One important research outcome from investigating sustainability in the secondary wood industry is more understanding of how SMEs respond to sustainability and tools and strategies for sustainability in this important business sector.

Sustainability, as a concept describing social, economic and environmental responsibility, has been a frequently discussed term over the past two decades. It has generated multiple definitions and some confusion as to the exact definition, as large multinational enterprises (MNEs) and small to medium sized businesses (SMEs) each interpret it based on the context within which they operate, the size of company, and the influence of stakeholders among other factors. Furthermore, the idea is further muddled by related concepts such as Corporate Responsibility and Corporate Social Responsibility that all draw to various degrees on some aspect of enhancing sustainability within the firm. However at its core, sustainability draws on three main concepts: economic, social and environmental sustainability, and ultimately all firms have to identify how sustainability will apply to their corporate actions, whether it is for implementing strategies, external reporting, or modifying or adopting business practices. It is this link between the various concepts, how they are then defined and framed from the business perspective, and how sustainability is turned into an operational practice that is the focus of this thesis.

This research project will explore how SMEs, within the secondary wood manufacturing industry, define sustainability, what they view as their subsequent corporate responsibility activities, and what factors affect their willingness to adopt more sustainable business practices. The ultimate goal of this research project is to develop a framework and survey tool that can be

used to assess the barriers and drivers to sustainability within small to medium sized businesses (SME) in the Canadian secondary wood manufacturing industry¹.

¹ Secondary wood industry and value added wood sector will be used interchangeably within this document.

2 Literature review

2.1 Introducing the concept of sustainability

The term sustainability is most commonly known by the Brundtland report released in 1987. The report loosely defined the term, explaining sustainable development as “meeting the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987). This came to be the most referred to modern definition of sustainability. Since 1987, the use of the term has been actively debated due to the vagueness of its original definition (Dahlsrud, 2008). Based on the literature, it is apparent that society has come to understand sustainability as an environmental issue (King & Lenox, 2001; Klassen & Whybark, 1999; Lawrence, Collins, Pavlovich, & Arunachalam, 2006; Sharma & Henriques, 2005). However, some literature has started to outline a trend toward a more inclusive definition of the term, one in which the environment, society and economics are more equally valued (Dahlsrud, 2008).

2.1.1 Defining sustainability

One important aspect of sustainability is the growing expectation that a corporation bears a responsibility towards consistently improving upon its Corporate Responsibility (CR) activities. Businesses have responded to increased public demands for sustainability through a number of different ways, including reporting on their actions and modifying practices among other activities. The term Corporate Responsibility (CR) has been used to describe a company that is being responsible to society and the environment, which is oftentimes used interchangeably with Corporate Social Responsibility (CSR). Most often, the term Corporate Responsibility will be used to describe a company that has taken into account social, environmental and economic responsibility in its business strategy. Based on the literature, many have used the term CR and CSR interchangeably (Dahlsrud, 2008).

At first glance, the literature seems to have some difficulty in defining what is meant by sustainability, but when broken down into parts, it is apparent that the confusion around the definition stems from the way in which people explain the term, thus suggesting that companies, industry, academics and the general public have a different interpretation of the word sustainability. Each group is trying to describe how a company has begun to account for a wide

range of considerations around sustainability. Rather than simply focusing on their bottom line, the environment or society, companies are now trying to find a realistic balance between social, environmental and economic responsibility. This balancing act can be classified in many different ways, thus leading to the debate around how to define sustainability.

In one of the few defining studies of sustainability², Dahlsrud (2008) has for the first time compared all the previous definitions of sustainability (37 in total) to conclude that there are five themes that define sustainability (Dahlsrud, 2008). This study was a two-pronged approach to understanding how people define the term sustainability. Dahlsrud (2008) firstly conducted a thorough literature review and found five dimensions of CSR: social, environment, stakeholder, voluntariness and economic. Social encompassed anything that pertained to society such as employee relations, workplace safety, or community relations; environment focused on environmental issues such as emissions, waste management, energy conservation and alternative energy; stakeholder was used in definitions where the term stakeholder was employed, or where the definition had a focus on inclusion of stakeholders; voluntariness sums up definitions that used terms to describe how sustainability was a voluntary strategy or where the company defined sustainability as going above and beyond their legal or regulatory obligations; and lastly economic encompassed any definition that included a focus on the company's economic sustainability (Côté, Booth, & Louis, 2006; Dahlsrud, 2008; Lawrence et al., 2006). After this initial step, Dahlsrud (2008) did a frequency count from Google of all definitions referring to each one of the five dimensions. This allowed him to conclude that there were three important facets to sustainability: social, environmental and stakeholder, which also includes economic responsibility.

As noted above, the stakeholder is an important component in the definition of sustainability. The term tends to take on a different meaning when speaking to various stakeholder groups such as the government, business, and civil society, including non-governmental organizations (NGOs). Each stakeholder group views sustainability differently based on its interests, for example, environmentally focused NGOs such as Greenpeace focus more on environmental issues than, for instance, Oxfam who would be more interested in social issues. Other stakeholders include those with an economic interest in the firm; these include shareholders, employees and the community, as well as customers and suppliers. Economic,

² This is the only study that used this particular methodology to define sustainability.

social and environmental sustainability are weighed differently in each group, thus as the influence of different stakeholder groups changes so too their influence on how the firm interprets its CR activities.

Given that these 37 definitions were analyzed in 2006, and the way in which sustainability is evolving, it is very plausible that the importance of each dimension has changed in the past five years. The five dimensions are likely still present in the majority of definitions; the changes could be (1) the addition of new characteristics fuelled by responsible investing and reporting, (2) the increased specificity for different dimensions, (3) the increased blending of these five dimensions. (Industry Canada, 2009) and lastly (4) the recognition by companies that it is good to appear to be sustainable as a way to provide long-term profitability (enlightened self interest) (Carroll and Shabana, 2010).

In my thesis, I distinguish between sustainability and CR where sustainability is a target, and CR describes how firms interpret, define, and implement sustainability. Because sustainability is changing over time, the target and hence the exact definition keeps changing. However companies need to define what it means at a particular point in time in order to implement any kind of corporate actions. Based on the literature, I will look at how firms defined their CR using the three dimensions of sustainability: social, environmental and economic.

2.1.1.1 Influence from CR reporting and ethical investing

As a means to satisfy stakeholders and measure performance, companies have begun to adopt yearly reporting practices. These Corporate Responsibility (CR) reports can influence how companies characterize sustainability as they provide benchmarks and contribute to establishing norms on how sustainability is expressed from a business perspective.

When companies produce a CR report they often use tools from the Global Reporting Initiative (GRI) and International Standards Organization (ISO) to create their reports. The GRI is a network-based organization that provides a reporting framework for companies around the world. This framework was created with input from a multi-stakeholder group of academics, civil society, labour, business and professional institutions. The G3.1 guidelines, the most recent framework released in March 2011, focus on the reporting of six categories: environmental, human rights, labour practices and decent work, society, product responsibility, and economic (Global Reporting Initiative (GRI), 2011a) . Each category has a list of criteria that companies

must comply with in order to be able to check off having completed that particular initiative. For example, within the environment category, there are standards for materials, energy, water, biodiversity, emissions, effluents and waste, products and services, compliance, transport and finally a section for overall expenditure on environmental initiatives. Each list is fairly extensive and broken down into subsections for companies to be able to clearly decide which initiatives are important to their company, thus influencing how the company defines sustainability for their organizational needs (GRI, 2011a).

Companies have the ability to choose how many criteria they would like to comply with in order to achieve a particular rating from the GRI. The scale ranges from a C grade to an A+ grade, which is determined based on how many criteria each company can complete in their CR reports and whether the report has been certified. The more criteria that companies can complete, the better grade they will receive. The GRI also provide a sector-specific section where companies from sectors such as automotive, mining and metals, oil and gas, telecommunications, NGOs and many others have the opportunity to gain practical tools for reporting about their specific sector.

The process of reporting using GRI began in 1997, when the GRI put out its first set of criteria on how to report on sustainability (GRI, 2011a). Now, 14 years later, most large MNEs report their progress and goals for sustainability in a yearly corporate responsibility reports. In the 2008 KPMG report on corporate responsibility reporting, 80% of the 250 largest global companies were reporting on their CR activities. More than three quarters of this group of 250 companies use the GRI as their reporting guideline (KPMG, 2008) The GRI has also begun to create useful tools for their SME members or any smaller organization with access to the web. In the past, the absence of guidelines specifically designed for SMEs, as well as limited financial resources (Borga, Citterio, Noci, & Pizzurno, 2009) have been a barrier to reporting for SMEs. The GRI offers free templates, as well as other resources such as training and examples of projects and reports to any SME willing to adopt CR reporting using the GRI (GRI, 2011b).

The International Organization for Standardization (ISO) is also a standards organization that offers management and leadership standards that are used for both certification and guidance to managers. ISO 9001 and ISO 14001 are management standards used for certification (ISO, 2011a). ISO 9001 is a set of standardized requirements for a quality management system. It essentially ensures that companies are using a system that will always provide a satisfactory

customer experience. ISO 14001 is a standard for environmental management. When the standard was released in 2004, 200,000 companies in 55 countries adopted ISO 14001 to standardize their environmental management systems (EMS), making ISO 14001 a well-known standard for EMS (ISO, 2011b). In order to gain certification a company must be reviewed by a third party certification organization.

The most recent ISO standard is the ISO 26000 standard for social responsibility, which is not meant for certification but rather as a guideline for how businesses should implement a system for social responsibility. The ISO states that this standard should be used as a management guideline for all three pillars of sustainability, taking into account seven important core subjects of social responsibility: community involvement, human rights, labour practices, consumer issues, the environment and fair operating practices. This type of widely accepted certification body will clearly influence how a company defines sustainability. A statement on their website outlines that social responsibility is a multi-stakeholder issue:

“In applying ISO 26000, it is advisable that an organization take into consideration societal, environmental, legal, cultural, political and organizational diversity, as well as differences in economic conditions, while being consistent with international norms of behaviour”(ISO, 2011c).

One driver in CR reporting is the desire to have universally comparable standards for companies. Companies who operate on a global scale want to have standards that will allow them to benchmark their progress in comparison to their global counterparts and global competitors. This need for a standardized set of reporting criteria allows for consistency and comparability across sectors and regions.

Another influence promoting CR reporting is the trend in ethical investing, the notion of investing in portfolios with companies who are ranked based on environmental, social and governance (ESG) criteria. This generates yet another set of criteria by which firms can be evaluated, where companies are ranked based on ESG performance criteria in order to determine if they are considered an ethical investment (Keefe, 2007) One difference between these criteria and more general CSR criteria are the governance criteria, which focus more on corporate structure and governance, including shareholder rights, transparency and legal requirements. The term ESG was introduced in 2006 after a collaborative effort between the United Nations and the world's largest institutional investors (20 institutional investors from 12 countries) to

create the UN Principles for Responsible Investing (UNPRI) (2010). It was an attempt at defining sustainability in a universal manner so that companies would be able to rank themselves based on a particular set of criteria. The UNPRI was developed by, and for the investment community, because they believe that environmental, social, and governance issues will have an impact on an investors' ability to fulfil its fiduciary duty.³ In 2010, over 800 companies, in 45 countries, had signed on to the Principles for Responsible Investing (PRI) and used ESG criteria to rate investment options (UNPRI, 2010).

ESG, GRI and ISO criteria can all shape and contribute to how a firm defines sustainability in relation to its business. This definition will, however, still be influenced by sector specific associations that have their own criteria for how they define sustainability and the value each of these sectors place on the pillars of sustainability. Various sector specific reporting standards have influenced the general definition of the term, but this influence is mainly felt within the individual sector. Corporate Responsibility begins to take shape as sustainability indicators become utilized in yearly CSR reports and communication materials. Companies begin to align their goals with the specific sustainability criteria with which they use to create their yearly sustainability reports. Indicators that are easier to achieve or that are in high demand from stakeholders will shape how a company defines sustainability.

The UNPRI, ISO, third party consulting firms and other agencies that evaluate and monitor indicators (including NGOs) also play a role, as companies will face demand for reporting on indicators that they may not otherwise select; in this way they can become indirect influences or stakeholders in how the firms ends up operationalizing CR, as the firm also has an interest in complying with as many indicators in order to be viewed as a responsible business. Again these indicators and stakeholders will differ between sectors as well as between companies. The following section will discuss issues related to CR within different sectors and how different stakeholders; such as industry associations can affect how businesses define sustainability.

