SIGNALLING SUSTAINABILITY: DRIVERS, TYPES OF

SIGNALS AND METHODS

A comparative study between certified and non-certified companies within the UK sustainable fashion sector

by

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DECLARATION

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ABSTRACT

The reasons and ways by which sustainability is signalled to stakeholders have changed over the years. The absence of a common sustainability framework urges companies to act individually in discovering the most suitable signals that covey their engagement with sustainability strategy. This study explores the mechanisms that create a connection between a sustainability signal and the fundamental value it represents, a process identified as a signal fit. The study also focuses on the reasons for signalling and investigates the types of sustainability signals and methods adopted by private companies in general and in the context of the sustainable fashion industry in particular.

Qualitative research was used including observation, unstructured exploratory discussions, and semi-structured interviews with twenty-four companies. The participant companies were grouped into two clusters: certified and non-certified, depending on their official certification status regarding their sustainability practices.

It is shown that companies set their signalling sustainability environment by four underlying drivers: strategic, legitimacy, market, and owner drivers. Companies send out signals of: sustainable manufacturing processes, transparency in processes, and sustainability as a core part of their corporate identity. These sustainability signals are integrated into the marketing mix. The two clusters are revealed to have similarities and differences in the content and structure of their sustainability signalling, and this led to the development of the "signalling sustainability process model". The model explains the process of signalling and concludes that the signalling outcomes of the two company clusters can be different even though their starting points are characterized by similar drivers; certified companies achieve fit and gain positive outcomes, non-certified companies do not. This reality widely affects signalling sustainability structures in their whole environment.

This study extends current CSR and signalling literatures by identifying the drivers, types of signals and methods behind signalling sustainability. It also identifies which homogeneous sustainability signals have a relevant impact on private companies of a small scale.

Keywords: sustainability, signalling, CSR, drivers, transformational strategy, transitional strategy, signalling sustainability process model, heterogeneity, information asymmetry, partial signals

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CHAPTER 1:

INTRODUCTION

1.0   Research area and background of the research study

CSR and sustainability were introduced as concepts for twenty years now (Belz and Peattie, 2009; Werbach, 2011). As a result, sustainability has become part of strategy for many companies and is integrated in corporate communications and signalling. Signalling theory has also been evolving since 1973 when it emerged from a study conducted by Spence, which focused on the context of the job market. Signalling now expands from studying the behaviour of the individual to studying the behaviour of the corporation. One of the applications of signalling theory is how the perspective of a corporation is depicted via corporate communications. The occurrence or absence of a specific signal which implies an underlying quality has an impact on the reputation and prestige of a company (Connelly et al., 2011).

Initially the research begun by understanding the importance of sustainability as a strategic valuable resource; for this reason a significant body of the resource based view literature was studied. This initial comprehension of sustainability as a valuable resource extended the research into an extensive review of the literature of CSR and sustainability and signalling theory. As a result, the present study combines the aforementioned but different and evolving bodies of literature, to examine drivers, types of signals and methods of signalling sustainability within a specific signalling environment. The background of the research area comprises a systematic examination of current literature to explore why current signalling is being constructed, what companies signal about sustainability and investigates the ways that companies send sustainability signals. The research furthers academic knowledge in the area of signalling sustainability by connecting the two literatures.

The reasons and ways by which sustainability is signalled to stakeholders have changed over the years. Corporate culture and governance dictates the level of involvement of a company with sustainability (Walls et al., 2012). Despite such involvement, some companies signal sustainability openly and directly while others do not. As a result of the different reasons and ways to signal, whenever sustainability is signalled to external and internal audiences as a strategic resource for a firm, the signalling outcome can create heterogeneity, partial signalling and information asymmetry.

The literature revealed that there are many reasons why companies choose to signal sustainability. The most important one, however, pertains to the property of sustainability being a complex concept to grasp by both companies and stakeholders, due mostly to the lack of a widely accepted definition of sustainability (Freeman and Hasnaoui, 2010). To this present time, this complexity has not been unravelled by the commonly used sustainability signals (Castelló and Lozano, 2011), or by new ones as noted from the outcome of the present study.

The literature also establishes that there is an absence of a common sustainability framework (Jose and Lee, 2007). This absence of a framework places companies in the position where they need to discover individually the most suitable sustainability signals for their needs, resulting in certain negative outcomes: costs resulting from green-washing (Coleman, 2011; Leiblein, 2011;Brønn and Vrioni, 2001); heterogeneity in the interpretation of signals regarding the meaning of sustainability (Wanderley et al., 2008);differences in significance of signals and opinions of what is the sufficient amount of information to disclose (Gill et al., 2008);information asymmetry and the ways companies respond to it (Connelly et al., 2011); partial sustainability signals(Miles, 2012).

Another aspect established from the examination of the literature, is that setting sustainability antecedents prior to any signalling, helps signals become more effective. Antecedents allow companies to minimize ambiguity in regards to their sustainability strategy (Kirmani and Rao, 2000) and they maximise positive outcomes that sustainability strategy brings.

Some examples of antecedents that emerged from the thorough examination of the CSR literature in the present study include: the establishment of corporate identity in relation to the meaning of sustainability to a firm (Cheng et al., 2007, Maguire et al., 2001); strategic planning of sustainability initiatives (Dentchev, 2004; Sharma and Henriques, 2005; Eccles et al., 2011); following through on corporate sustainability commitments (Gill et al., 2008; Mintel, 2009); developing sustainability as a source of competitive advantage (Hunt, 2011; Epstein, 2009); and identifying which stakeholders to aim sustainability strategy at (Sharma and Henriques, 2005).

When companies use clear and credible signals in order to minimise ambiguity regarding quality connotations, the signals are found to be effective (Pollock and Gullati, 2007). We suggest that the same processes should occur with sustainability signals also. It is proposed that effective sustainability signals offer evidence via corporate actions and relevant information, and bridge any informational gaps between signalling companies and their stakeholders.

1.1   Research aim and objectives

The following research objectives guided the research design:

(a)   Why do private companies that are intrinsically involved with sustainability, signal sustainability?

With complex and non-linear resource values, such as sustainability, signalling is quite a challenging task and this has encouraged new research in this area (Yuan et al., 2011; Castelló and Lozano, 2011; Rämö, 2011). The present research explores empirically the mechanisms that create a connection between a sustainability signal and the underlying quality it represents, otherwise known as *a signal fit* (Connelly et al