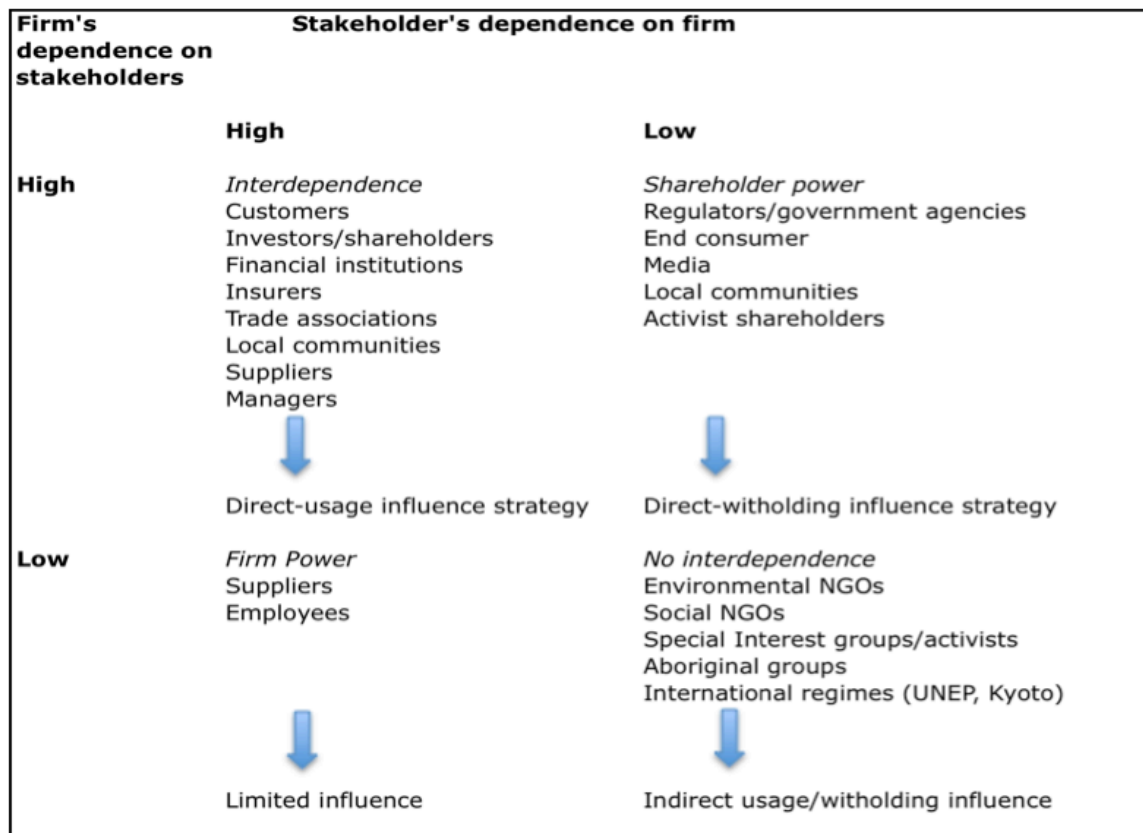
³ The impact of environmental, social and governance issues have been a risk to the value of a company's stock and therefore impacts the investment community.

2.1.1.2 Influence from stakeholders

Key stakeholders for SMEs are their employees, customers and suppliers, shareholders, and the community (Jenkins, 2006). As previously mentioned in the definition section, stakeholders have an impact on what activities a business decides to conduct in order to become more sustainable. The type of stakeholders can change between companies and sectors, but some that remain consistent are employees, the community and the shareholders or the board/investors (Castka, Balzarova, Bamber, & Sharp, 2004; Jenkins, 2009; Lawrence et al., 2006).

The stakeholders who will ultimately have the greatest influence on a company will be the ones with the most direct impact on the firm (Frooman, 1999; Sharma & Henriques, 2005). Figure 1 outlines the basic four-quadrant stakeholder influence framework suggested by Sharma and Enriques (2005, p. 162).

Figure 1 – Resource dependence between firm and stakeholders



Stakeholder influence is common within both MNEs and SMEs, even the SME that is owned by a single person will be impacted by its stakeholders. Most often, MNEs have a communication department to mitigate some of the risk associated with stakeholder issues whereas SMEs do not have the same kinds of resources to help alleviate the risks associated with improper management of stakeholder relations. Secondly, their customers who can be large organizations, and often times MNEs, require certain sustainability objectives or certifications from their suppliers thus impacting the SME. Stakeholder influence can have an impact on how an SME decides to implement CR initiatives, but the influence from stakeholder groups will change based on the sector in which a company operates as well as where that company is located. An oil and gas company in Alberta will have different stakeholders than a mining company in South America, which is why geography and sector become important components in defining which stakeholders will impact the firm.

2.1.1.3 Definition of sustainability by sector, size and geography

Within the business sector, CR as a term to describe social, environmental and economic responsibility can be influenced by contextual attributes such as industry sector, size of company as well as the location of the company. There are usually some similarities in the general definition of CR for a particular grouping of companies, but for the most part, sustainability is very context specific (Vidal & Kozak, 2008a). One way in which the sector effects the general definition of CR is by the products that a company is manufacturing within that sector. A natural resource extractive company, such as mining or oil and gas will have a different set of environmental and social compliance issues in contrast to wood product manufacturers that produce tables or cabinets for an end user. The extractive company will have different regulations, stakeholders and societal pressures. For example, waste management and environmental impact may be important aspects of CR for the mining company whereas environmentally friendly materials and sustainable wood procurement would be important CR initiatives for the wood manufacturing company.

This variance in CR activities will be dictated by the demands from industry associations as well as societal demands on how companies in these industries should operate. Societal demands may come from the general community of stakeholders or from specific stakeholders such as end users, government or third party certification organizations.

Sustainability will change within each company from influences such as vision of the founder and pressure from employees (see section 2.2) and therefore CR activities will ultimately become very company specific. Employees will demand a certain set of responsible business practices from their company. A company with fewer employees could have a greater impact on the CR initiatives of the business given that there is a flatter organizational structure and a closer relationship with the CEO or decision maker in smaller organizations.

Lastly, as Vidal and Kozak (2008) suggest, the geographic location of a company will have a significant influence on the CR activities in an organization. A company operating locally in British Columbia producing products for a local end user will have a different set of CR standards as compared to a company operating globally selling products to international end-users. (see section 2.1.1.3.1 for a more detailed description).

2.1.1.3.1 Geography and size

As mentioned above, how a company understands and practices CR is context specific. In particular, the markets within which they operate, their geography and size will affect how they view and react to CR activities. The location where these companies operate will influence how they define and react to sustainability. A company operating in Canada will have different regulations and societal expectations compared to a company operating in the European marketplace. A study done by Vidal and Kozak (2008, p. 69) analyzing forestry companies worldwide, concluded that these two factors affects how a business understands and views its CR activities. (See figure 2). Geographic location will have an impact on the sustainability initiatives a business decides to put its focus and attention (Sharma & Henriques, 2005; Vidal & Kozak, 2008b). The table in figure 2 describes CR issues based on importance and divides them based on geographic location. For example, Africa has issues more closely related to the social aspects of CR, whereas North America is concerned with safety and sustainable forestry.

Figure 2– Sustainability issues in forestry based on geography

Africa (n=2)	Asia (n=5)	Europe (n=19)	Latin America (n=5)	Oceania (n=2)	North America (n=16)
Health	Emissions Control	Certification	Community development	Environmental performance	Sustainable forestry
Education	Energy efficiency	Energy efficiency	Training for employees	Certification	Safety
Training	Recycling	Emissions control	Education	Stakeholders	Compliance
Risk mitigation		Recycling SFM Employment opportunities	Environmental management system (EMS)	Landscape values	

Vidal & Kozak 2008

The size of a company will also affect which issues are important, consequently framing the definition of sustainability (Vidal & Kozak, 2008b, p. 69). Figure 3 outlines the difference between company size and CR activities. This data was retrieved by conducting a content analysis of CR reports from fifty-one of the top 100 forestry companies listed by PricewaterhouseCoopers between 2000 and 2005.

Figure 3– Most common CR activities of top forest companies by size

Size 1 (999 and below) (n=7)	Size 2 (1,000-4,999) (n=31)	Size 3 (5,000-9,999) (n=3)	Size 4 (10,000 and above) (n=8)
SFM	Community development	Community development	Certification
Certification	Employment opportunity	Safety	Emission control
Compliance	Safety	Stakeholders	Recycling
Safety	Recycling	Energy efficiency	Energy efficiency
Employment opportunities	Water treatment	Recycling	Water treatment
	Energy efficiency	Water treatment	Local development
			Safety

Vidal & Kozak 2008

Unfortunately this table lists CR activities by dollar value rather than employees in a company, thus not specifying where the SME sector would fall. However, based on assumptions the category “999 and below” is representative of some of the SME sector.⁴ In this category, sustainable forest management, certification, compliance, and safety fall under issues that are considered legal requirements rather than voluntary CR activities. This category also has the least amount of CR activities, possibly due to the lack of resources available to smaller firms.

SMEs can often be overlooked when it comes to CR due to their small size, but when we look at the overall size of the SME sector it becomes very apparent that it is a force to be reckoned with in terms of its economic and social impact. SMEs account for approximately 90% of all companies in the world (Udayasankar, 2008). In Canada, 98% of companies are SMEs, (Industry Canada, 2009) and in the EU 99% of all companies have fewer than 250 employees (European Commission, 2011; Morsing & Perrini, 2009).

SMEs work on a different scale than MNEs and cannot use the same criteria to define sustainability, nor can they follow the strategies of large MNEs due to their lack in available resources (see barriers, section 2.2.2). SMEs will define sustainability in a different and almost

⁴ According to the government of Canada the average profitable SME has revenue of 363.9 thousand, well under the 999 thousand in this graph (http://www.ic.gc.ca/eic/site/cis-sic.nsf/eng/h_00032.html).

unique way. Each company will tweak their definition and consequently their actions in order to fulfil their own needs. There is a lack of research done on how SMEs define sustainability as well as how this sector interacts with its stakeholders. As stated by Cohen and Kozak (2006) there is even less research done in the value-added wood sector in Canada, a sector that is largely represented by SMEs. (DeLong, Kozak, & Cohen, 2007)

According to Vidal and Kozak (2008), it is suggested that forestry companies principally base their definition and consequent CR activities on societal expectations and stakeholders demand. In the past few years, these demands have primarily focused on environmental issues. However, there has been a significant shift toward issues pertaining to social responsibility. Figure 4a and 4b outline, from CR reports reviewed by Vida and Kozak (2008, p.9), the shift in reporting of social issues from 2000 to 2005. Note the large increase in attention to social issues in 2005 as compared to social issues in 2000. The concept of CR will always remains the same but how it is defined will continue to vary depending on context. Over time the demands for CR activities will change and thus companies will begin to change what they do to be seen as more responsible.

Figure 4a – Proportion of forest companies addressing specific topics within “employment” category

Topics	2000	2005
Provides employment opportunities	5%	50%
Provides work experience to youth and community as a whole	...	30%

Figure 4b – Proportion of forest companies addressing specific topics within “human resources” category

Topics	2000	2005
Employee representation/consultation	5%	80%
Training and development	55%	75%
Labor unions	5%	55%
Wages,salaries and benefits	15%	55%
Diversity	5%	50%
Equal opportunities	...	50%
Recruitment	10%	45%
Human rights	5%	40%
Motivation	5%	35%
Freedom of association	15%	25%

Figure 5 cited from Panwar (2006) outlines how the context of time can influence the definition of sustainability or in this case environmental responsibility. There has been a shift in the way environmental issues have been viewed over the past 30 years. For example, in the 1970’s, if a company had a plan to reduce emissions they were doing well but if this plan didn’t begin to adopt recycling, or reduce or eliminate the use of chlorine bleach by the late 1980’s they were no longer up to date with societal demands. It is important for a company to keep up to date with the issues that become important to their stakeholders. Sharma and Enriques (2005) also suggest that companies will decide to implement changes in their corporate responsibility practices based on their relationship with their stakeholders.

Figure 5 - Evolution of environmental issues in forestry

1970's	Emissions to water and air
Mid 1980's	Recycling
Late 1980's	Elimination of chlorine bleach
Early 1990's	Forestry and forest management
Mid 1990's	Forest certification
21 st century	Global climate change and the role of forest

2.1.1.3.2 The influence of industry associations

One of the ways in which the effects of these factors-product; geography; location-can influence how firms define and interpret their CR responsibilities are through the influence of industry associations. For example, FPAC, the Forest Products Association of Canada, requires all their members to have some sort of third party sustainable forest management (SFM) certification. Third party certification organizations include the Sustainable Forest Initiative (SFI) and the Forest Stewardship Council (FSC). According to FPAC (2011b), Canada has 40% of the world's certified forests and FPAC members represent 66% of the 151 million hectares of certified forest in Canada.⁵ In Canada, there are 41, 263,846 hectares of FSC certified forests, and 53,193,507 hectares of SFI certified forests (Forest Products Association of Canada, 2011c).

These two certification bodies mainly focus on the management of the forest rather than how the company is being managed. Certification is focused on sustainable harvesting and illegal logging, rather than building community relationships and promoting economic sustainability (Forest Stewardship Council (FSC), 2010) . A sustainably managed forest is a forest management plan that ensures the biodiversity of the forest, sustainable forest ecosystems, and overall management of the forest, whereas the sustainability of a company in the forest sector is focused on achieving balance between the three pillars of sustainable business management; environmental sustainability which would be related to sustainable forest

⁵ <http://www.fpac.ca/index.php/en/sustainable-solutions/>

management, social sustainability which is focused on the community and employees and finally, if not most importantly, economic sustainability.

Comparatively, the oil and gas industry has a similar requirement from their members however the requirements are specific to the sector. The Canadian Association of Petroleum Producers (CAPP) is similar to FPAC but for the oil and gas industry. Sustainability is at the forefront of CAPP's mission to help change the face of oil and gas (Canadian Association of Petroleum Producers, 2011). The new reporting program, "Responsible Canadian Energy", hopes to demonstrate progress in 4 key areas: environmental, health, safety and social performance. The program has been put in place so that companies can keep track of their progress in the three areas of sustainability: environmental, social (includes health and safety) and economic.

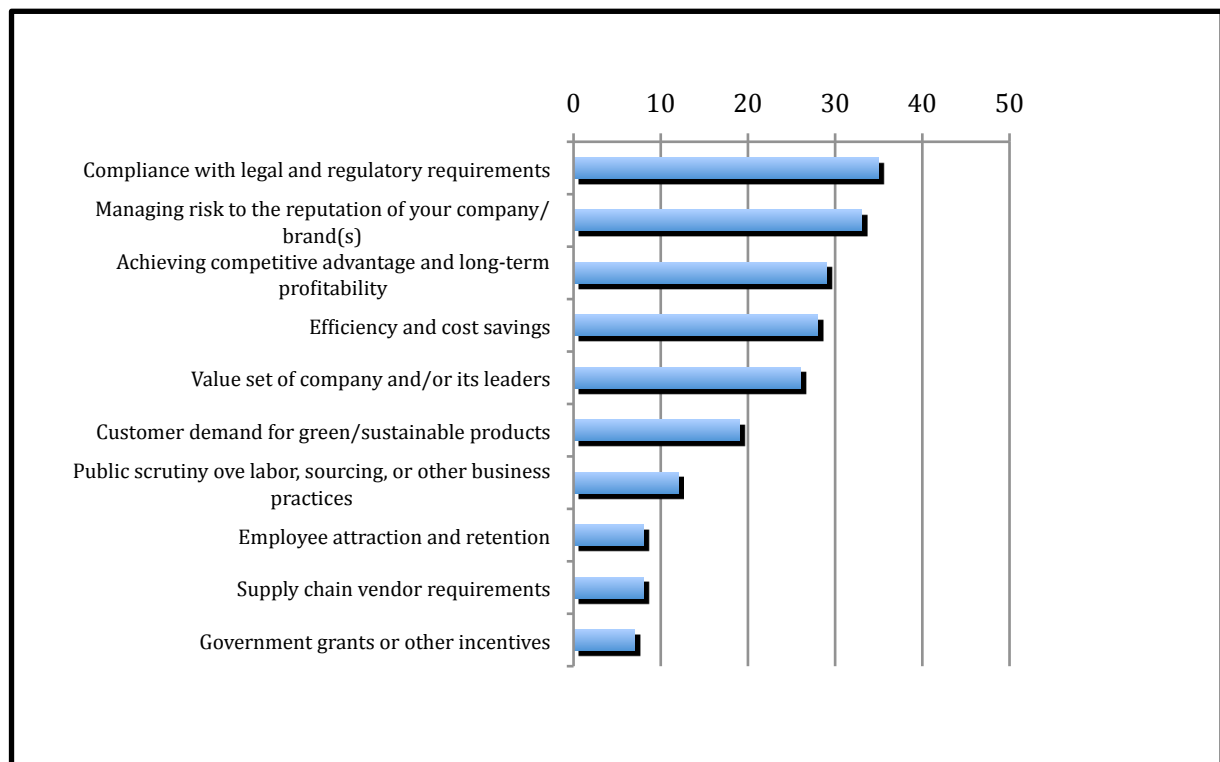
It would seem that both the forestry and the oil and gas industry define sustainability to suit their stakeholder's needs. Each sector has different demands from stakeholders and therefore the issues vary from one group to another. As noted in section 2.1.1, some of this variation can be attributed to the lack of clear definitions and measures for sustainability.

2.2. Drivers of sustainability

The business case for sustainability has been at the forefront of much of the literature. Some of the most commonly mentioned drivers/benefits of sustainability include: competitive advantage, reduced costs, increased sales, improved image and reputation, and increased employee motivation (FSC, 2010; Jenkins, 2006; KPMG, 2008; Makower, 2010; Masurel, 2007; Morsing, 2006; Simpson, Taylor, & Barker, 2004; Werbach, 2009; Willard, 2005). In December 2010, the American Institute of Public Accountants (AICPA), Canadian Institute of Chartered Accountants (CICA) and the Chartered Institute of Management Accountants (CIMA) released a report on drivers to sustainability. This report looked at the evolution of CR practices in Canada, the US and the UK; the top three drivers to sustainability for large organizations were: (1) Compliance with legal and regulatory requirements, (2) Managing risk to the reputation of your brand and (3) Achieving competitive advantage and long-term profitability (see figure 6) (AICPA, CIMA, CICA, 2010, p.5). The survey respondents were small (under 1000 employees) and large (over 1000 employees) organizational leaders who are members of these three associations. Based on the literature, the most important drivers for sustainability are external to

the company and focus on competitive advantage, compliance with regulatory bodies and managing risk and reputation. Jenkins (2006) concluded that external drivers are: improved image and reputation, better market position; and internal drivers are: increased employee motivation, cost savings and increased efficiency.

Figure 6 – Sustainability drivers for large companies



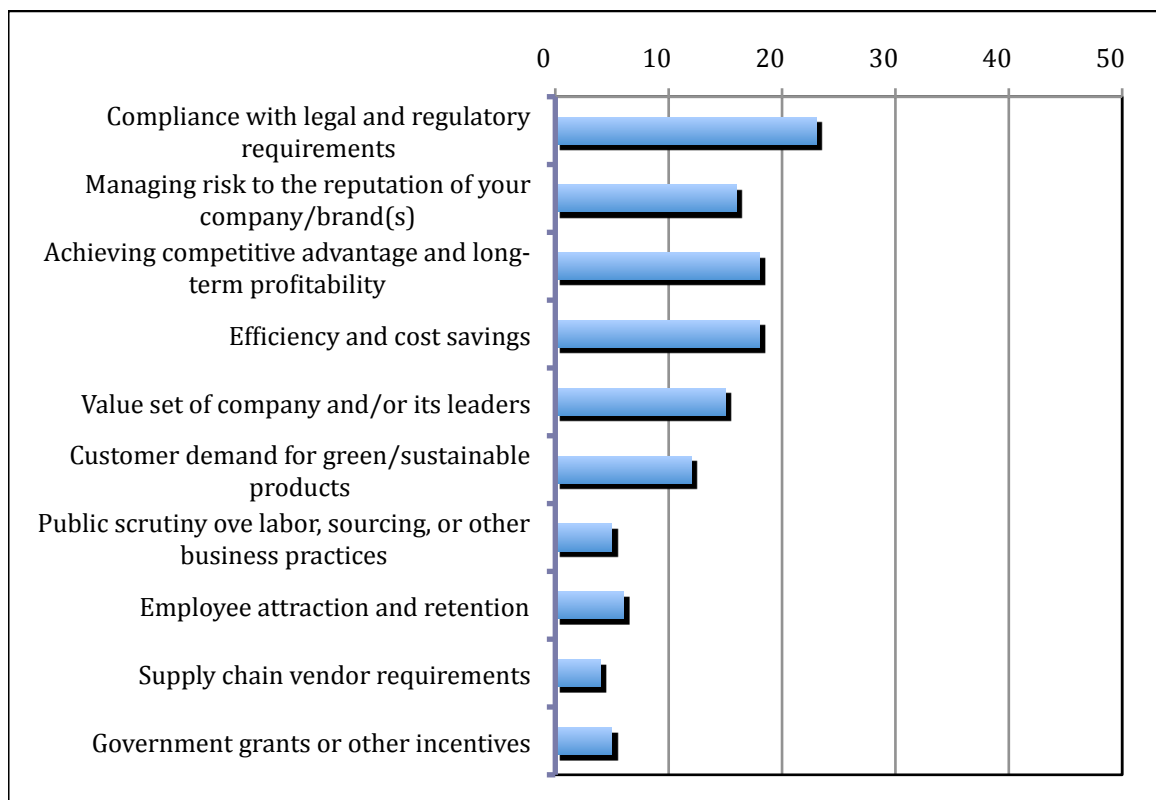
Large organizations are also more inclined to have formal sustainability departments as well as formal reporting standards, and 79% of companies currently had a sustainability strategy.

2.2.1 Drivers by size of company

The AICPA, CIMA and CICA (2010) report also focused on drivers for SMEs, which indicated that the relative ranking of drivers was not very different for SMEs and MNEs. This could be in part due to the fact that this study described an SME as a company with less than 1000 employees while most of the literature defines an SME as having 250 or fewer employees. This survey had 2,036 respondents, of which 1,319 were SMEs and 717 MNEs. Both MNEs and

SMEs were asked to answer an online survey. This report suggests that SMEs are more influenced by external drivers such as compliance and legal issues and competitive advantage, which are contrary to the literature by Castka, et al., (2004) suggesting that internal drivers are more important in the SME sector. The only internal driver that remained in the top three was efficiency and cost savings. Employee motivation was in the bottom tier of the drivers. Figure 7 outlines the drivers for SMEs (AICPA, CICA, CIMA, 2010, p. 5). This shift toward compliance and cost savings could be in part due to the current global economic situation or because SMEs have started to feel more pressure from their suppliers, customers and/or buyers to follow a particular set of regulations.

Figure 7 – Sustainability drivers for SMEs



In contrast to the large study done by the AICPA, CICA and CIMA, a study conducted in the UK by Castka, et al. (2004) suggests that there are six internal drivers and four external drivers to sustainability for SMEs (see figure 8) (Castka et al., 2004, p.142). This study defines an SME as a company with fewer than 250 employees.

Figure 8 – Internal and external drivers for SMEs

Dimension	Content
Internal dimension	Human capital management Working environmental and health & safety Quality of management Adoption to change and innovation Managing environmental impacts and natural resources Managing finances
External dimension	Stakeholder relations (business partners, consumers, suppliers, community, etc.) Corporate governance structure Human rights Global environmental concerns

Lozano and Murillo (2006) conducted a case study on SMEs in Spain, that determined that there are seven SME CR drivers: (1) Character/values of the founder, (2) Social/economic model of the manager, (3) Competitive impact, (4) Innovation possibilities, (5) Desire to differentiate, (6) Legal regulation, (7) Vision/mission of the company in its statute. This study also used companies with fewer than 250 employees. (Murillo & Lozano, 2006)

Following the research done by Murillo and Lozano (2006), Jenkins (2006) proceeded to conclude, based on interview results, that internal drivers rather than external pressures have been a larger motivation for companies to adopt CR practices. Some of the drivers that were found in this study include; external: improved image and reputation, better market position; and internal: increased employee motivation, cost savings and increased efficiency. (Jenkins, 2006)

The research conducted by Lozano (2006), Jenkins (2006) and Lozano and Murillo (2006) conflicts with the information in the most recent report from the AICPA, CICA and CIMA, on drivers of sustainability within SMEs. There could be many reasons to explain this inconsistency, one being the difference in definition of SME (fewer than 1000 employees vs. fewer than 250 employees), or potentially the year when the study was conducted. This difference could also be explained by location where each study was performed (Spain vs. UK, US, and Canada), or the sector in which the companies operate and the types of companies interviewed (Vidal & Kozak, 2008b). The literature confirms that there is a need to find timely, industry-specific information on a universal definition of an SME, the definition of CR and finally drivers for the SME sector.

Currently, there are no studies that specifically outline what drives a Canadian SME in the value-added wood sector ⁶ to conduct sustainable business practices. The literature suggests that drivers for SMEs are external to the company and include competitive advantage, compliance with laws and regulations and costs savings. Stakeholders such as end-users and influence from industry associations could also be a driving force for CR activities in this sector, but more research would need to be conducted in order to confirm this hypothesis.

2.2.2 Barriers to sustainability

We often assume that the size of a business will determine how much they integrate CR practices to their every activity. The general assumption is that a larger firm will have more resources, financial and manpower, to implement CR. However, the visibility of a firm is more of a determinant of how much companies implement CR practices (Udayasankar, 2008). Although large firms are generally more visible to the public, small firms can also be very visible within specific sectors or with certain types of consumers or suppliers and therefore feel the need to implement CR practices. When planning on implementing these practices SMEs cannot simply scale down solutions that are created for MNEs. These smaller businesses need solutions to be tailored and specific to their CR needs (Tilley, 1999), and at the moment most sustainable business solutions are tailored to MNEs (Revell et al., 2010).

2.2.2.1 Is size a barrier?

SMEs face many challenges when trying to become more sustainable businesses. According to Willard (2005) in *The Next Sustainability Wave* the three largest obstacles for SMEs to adopt CR are: (1) perceived/actual costs, (2) lack of awareness of business benefits, and (3) resources (time, money, knowledge). More recently, barriers such as cost implications, management time, and other priorities have been listed as the top three barriers to sustainability in a survey of 800 businesses in New Zealand (Lawrence et al., 2006). The obstacles to sustainability become increasingly important when companies, operating globally, have to deal with the added factor of international legalities and the need to cater to different cultures that may demand a different set of CR activities (Vidal & Kozak, 2008b).

⁶ The value added wood sector and secondary wood-manufacturing sector will be used interchangeable throughout this paper.

The way in which regulatory bodies try to simplify CR activities globally is to implement reporting standards. These standards come from organizations such as the International Standards Organization (ISO), or the GRI and UNPRI as mentioned in section 2.1.1.1. Most of these standards relate to reporting socially and environmentally responsible business practices. The majority of these standards require a membership or payment in order to gain certification, a major issue for an SME working with a tight budget.

Much of the literature on barriers to sustainability focus on barriers to environmental strategies and very little is written on social issues (Lawrence et al., 2006). The focus on environmental issues is closely related to the ability to measure this factor, whereas measuring social benefits becomes more challenging. Greenhouse gas emissions and pollution are easier to quantify in comparison with worker satisfaction and community relations. Secondly, environmental issues have been at the forefront of the debate around companies becoming better citizens. As outlined in figure 4a, 4b and 5, environmental issues have been at the forefront of much of the literature and although there does seem to be a shift toward a more holistic approach to sustainability, there is still very little research conducted on the social issues of sustainability in SMEs. This may be in part due to the literature originating from regions that are more focused on environmental issues and not from poorer areas that focus on social issues as noted on Vidal and Kozak (2006).

The top three barriers to environmental sustainability for SMEs are: (1) the perception that SMEs have very little impact on the environment, (Ammenberg & Hjelm, 2003; Lawrence et al., 2006; Simpson et al., 2004), (2) the lack of expertise and understanding of strategies to address environmental issues (Ammenberg & Hjelm, 2003; Lawrence et al., 2006; Simpson et al., 2004) and finally (3) cost and lack of perceived financial benefit (Simpson et al., 2004; Willard, 2005). These barriers are similar to the barriers found for overall sustainability in SMEs although it does emphasize that smaller organizations do not believe that they have a large impact on the environment. But as Morsing and Perrini (2009) suggest, the overall size of the SME sector, does mean in aggregate that they will in fact have a significant impact on the environment and the labour market, Given that the SME sector makes up approximately 90% of all the companies in the world (Udayasankar, 2008; Industry Canada, 2009; Morsing, 2009), it becomes apparent that individually SMEs may be unaware of their collective impact on the world in which they operate which in itself is a barrier.

Barriers to sustainability are currently unknown within the secondary wood-manufacturing industry but there is literature to suggest that some of the barriers in the overall SME sector are different than the barriers in the MNE sector (Lawrence et al., 2006). Based on preliminary expert interviews conducted with owner/managers of firms in October 2010 at the BC Wood Global Buyers Mission in Whistler, British Columbia, confusion over third party forest certification and lack of resources were mentioned as potential barrier for SMEs in this sector. More specifically the lack of resources such as limited time and money. Owner/managers also highlighted that public battles between FSC and SFI certification have created some confusion over which standard is better for their company. Companies also noted that these certification tools were too expensive and required too much time and manpower thus inhibiting them from being able to gain certification from FSC, SFI, ISO or GRI.

2.2.2.2 Canadian secondary wood industry

In 2008, the Canadian forest industry accounted for 1.8% of Canadian GDP (Natural Resources Canada, 2010). In 2009, the share of manufacturing GDP in Canada was 11.1% (Forest Products Association of Canada (FPAC), 2011a). In 2010, the wood product manufacturing industry contributed over 9 billion dollars to Canadian GDP (Canadian Forest Service, 2011). The secondary, value-added wood sector falls within the category of wood product manufacturing and was an ideal test case due to the large number of SMEs present in this sector as well as its increasingly important influence in the forest industry in Canada. The value added wood sector falls within the sector of Canadian wood product manufacturers as defined by the Government of Canada. The Canadian wood product manufacturing sector has 5,768 small to medium sized businesses across Canada with a large percentage of them being located in Ontario, Quebec and British Columbia (Industry Canada, 2011) . According to Industry Canada, 61.8%, of these businesses are considered small and employ 5-99 people (Industry Canada, 2011). In addition, 73.2% of the businesses in this category are considered profitable with average revenue of 575.8 thousand dollars.

The top three most important segments within the wood manufacturing industry are prefabricated buildings, wood windows, and engineered wood products and systems (DeLong et al., 2007). The wood manufacturing industry is represented by the Forest Products Association of Canada (FPAC), along with many other smaller associations. There is no nationwide

organization that represents the secondary wood sector but rather sector specific organizations and provincial organizations (e.g. Kitchen Cabinet Association of Canada, Architectural Woodworkers Association of Canada, BC Wood, Atlantic Wood, etc.). FPAC is a membership association for the forest industry; it is viewed as the voice of Canada's wood, pulp, and paper producers nationally and internationally in government, trade, and environmental affairs. Associations such as the Canadian Wood Council, who represent premium wood products producers in Canada, have been marketing the value of a “planet friendly wood product” (Canadian Wood Council, 2011). These industry associations, because of their large presence, become an important stakeholder for companies within the manufacturing wood sector. Although the secondary wood-manufacturing sector has been marketing the use of planet friendly wood (Natural Resource Canada, 2010; Planet Friendly Canada, 2011; Forest Innovation Investment, 2011). There has been no research conducted on the barriers and drivers of sustainability in this sector. A basic understand of the barriers and drivers to sustainability in this sector in an important step to advance the field of addressing sustainable business solutions for SMEs, specifically in the value-added wood sector.

3 Methodology

The following sections will provide a literature review of the methodology as well as an in-depth description of the methods used for the research project.

3.1 Literature review

A paper written by Couper (2000) stated that web surveys were soon going to replace traditional methods of survey data collection. This shift has happened (Kaplowitz, Hadlock, & Levine, 2004; Sills & Song, 2002) and most surveys are now web-based. There are two types of Internet based surveys: web and email. Email surveys are convenient but as Dillman (2000) suggests, can sometimes fail to be “visually stimulating” and lack “interaction capabilities”. Alternatively, web surveys can be very interactive and visually stimulating as well as easier to answer due to helpful features such as pop up windows and drop down menus (Dillman, 2000). Web surveys are also useful because (1) they are a low cost option to survey a large population, (2) they save time, (3) they reduce error in coding, (4) they can also be created to draw in the reader thus potentially increasing the response rate from respondents who are most willing to answer a survey that is engaging, and finally (5) the ability to survey a large number of people allows for the potential to eliminate survey sampling errors (Sills and Song, 2002).

Web surveys also have their disadvantages, such as technical expertise. Respondents will be more willing to respond to a survey if they feel comfortable with technology. If they are unfamiliar with a particular online survey tool, they may not feel comfortable completing the survey, or only complete a portion of the survey leading to non-response bias (Crawford, Couper, & Lamias, 2001; Dillman, 2000). The simplicity of sampling people by sending emails can also be detrimental to the survey design, as people can quickly delete emails or fail to respond to the survey. As Dillman (2000) suggests, a survey must be tailor-made for the survey respondent and the methods associated with mail surveys, such as a follow-up mail-out and a pre-survey mail-out can still prove to be helpful when using web surveys (Couper, 2000; Crawford, Couper & Lamias, 2001; Dillman, 2000).

Another important aspect pertaining to the survey conducted for this study is the increase in sustainability surveys and how that might affect response rate. This increase has made the

response rate for these types of questionnaires fairly low (Davies, 2011; Environmental Leader, 2011). A report from Environmental Leader in June 2011 outlined that companies get flooded with sustainability surveys and have to weed through the ones that are relevant and the ones that are of no value to their firm. The large quantity of surveys becomes even more challenging in the SME sector, where companies have more limited time and resources to spend on answering surveys.

Due to the minimal cost associated with online surveys, I chose to conduct an online survey with small to medium sized businesses in the secondary wood manufacturing industry. This sector is characterized by smaller firms, oftentimes family owned, that generally have less than 100 employees and mostly comprise of an aging workforce (Canadian Wood Manufacturing Council, 2011). Online surveys conducted in this sector have some disadvantages due the smaller size of the firm (lack of potential respondents) and the aging workforce, assuming that the age bracket correlates to disinclination toward technology. Much of the literature on sustainability and SMEs indicates that case studies and interviews have a better response rate (Baden, Harwood, & Woodward, 2009; Borga et al., 2009; Williamson et al., 2010; Jenkins, 2006; Spence & Perrini, 2009), but due to a lack of time, money, and the goal to be able to infer to a larger population, surveys were chosen as the method of choice for this particular study.

Based on the literature, most of the time when a researcher decides to survey an SME about sustainability, the survey is created based on preliminary interviews and a literature review (Baden et al., 2009; Williamson et al., 2010). After completing the survey, it is distributed to a specific list of SMEs that have already been in contact with the researcher, suggesting that perhaps direct contact with the survey respondent helps to increase survey response rates. In a paper by Spence (1999), it is suggested that small businesses are usually homogenized by quantitative studies, which can inhibit the studies ability to pick up the subtleties between companies, a characteristic that is of great importance in the SME sector where all companies have different needs. Spence (1999) suggests that in order to pick up on these subtleties, survey questions should be tailored to the SME sector. This way the questions will be much more meaningful to this group hopefully leading to an increase in response rates.

In a study on effect of buyer pressure on suppliers in SMEs, a mixed-method approach was adopted to survey SMEs, initial interviews partnered with a survey resulted in a very good response rate from the respondents who were both interviewed and sent a survey (Baden et al.,

2009). The study used initial interviews with 25 owner/managers of SMEs in Southern England. These interviewees were accessed via networking events and university contacts. Establishing connections with the survey respondents is a widely used form of communication to ensure a meaningful survey response rate. (Williamson et al., 2010; Baden et al., 2009; Borga et al., 2009). Baden's second half of the study developed a questionnaire based on the findings from the preliminary interviews. These questionnaires were then distributed online via several links as well as emailed to a selected group of potential respondents. Although the study produced an overall fairly low response rate, the group of members who were first interviewed to help shape the survey and subsequently sent the questionnaire had a response rate of 90%, suggesting that creating relationships with survey respondents will help to increase the survey response rate.

In order to reduce the occurrence of a low response rate, I used a pre-existing database of member from the Canadian Wood Manufacturing Council (CWMC) to attract potential survey respondents. Using a pre-existing database, as Dillman (2002) suggests, increases the likelihood of a good response rate due to the survey respondents acknowledging the third party, in this case the CWMC, as a trusted organization. The ideal respondent was an owner of a small to medium sized business with less than 250 employees. The questionnaire request was sent using a monthly newsletter with a contact email for potential respondents to reply using the provided email and requesting a link to the online survey. See Appendix A for copy of the survey and Appendix B for a copy of the survey request. Based on the literature, this method of response collection has not been used in the secondary wood manufacturing industry.

3.2 Objectives

The objective of this research project was to gain an understanding of the drivers and barriers to sustainability in the value-added wood sector. I have outlined two main objectives for this research project:

1. What factors drive the adoption of CR activities for the Canadian Secondary Wood Industry?
2. What factors inhibit the adoption of CR activities for the Canadian Secondary Wood Industry?

These objectives originated from the literature on drivers and barriers to sustainability in large organizations. Although the literature suggests that factors for large organizations are not the same for SMEs, I wanted to use a large number of drivers and barriers in order to determine if there was in fact a significant difference between barriers and drivers in large organizations

versus SMEs. There was also no previous research conducted on drivers and barriers in the value added wood sector and therefore I needed to adapt my study by using the data that was available and widely referenced for the SME sector and MNE sector thus leading me to include all known significant drivers and barriers in my survey questions.

3.3 Methodological approach

The goal of this study was to use the current literature on drivers and barriers of sustainability and create a survey to understand Canadian small to medium sized businesses in the secondary wood-manufacturing sector. The literature as well as expert interviews helped guide the survey questions. Unfortunately, due to a very low survey response rate, the statistical analysis component of the project was kept to a minimum. These limitations will be discussed in the results and limitations section.

The total of 15 survey respondents allowed me to gain some insight into how companies define sustainability, where they acquire their knowledge of sustainability as well as some general ideas around barriers and drivers to sustainability in this sector. This research project has also allowed me to gain insight on how to survey SMEs, a sector that is difficult to survey. (Spence, 1999)

3.3.1 Survey design

I chose to conduct a survey, using an online tool called SurveyMonkey, in order to gain an overall understanding of the secondary wood industry. Surveys are especially helpful to gain knowledge on a large group of people. Comparatively, I could have done smaller case studies, which would have allowed for more insight into a small number of the population, but I chose a survey because I wanted to be able to understand the SME value added wood sector. Response rates for surveys tend to vary depending on the survey design as well as how “tailor-made” the survey format is for the group being surveyed (Dillman, 2000), therefore I was focused on creating a tailor-made survey that would draw in the respondent.

When deciding how to attract survey respondents, I looked at options for mail, email and web surveys. Issues with a mail survey in a large organization are mainly focused on the target audience not getting the survey due to not opening their own mail; this problem is greatly

reduced in smaller organizations and with the use of web surveys. Response rates also increase with incentives and when surveys are smaller and directed toward a person in the company. Even so, companies can be too busy, get too many survey requests or don't see the value in completing surveys and therefore I decided to provide a summary of my findings in exchange for answering the survey. Due to budgetary constraints, financial incentives were not a viable incentive. Dillman (2000) also suggests that it is helpful to make a pre-survey phone call to companies that are being targeted. In this research project, I decided to conduct an online, web survey tailor-made for the SME value-added sector. In order to increase the likelihood of attracting survey respondents I decided to meet some of the companies who I planned to survey; this tactic has been shown to increase survey responses (Baden, 2009).

For this particular study, a cross-sectional survey was most useful as the information that was sought was about a specific point in time with a specific group in question. Other options were experimental design studies, which would have looked at a comparison of two or more groups; as well as other descriptive methods such as cohorts, or case controls, both of which would not provide accurate and relevant data for this study (Fink, 2003).

3.3.1.1 Survey sample size

This survey was delivered by email to all members of the Canadian Wood Manufacturing Council through the use of a member database. Quebec was excluded from this survey due to the language barrier associated with a non-bilingual survey.

The survey sample was chosen using non-probability sampling because the sample set was created using an already established database. The main advantage to this type of survey method is that it is economical and relatively convenient; it can however be subject to selection biases (Fink, 2003).

A cross-Canada survey was the method of choice given that I wanted to be able to infer to the population of SMEs in the secondary wood manufacturing industry in Canada. This sector consisted of the following key areas of wood manufacturing (Statistics Canada, 2003):

- NAICS 321911 Wood Windows and Door Manufacturing
- NAICS 337110 Kitchen cabinet and Counter Top Manufacturing
- NAICS 337121 Upholstered Household Furniture Manufacturing
- NAICS 337123 Other Wood Household Furniture Manufacturing

- NAICS 337127 Institutional Furniture Manufacturing
- NAICS 337213 Wood Office Furniture, Including Custom Architectural Woodwork, Manufacturing
- NAICS 337110 Wood Kitchen Cabinet and Counter top manufacturing
- NAICS 321992 Prefabricated Wood Building Manufacturing
- NAICS 321999 All other miscellaneous wood product manufacturing

In order to increase the number of respondents per category and to facilitate the analysis of the data, the survey respondents were grouped into six categories. Using each NAICS codes to define companies would have offered too many options for respondents and potentially created categories that had few respondents thus making the data difficult to analyze. Reducing the categories to six, also allowed companies to easily categorize themselves based on how they see their product line in the overall market in Canada. The six groups used in the survey were:

1. Wood kitchen cabinets and counter top
2. Household furniture
3. Office furniture
4. Flooring
5. Windows and Doors
6. Manufactured and pre-fabricated wood building

3.3.1.2 Data collection and analysis

To help guide the survey design, expert interviews were conducted on an informal basis at the BC Wood Exporters Convention in October 2010. Randomly selected companies attending the event were asked their thoughts on sustainability issues in their business. Some key themes were retained to help formulate the survey. Those themes were:

- (1) Sustainability is an ambiguous term; some companies needed an explanation of what was meant by sustainability and how it affected their business
- (2) Issues in certification schemes (FSC vs. CSA vs. SFI) and why one is more accepted than the other
- (3) Little attention is paid to the social side of sustainability; most companies were more interested in environmental issues

The survey questions were created using the online tool, SurveyMonkey; and decisions such as scaled or nominal questions, multiple choice or open-ended answers were all embedded

in the online software. I decided to use a mix of scaled, nominal and open-ended questions. This method allowed for a variety of questions and a more pleasing survey for the survey respondents. In general, respondents were required to spend approximately 10-15 minutes answering 31 questions split into 4 categories: (1) Sustainability in your Company (2) Barriers and Drivers to Sustainability, (3) Influence on Sustainability Initiatives, and (4) Firm and Market Characteristics.

The survey was distributed to six industry experts for their opinion on question formulation and content. It was then circulated to all members of the Canadian Wood Manufacturing Council (CWMC), through the use of the monthly CWMC newsletter. The sampling methods used were convenience sampling as well as some snowball sampling (Fink, 2003).

Unfortunately, this distribution method was unsuccessful. Given that I used a third party to attract survey respondents I have no way of knowing how many people were contacted but none of the members of the Canadian Wood Manufacturing Council responded to the survey request. The low response rate could have been due to many factors, but three in particular are likely responsible for my null response rate: (1) there are multiple sustainability surveys being sent around to companies and many companies do not have the time to respond to surveys, making it particularly difficult for any one survey to stand out and motivate people to respond; (2) members of the CWMC may not be diligent in reading the newsletter and therefore did not see my advertisement requesting survey respondents, (3) I did not contact enough people during the pre-survey and post-survey process and (4) the lack of available financial incentive. I will expand on these points in the limitations section of this thesis.

Due to the lack of respondents and time constraints, the survey was sent to fifteen contacts made at the BC Wood Exporters conference as well as the Canadian Kitchen Cabinet Association (CKCA) workshop held at the University of British Columbia. I was able to speak to business owners at both of these conferences and knew that they would be willing to help answer my survey due to the interest received during our first encounter. This new set of survey respondents were contacted by email and by phone using a contact list provided by the CKCA workshop at UBC as well as business cards acquired at the BC Wood conference. The CEO, president or owner was the first point of contact, but if they were unavailable, sales managers and marketing managers were asked to answer the survey; ideally searching for the person with

the most knowledge around sustainability practices in the company. Of the fifteen senior managers contacted, fourteen completed the web survey.

In the end, fifteen respondents were able to provide adequate data to analyze some trends in the responses but not in the population as a whole. During this second round of survey requests, the response rate was much higher which indicates that follow-up phone calls and emails as well as direct contact with survey respondents helped to increase my survey response rate.

A statistical package, SPSS, was the ideal method of data analysis for this type of study, but due to the small number of respondents, it was much easier to run an analysis using tools available on SurveyMonkey. A minimum of 30 survey responses would have been needed to use SPSS and this study was only able to acquire 15 respondents with a few questions answered by only 12 of the 15 respondents. SurveyMonkey allows responses to be analyzed using cross-tabulation analyses as well as a per question analysis to aggregate how respondents answered a particular question. The website also creates charts and graphs to visually understand the results. This tool was practical due to the increased trend in online surveys (Wright, 2005), and the time and budgetary constraints for my project. I was able to analyze survey responses quickly and without the need to purchase a separate statistical analysis package, such as SPSS.

4 Limitations

Section 4.1 and 4.2 will outline the limitations encountered in both the methodology chosen for the research project and its subsequent results.

4.1 Limitations in the methodology

This study had many limitations that affected its overall outcome. Time, money, a third party database and the lack of direct contact with the survey respondents were all reasons why this study was unable to produce conclusive results. The lack of resources (time and money) as well as an increased trend in web surveys pushed me to use an online survey platform, which could have been a limiting factor for survey respondents who were not technologically savvy. The lack of survey respondents was due to a number of problems one of which could have been lack of incentive to complete the survey. The inability to gain access to a database of email addresses and contact information for companies in the secondary wood sector was also a problem. The use of a pre-existing database from a third party (the Wood Manufacturing Council) resulted in the inability for correct follow-up methods as indicated in Dillman (2000). This inability to follow up with potential survey respondents was likely one of the most important reasons why my survey had a very poor response rate.

4.2 Limitations in the conclusions

Because of the lack of survey respondents, the conclusions that were drawn from the data cannot infer to the population of SMEs in Canada nor can it be used to infer to the smaller population of SMEs in the value added wood sector. In order to infer to the population of SMEs in Canada, a cross sector survey could have been completed by SMEs in multiple important sectors, including retail, oil and gas, hospitality and others. The survey could have also been sent by mail or given to respondents at various conferences across Canada over a certain period of time. Secondly, the survey was only administered to SMEs in the value added wood sector. In order to gain a picture of how this sector is affected by sustainability, a survey could have been directed to the government, NGOs and ENGOs as well as other stakeholders that affect the SME value added wood sector thus ensuring a multi-stakeholder view of how the industry and its

stakeholders are affected by the barriers and drivers of sustainability. The survey was also only answered by business owners who were contacted directly at either the BC Wood Buyers Mission in Whistler, BC or at the Canadian Kitchen Cabinet Conference at the University of British Columbia. In order to get a representative sample of all SMEs in the value added sector, the survey could have reached a larger group of respondents if I had been able to attend more conferences and had more direct contact with survey respondents.

Given that I had a low response rate and those responses received resulted from personal contact with owner/managers at these two conferences, this method of surveying could have resulted in a very high sample selection bias. Respondents represented a subset of owner/managers who were interested in sustainability and who were likely more inclined to rate social and environmental issues as important influences on the company sustainability practices. They also were more likely to rate their company as being more sustainable than they might actually be. This method of surveying did not minimize survey respondent bias in the second round of data collection. Some other general respond biases resulted in the inability to infer to the population and the inability to draw conclusions that were representative of all sectors given that there was a heavy bias on cabinet producers.

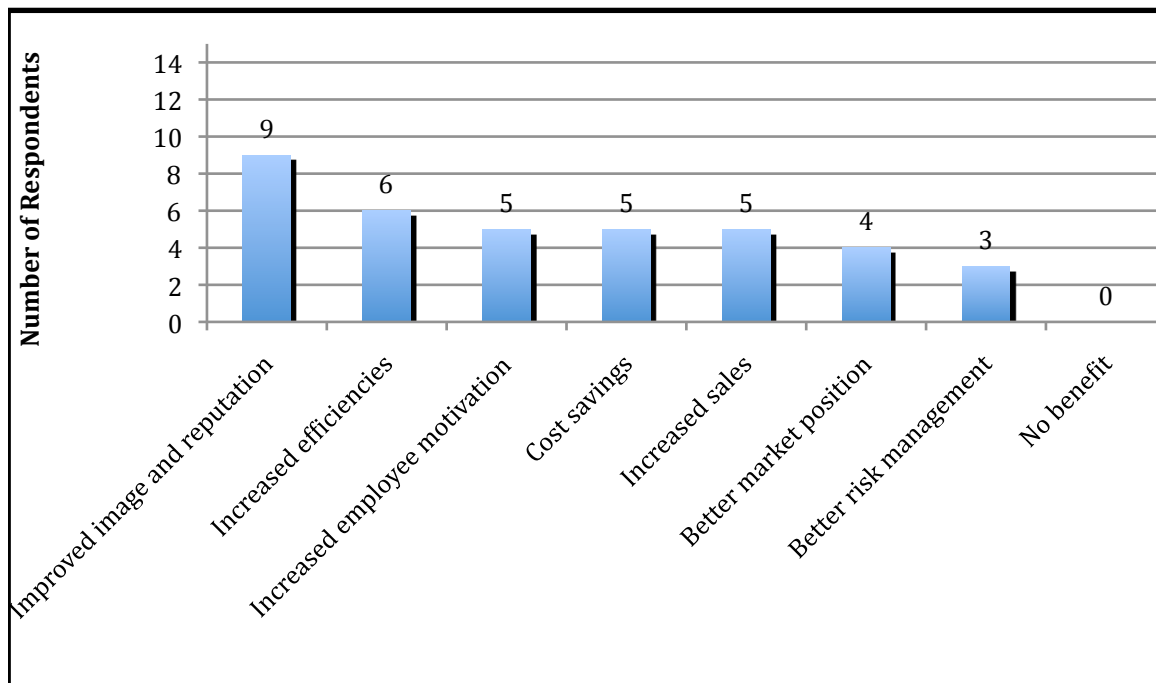
5 Results

5.1 General trends from the data

Due to the lack of available statistical data, the following results will only explore barriers and drivers to sustainability in SMEs. The survey questions have been summarized and some general trends have been noted but no overall conclusions can be drawn. The limitations section, as outlined in the previous section, provides further detail for the reasons why the data was inconclusive.

Of the 15 companies surveyed, 83% (10 out of the 12 firms who responded to this question) had implemented sustainability practices and 33% (4 out of 12) had some sort of report on sustainability. This sustainability report was created to satisfy either government requirements or required by architects and other stakeholders along their supply chain. The most important benefit of implementing sustainability practices was improved image and reputation (see figure 9), and the least important benefit was better risk management. Although it is difficult to draw generalized conclusions from the data, it seems that the benefit of improved image and reputation is, by far, the most important benefit of implementing a sustainability strategy for these respondents. The other benefits are all closely grouped together and varied based on the survey respondent.

Figure 9 – What benefits, if any, has your company found after implementing sustainability practices? (n= 11)



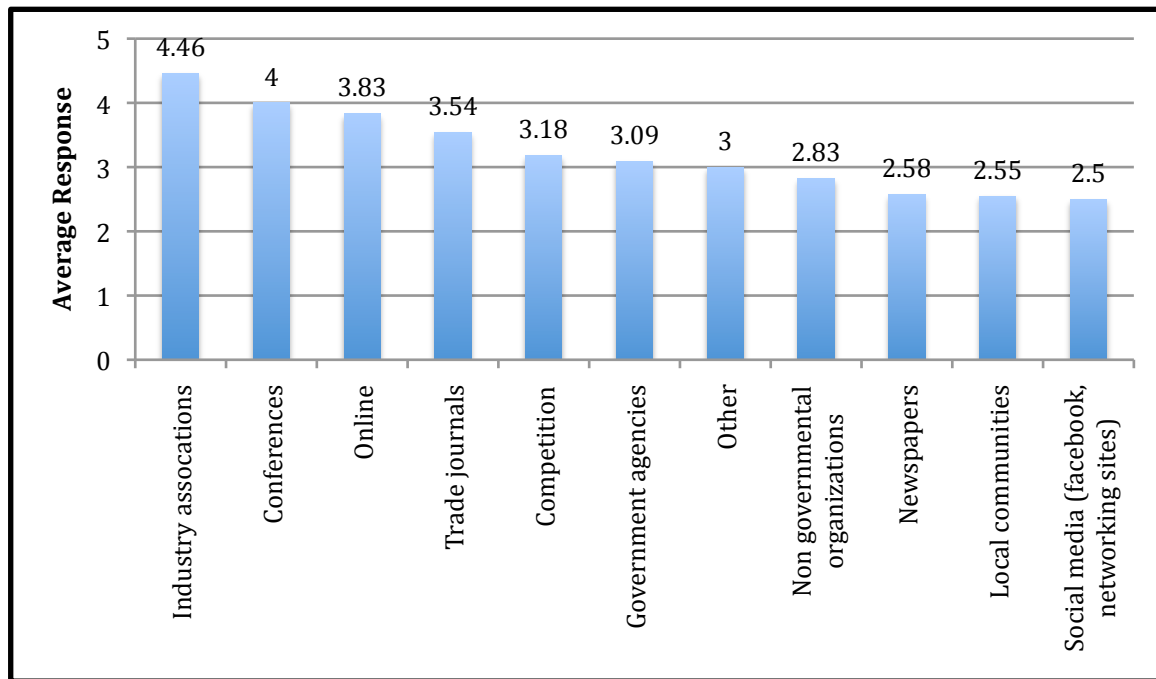
In preliminary interviews with companies, certified wood was a fairly important issue to most secondary wood manufacturers. Based on the results of the survey, 10 out of 12 companies were using certified wood to manufacture their products. Interestingly, all companies (3 out of the 10) who manufacture outside of Canada were using certified wood (see Figure 10). Further research to understand why companies who manufacture outside of Canada feel the need to use certified wood and how manufacturing outside of Canada impacts Canadian SMEs would be interesting, as well as what markets and which industry associations affect whether or not a company uses certified wood.

Figure 10 – Cross-tabulation (1. Do you manufactured outside of Canada? 2. Do you use certified wood?) (n= 12)

Manufacturing outside of Canada	Using certified wood	
	<i>Yes</i>	<i>No</i>
<i>Yes</i>	20%	0%
<i>No</i>	80%	100%

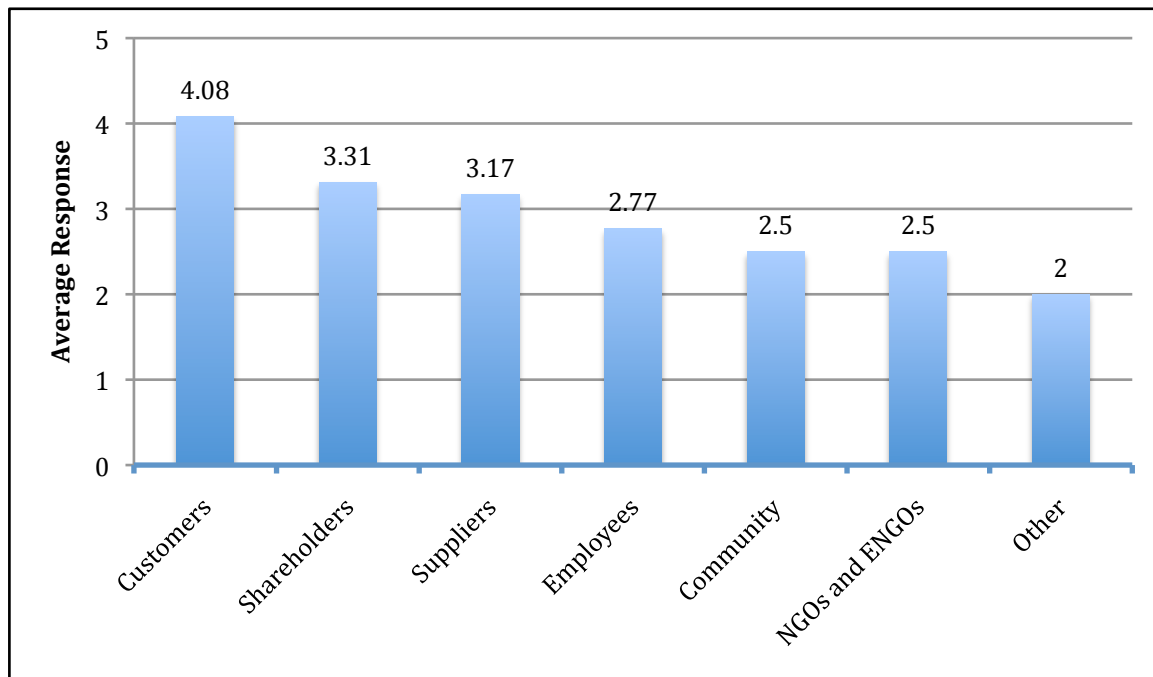
Figure 11 outlines how companies learn about sustainability. This question was exploratory and responses were to show how companies learn about sustainability in order to be able to recommend to stakeholders how best to approach companies in the future. Industry associations and conferences were the top two ways in which SMEs learn about sustainability. Social media was not an important communication mechanism for SMEs in the value added wood sector but online information such as websites seem to be an effective tool. More research would need to be conducted in this area to understand how the Internet has an impact on the communication mechanisms within the SME sector.

Figure 11 – Please indicate how you learn about sustainability practices. (ie. which forms of communication are most useful to your business) Please rate on a scale, where 1 - Not at all useful and 5 - Extremely useful. (n=13)



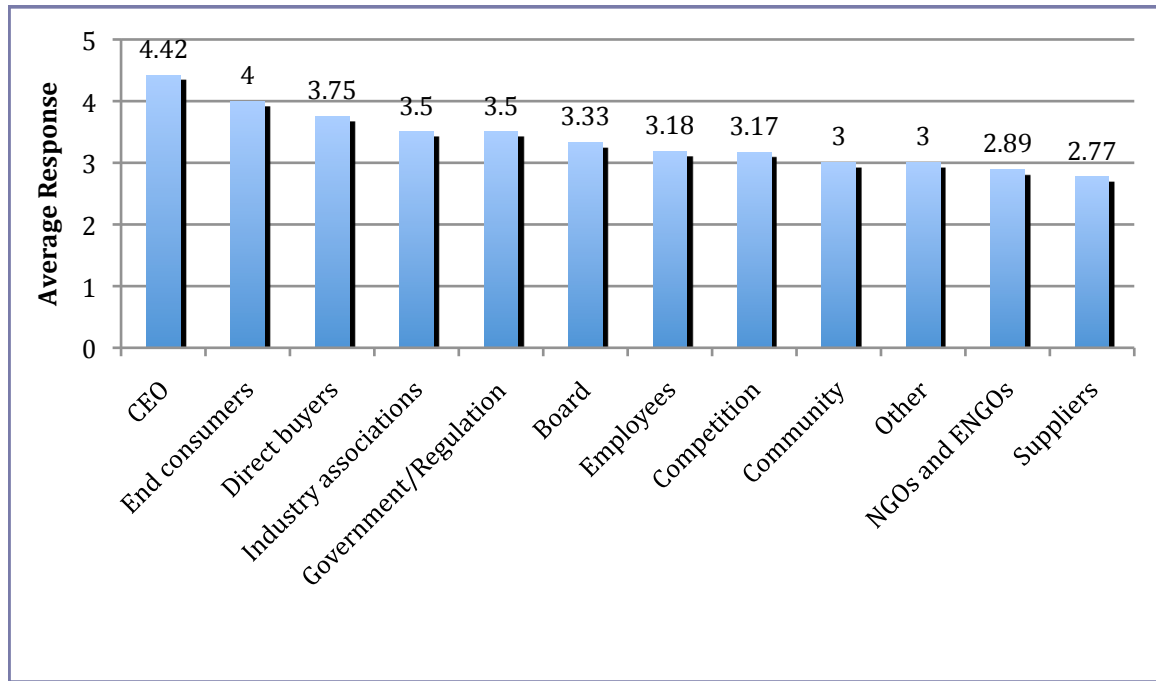
When asked about stakeholder influence, responses were fairly consistent with the literature (Castka, Balzarova, Bamber, & Sharp, 2004; Jenkins, 2009; Lawrence et al., 2006). The most influential stakeholder was customers and the least influential was NGOs, ENGOs and community (see figure 12). However, there was a higher level of variation within the responses for shareholders (standard deviation of 1.32) suggesting that the respondents varied on their opinion about the importance of shareholder influence. The graph in figure 12 outlines the total responses based on a scaled measurement where 1 was “not at all influential” and 5 was “most influential”.

Figure 12 – Which stakeholders have the largest influence on your sustainability initiatives? (1- being no influence, 5 – very high influence) (n= 13)



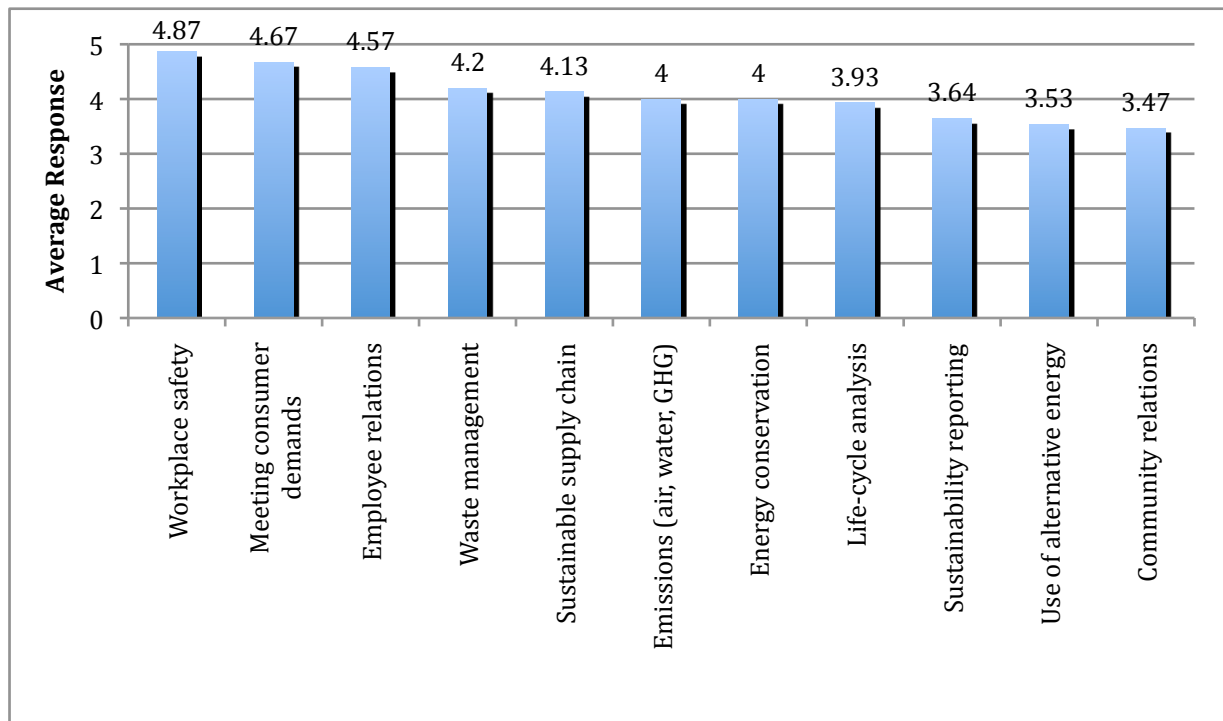
The survey also asked respondents about the influence of advocates for sustainability in their business. This question complements the previous question about stakeholder influence and helps to gain a better understanding of who influences companies to become more sustainable (see figure 13). According to the survey, the CEO is the strongest advocate (standard deviation of 0.76), suggesting that a CEO with a strong desire to have a sustainable company will likely help motivate his employees to conduct sustainable business practices. Surprisingly, the least important advocate is the supplier, perhaps suggesting that small businesses are not as influenced by the supply chain as some of the literature might suggest or that the pressure within the supply chain comes from the purchasers/customers rather than from the suppliers. With a standard deviation of 1.48, the largest of all the possible responses, direct buyer can influence the supply chain but respondents of this survey were varied (s) on their opinion of how important this influence would be on their sustainability initiatives.

Figure 13 – Who is advocating for your company to be more sustainable? (Please indicate the level of pressure they put on your company, 1 – being weakest advocate, 5 – being strongest advocate) (n=13)



Compared to the literature, companies who were asked about the importance of certain areas of sustainability in their business, ranked most external and internal as well as social areas of sustainability as highly important (see figure 14). The blue lines represent the average response (from a likert scale of 1 to 5) in a question on importance of sustainability initiatives. Workplace safety and employee relations are considered internal factors whereas meeting consumer demand is an external pressure. Although this graph does not represent any significant trend, it is important to note that none of the respondents ranked these areas of sustainability as unimportant. This result may suggest that companies who responded to the survey are aware, even if only slightly, that sustainability is an important component of their current and future business strategies.

Figure 14 – What is your opinion on the relative importance of the following areas of sustainability for a business. (n=15)

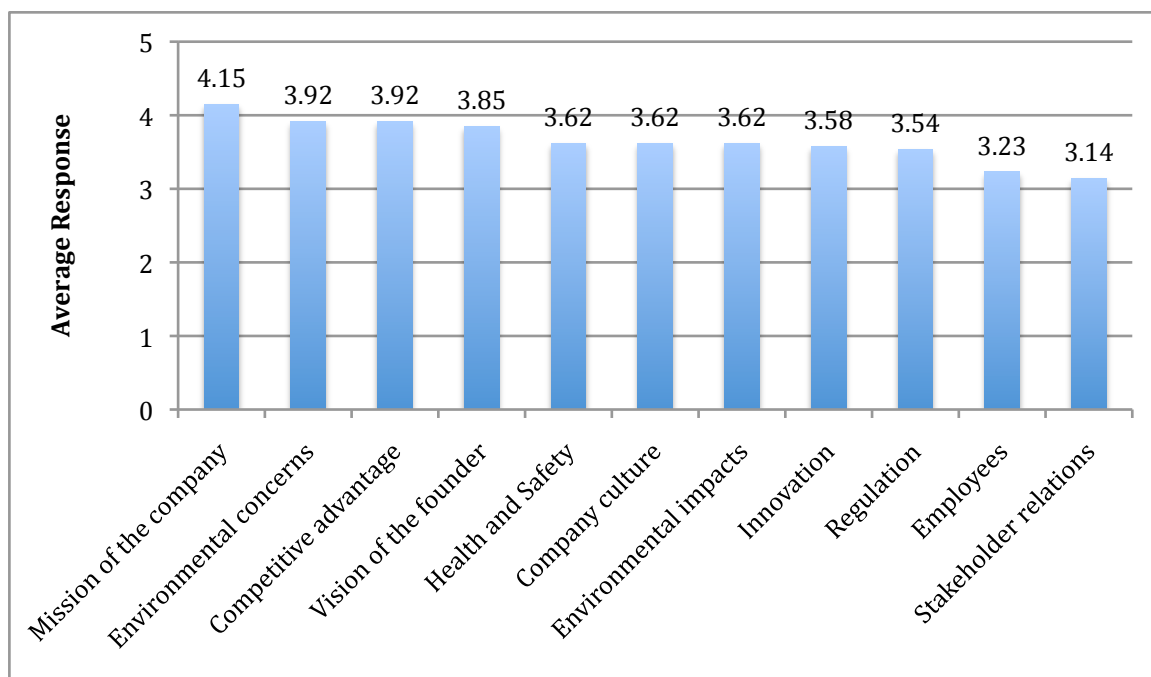


5.2 Results - drivers and barriers

When asked about drivers to sustainability, company responses were fairly consistent with the literature (see figure 15); mission of the company, environmental concern, competitive advantage and vision of the founder were the top 4 drivers of sustainable business practices. This survey question was formulated to ask respondents about the relative influence of a particular set of drivers on their business. The responses were scaled from 1 to 5 (1-being not at all influential and 5-being most influential). Of the respondents who answered with a 5 (most influential), the drivers that were the most important were regulation and mission of the company, however regulation had the largest standard deviation (1.45) suggesting that the survey respondents varied in their opinion on how much of a driver regulation is to their organization. Mission of the company had a standard deviation of 0.77. The smaller standard deviation was with competitive advantage suggesting that respondents agreed that it was a relatively important driver (average response 3.92 out of a possible 5). A second question was asked to respondents asking them to

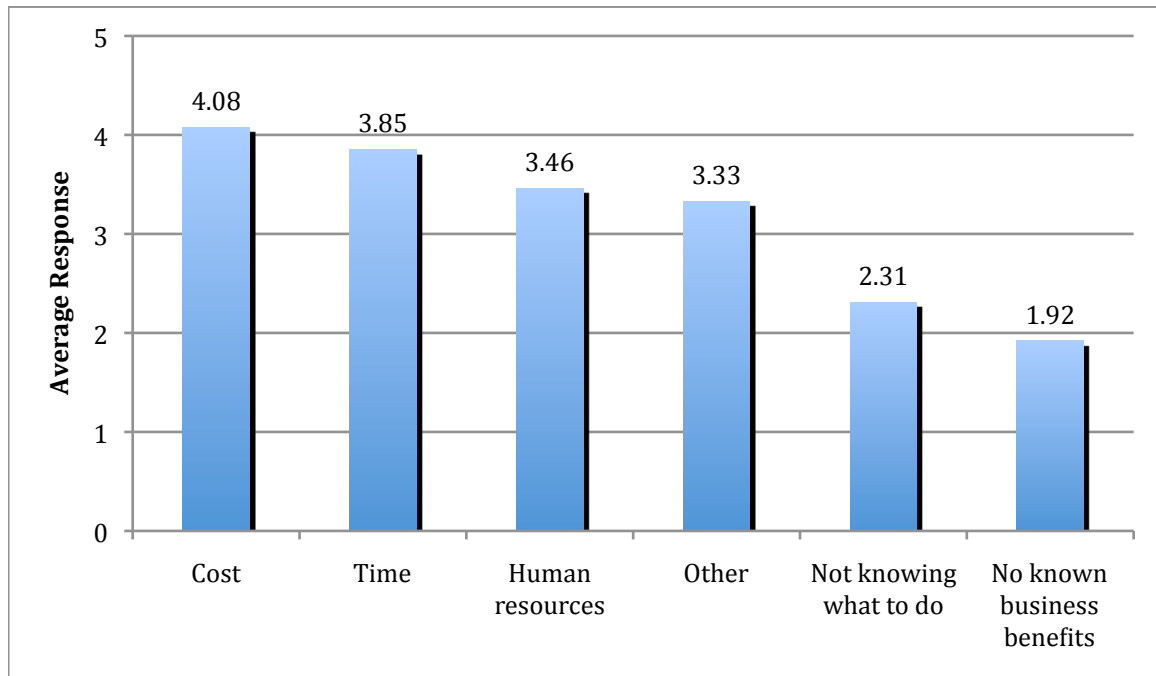
respond in written format what they thought to be the most important driver to sustainable business practices. Using the SurveyMonkey text analysis tool, three key words were found to be in the majority of the responses: regulation, market demand, and green. This would suggest that environmental responsibility and external drivers such as regulation and customer demand are important to this sector. This result also aligns with much of the literature that suggests that environmental responsibility is still the driving force behind sustainability strategies.

Figure 15 – Please rate the relative importance of the following drivers on sustainable business practices (1 being– not at all influential, 5 being - most influential). (n=13)



When asked about barriers, most responses were also fairly consistent with the literature (see figure 16). The top barrier was cost followed closely by time and the least important barrier was no known business benefits. This result suggests that companies are aware of the benefits to sustainable business practices but could use services to help pay for, or provide time to implement sustainability initiatives. These services could be tools such as government incentives or programs to help them with implementing sustainable business practices.

Figure 16 - What are the barriers to sustainability for your business? (Please rate based on importance, 1 being- not a barrier, 5 being – very strong barrier). (n=13)



Despite the low response rate the results are aligned with the previous studies reported in the literature (Masurel, 2007; Jenkins, 2006; Morsing, 2006; Simpson, 2004; Makower, 2010; Werbach, 2009; KPMG, 2008; Willard, 2005; Lozano and Murillo, 2006; Jenkins, 2006; AICPA, CICA, CIMA, 2010; Castka et al., 2004).

6 Conclusions and recommendations

Sustainability in the SME sector continues to be a fast moving, ever changing area of research. The literature suggests that there are common barriers for SMEs but over the past few years an increase in awareness and financial incentive (enlightened self interest) has made some SMEs adopt better CR practices and give way to an improved understanding of what drives an SME to be more sustainable. The barriers and drivers for CR have now been well outlined but the research still fails to offer insight into policies that could help the SME sector become more financially, environmentally and socially responsible.

The goal of this thesis was to gain a better understanding of what inhibits and what motivates SMEs to conduct sustainable business practices. In order to achieve this objective I focused on a specific subsection of the Canadian small business industry: the value-added wood sector. I chose the value-added wood sector due to the large amount of small businesses in the sector, the wide spread impact on many communities across the country as well as its impact on the overall Canadian economy.

In order to achieve this objective, I used the literature as well as expert interviews to help guide a Canada wide survey. I planned to survey a sample of the SME value-added sector across Canada using the Canadian Wood Manufacturing Association newsletter. This method was unsuccessful and resulted in a null response rate. Given this response rate, I resorted to contacting owner/managers who I had previously met at various conferences in Vancouver and Whistler, BC. This second method was more successful but only managed to attract 15 survey respondents. Using these 15 respondents, I was able to draw some general conclusions and offer recommendations for further research in the field of sustainability in the SME sector.

6.1 Recommendations for methodology

The survey methodology was designed to provide exploratory research. The survey design and methodology did not use a prescribed format given that there was no previous research conducted in this way on the value-added wood sector in Canada. The survey methodology was formed using many methodological approaches and was unfortunately not successful in achieving a quantifiable outcome. This resulted in an inability to prove or disprove

my hypothesis. The survey may have had better success if it had followed a predetermined methodological approach.

The survey was created to attract small businesses in the value-added wood sector, via the use of a website. The companies needed to first access the survey using a web link provided in an email and secondly answer the online survey created on SurveyMonkey.com. Web surveys have been a popular method for technology-knowledgeable people and have also been noted to have a good response rate. Unfortunately, the value-added wood sector did not respond positively to the online survey method due to many factors: (1) the way in which I chose to administer the survey and attract potential survey respondents, (2) the possibility that the value-added wood sector is not as tech-savvy as I had initially thought, (3) the lack of time available or interest in answering surveys about sustainability, and (4) the lack of financial incentives.

The inability to follow up with potential survey respondents was likely one of the most important reasons why my survey had a very poor response rate. Firstly, the Canadian Wood Manufacturing Council's newsletter was used to administer the survey. This means of communication was not well received given the low response rate. I recommend that surveys be administered directly to the survey respondent rather than using a third party. This would ensure the ability to do follow-up emails and phone calls as well as keep better track of the number of survey respondents. The second point suggests that the value-added sector may not be technologically inclined and thus unfamiliar with web surveys. This sector may also be averse to surveys about sustainability because they are not actively promoting sustainability in their business. In order to account for this type of error I recommend using a combination of web, phone and paper surveys in order to access a wider range of companies. Speaking with industry experts to help inform the survey questions was helpful in order to create well-formed questions but did not help increase the response rate. In the future, I suggest that surveys designed for SMEs should be initially administered by telephone, in person or by personal email and followed up by phone or email. The follow up phone call or email is an important step in making sure that the survey respondent responds to the survey, and has the ability to ask questions about the survey. Due to confidentiality issues with the Canadian Wood Manufacturing Council I did not have the list of survey respondent and was unable to contact them directly. This was a contributing factor to the low response rate given that all respondents who were personally contacted responded to the survey.

6.2 Recommendations for survey design

The second issue lies in the survey design. This survey was designed to understand what drives a business to be more sustainable and what inhibits a business to be more sustainable but it misses the mark by not providing more questions to understand what would help companies overcome some of the barriers mentioned in the survey. I recommend adding more specific and open-ended questions to understand what policies and initiatives would allow these SMEs to be more sustainable.

Secondly, I recommend reviewing questions pertaining to drivers of sustainability. In figure 15, the answers are confusing due to two very similar choices: environmental concern and environmental impact. Both answers were ranked the same and respondents could have been confused by the similarity of these two options. I recommend combining these two options to create a single choice for environmental concern.

I also recommend more open-ended questions to understand how stakeholders have an influence on SMEs in the value-added wood sector. Based on the literature and initial expert interviews, stakeholders have an impact on businesses and it would have been helpful to gain a better understanding of how these stakeholders impact the SME value-added wood sector.

The survey questions were also at times long and potentially confusing. Questions 3, 6, 14, and 16 were quite long and required respondents to rate based on relative importance. A rating scale is helpful for questions with multiple answers however I suggest a 5-point likert scale with no more than 5 choices thus making it easier for survey respondents to rate their answers from 1 to 5.

Lastly I recommend further research be conducted in a two-fold manner where a questionnaire is administered and then followed up by in-depth interviews with randomly selected businesses. This method would allow for an overall understanding of the population of SMEs in a given sector and a more in depth understanding of some of the issues that these businesses face on a daily basis. As per the literature, the SME sector is very unique and requires unique recommendations that can only be acquired by more specific and in-depth research.

6.3 Recommendations for future research

Due to the low number of responses and the biases and limitations noted in section 4.0, future research should be pursued in the subsequent areas to follow-up on general directions indicated by this work. Overall, more research should be conducted on policies and tools that can help alleviate some of the barriers to sustainability for the SME sector. Based on the exploratory data in my survey, the value-added wood sector needs incentives and strategies in order to overcome barriers to sustainability and move toward more responsible business practices. Long term research on the effects of implementing sustainable business practices as well as the cost of these initiatives on the natural, physical and financial world would be helpful in our given economic state. Companies would then be able to begin to understand the financial investment required for some sustainable business initiatives and how to strategize for responsible business practices.

Interviews or surveys should be conducted on other sectors within the SME industry in order to gain a better overall picture of the sector. More in depth interviews and surveys would also confirm or disprove the theory that all SMEs are very unique and require a set of unique strategies. This theory currently implies that a one-size-fits all strategy or policy will not be ideal for the SME sector and in a world with increasingly large companies deciding how to define sustainability, the unique SME could be at a disadvantage. I recommend more surveys be conducted on specific sectors to gain an understanding of the particular sector needs. I also recommend a larger survey or data analysis of many smaller, sector specific surveys be conducted to gain a better overall picture of the SME sector in Canada.

Issues pertaining to certification are also a concern for an SME wanting to move toward a more sustainable business model. Certification can be complicated and tedious thus inhibiting an SME to adopt any one specific set of guidelines. The GRI for SME tools appear to be the best guidelines to help an SME adopt sustainable business practices but more research would need to be conducted in order to confidently recommend which set of guidelines are most beneficial to the SME sector.

Lastly, I recommend more research on behaviour change models and how they may be used to understand decisions about sustainability within an organization. For example, previous work suggests that SMEs do not see themselves as having much impact, and it would be important to investigate what impact this has on their willingness to implement or adopt more

sustainable strategies. In order to implement lasting change, employees, management and the board of directors will need to adopt different behaviour toward sustainable business initiatives. Therefore research on behaviour change models would be an ideal next step to gain insight on where the industry is at within the model and how the model could be used to evoke positive behaviour change within an organization.

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Appendix A – copy of online survey

PAGE 1

Barriers and Drivers for Sustainability in the Value-Added Wood Sector

This survey is part of a research project by a graduate student in Forestry at the University of British Columbia. The goal of the project is to assess what barriers and advantages there are to conducting sustainable business practices in the secondary wood manufacturing industry. Your company has been invited to participate in the survey in order to gain a better understanding of the specific challenges and advantages your company has encountered in adopting sustainable business practices. The results will be summarized and reported only on an aggregate basis. If you would like to have a summary of results, at no charge, please provide me with your email.

This survey will help to identify two important issues: (1) what drives sustainable business practices in the secondary wood industry and (2) what are the barriers that make sustainable business practices a challenge to implement. In this way, executives will have a better understanding of what is possible and what is difficult to do.

In filling out this survey you are giving your consent to let the results be used in the research project. The survey is presented in 4 sections: (1) Sustainability within your company, (2) Barriers and Drivers to sustainability, (3) Influence on sustainability initiatives, and lastly (4) Firm and Market Characteristics. The survey will take you approximately 10-15 minutes to complete. None of the information submitted will be reported on an individual basis, nor will individuals be identified, by company or by name.

Confidentiality

The survey will be conducted online. This online survey company is hosted by a wesurvey company located in the USA and as such is subject to U.S. laws. In particular, the US Patriot Act which allows authorities access to the records of internet service providers. This survey or questionnaire does not ask for personal identifiers or any information that may be used to identify you. The websurvey company servers record incoming IP addresses of the computer that you use to access the survey but no connection is made between your data and your computer's IP address. If you choose to participate in the survey, you understand that your responses to the survey questions will be stored and accessed in the USA. The security and privacy policy for the websurvey company can be found at the following link: <http://www.surveymonkey.com/privacypolicy.aspx> and http://www.surveymonkey.com/Monkey_Security.aspx.

This research is being carried out by Allyson Clark, a Master's Candidate at the University of British Columbia (UBC), under the supervision of Drs. Harry Nelson (Assistant Professor) David Cohen, (Professor) in the Faculty of Forestry at UBC. Further information about the research project or about what has prompted the project can be requested from either Allyson or Harry.

Allyson Clark can be reached at XXX.

Harry Nelson can be reached at XXX.

David Cohen can be reached at XXX.

For implied consent, you state that by submitting a survey, you are consenting. Please keep a copy of this consent form for your records.

Thank you for taking the time to complete this survey! It is very important that we have a representative sample.

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PAGE 2

1. Sustainability in your company

The following section will be questions pertaining to sustainability in your organization. Please answer to the best of your ability.

1. a) Indicate the relative importance of these 3 factors, in defining the sustainability of a company.

	Unimportant	Of little importance	Moderately important	Important	Very important	N/A
Environmental sustainability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Social sustainability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Economic sustainability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1. b) Estimate what you think the relative importance of these factors will be in five years.

	Unimportant	Of little importance	Moderately important	Important	Very important	N/A
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Environmental sustainability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Social sustainability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Economic sustainability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. What is your opinion on the relative importance of the following areas of sustainability for a business?

	Unimportant	Of little importance	Moderately important	Important	Very important	N/A
Emissions (air, water, greenhouse gas)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Waste management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employee relations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Workplace safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Energy conservation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use of alternative energy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meeting consumer demands	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Community relations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sustainable supply chains	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Life-cycle analysis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sustainability reporting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other (please

specify)

3. Based on your definition of sustainability, what is your familiarity with each of the following issues?

	Unfamiliar	Not very familiar	Moderately familiar	Familiar	Very familiar	N/A
Awareness of sustainability in business practices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personal expertise in sustainability issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Where does your firm focus most of its sustainability efforts? Please rank on a 5 point scale, 1 being-no effort, and 5 being-very high amount of effort.

	1	2	3	4	5
Product development	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Operations (eg. eco-efficiencies)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business strategies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community Engagement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please

specify)

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2. Barriers and Drivers to Sustainability

This section will ask you questions about the drivers and barriers that your company has encountered while trying to implement sustainability initiatives.

1. Please rate the relative influence of the following drivers on sustainable business practices. (1 being Not at all influential and, 5 being- most influential).

	1	2	3	4	5
Employees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Health and safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Company culture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Innovation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental impacts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stakeholder relations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental concerns	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Competitive advantage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Regulation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vision of the founder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mission of the company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

other (please

specify)

2. What do you think is, or could be, the most important driver for more sustainable business practices?

3. a) Have you implemented any sustainable business practices in your business? If yes, please answer question 3 b), if not, please go to question 4.

☐ Yes

☐ No

3. b) Has your company found any benefits after implementing sustainable business practices? if yes please go to question 3 c).

☐ Yes

☐ No

3. c) What benefits, if any, has your company found after implementing sustainable business practices?

☐ Improved image and reputation

☐ Better market position

☐ Increased employee motivation

☐☐

☐ Better risk management

☐ Increased sales

☐ No benefits

Other (please

specify)

3. d) What actions has your company taken in the past year to become more sustainable?

4. What are the barriers to sustainability for your business? (Please rate based on importance, 1 being not a barrier, 5 being-very strong barrier)

	1	2	3	4	5
Costs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
No known business benefits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Human resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not knowing what to do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please

specify)

5. What actions would help remove the most important barriers mentioned above?

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3. Influence on Sustainability Initiatives

The following section will focus on the factors that influence your decision, as a company, to become more sustainable.

1. Please indicate how you learn about sustainability practices. (ie. which forms of communication are most useful to your business) Please rate on a scale, where 1 - Not at all useful and 5 - Extremely useful.

	1	2	3	4	5	N/A
Online	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trade journals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Newspapers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social media (eg. facebook, networking sites)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Non-governmental organizations (NGOs and ENGOs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Industry association	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conferences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Competitors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Government agencies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local communities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please

specify)

2. Which stakeholders have the largest influence on your sustainability initiatives? (1 being- no influence, and 5 being-very high influence)

	1	2	3	4	5
Employees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Suppliers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shareholders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
NGO's and ENGO's	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please

specify)

3. Who is advocating for your company to become more sustainable? (Please indicate the level of pressure they put on your company, 1 being- weakest advocate, 5 being - strongest advocate)

1 2 3 4 5 N/A

Suppliers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
End consumers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Direct buyers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Industry associations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Competitors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your board	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your CEO	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your employees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Government/Regulation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
NGO's and ENGO's	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please

specify)

4. Are you using certified wood to create your products?

☐ Yes

☐ No

If so, what certification scheme do you

use?

5. If you do not use certified wood, do you plan to use it in the next 5 years?

☐ Yes

☐ No

Why? (please

specify)

6. a) Do you report on sustainability? To whom?

☐ Yes

☐ No

To

whom?

6. b) Why do you report on sustainability?

+ Add Page

PAGE 5

4. Firm and Market Characteristics

In this section, we would ask that you please provide some demographic information for your firm. Thank you !

1. Please estimate the average number of employees in 2010.

- ☐ less than 5 ☐ 101-250
☐ 6-50 ☐ 250 +
☐ 51-100

2. Where is your company located?

ZIP/Postal

Code:

3. Please provide your email address if you would like to receive a summary of findings.

Email Address:

4. a) Where do you manufacture your products within Canada? (please indicate a percentage for each answer, the total must add up to 100)

British Columbia	<input type="text"/>
Alberta	<input type="text"/>
Saskatchewan	<input type="text"/>

Manitoba	<input type="text"/>
Ontario	<input type="text"/>
Quebec	<input type="text"/>
New Brunswick	<input type="text"/>
Nova Scotia	<input type="text"/>
PEI	<input type="text"/>
NFLD and Labrador	<input type="text"/>

4. b) Do you manufacture products outside of Canada? If yes, please answer 4. c).

☐ Yes

☐ No

Where (please

specify)

4. c) What proportion of total production is outside of Canada?

5. a) Who are your 3 most important customers. (Please list the type of customer, eg. industrial, retailer, end user, etc.)

1.

2.
3.

5. b) What percentage of sales do your three most important customers represent?

6. Please estimate the percentage of sales in 2010. Please forecast these sales 5 years from now.

	2010	2016
Canada	<input type="text"/>	<input type="text"/>
1) Western (BC, AB)	<input type="text"/>	<input type="text"/>
2) The Prairies (MB, Sask)	<input type="text"/>	<input type="text"/>
3) Quebec	<input type="text"/>	<input type="text"/>
4) Ontario	<input type="text"/>	<input type="text"/>
5) Atlantic Provinces (NB, NS, Nfld and Labrador)	<input type="text"/>	<input type="text"/>
USA	<input type="text"/>	<input type="text"/>
Europe	<input type="text"/>	<input type="text"/>
Asia	<input type="text"/>	<input type="text"/>
Other: _____	<input type="text"/>	<input type="text"/>

7. What percentages of sales do the following list of products represent for your business?

% of sales

Wood kitchen cabinets and counter top	<input type="text"/>
Household furniture	<input type="text"/>
Office furniture	<input type="text"/>
Flooring	<input type="text"/>
Windows and doors	<input type="text"/>
Manufactured and pre-fabricated wood buildings	<input type="text"/>
Engineered wood products	<input type="text"/>
Other	<input type="text"/>

Other (please

specify)

8. Please estimate the total value of sales you expect in 2010.

Thank you for completing the survey! If you have provided an email address, you will be sent a summary of results in the coming months.

Appendix B – Copy of request to complete survey – CWMC winter 2011 newsletter

SUSTAINABILITY SURVEY

Have you ever considered the sustainability of your business? Do you want to be greener and more socially responsible, but don't know how? Do you want to know how other wood manufacturing companies like yours approach sustainable business practices?

A research team at CAWP at the University of British Columbia will be conducting an online survey on the barriers and drivers to sustainability in the wood manufacturing sector.

The team consists of David Cohen and Harry Nelson (supervisors) and Allyson Clark (the graduate student who performs most of the surveying work).

If you would like more information or are interested in helping with this project by conducting a short survey (less than 15 minutes), please email:

To show our appreciation for your time and participation, you will have the option to receive a summary of results once the project is complete.

Once again, the contact information for Allyson Clark is:

Thank you! ●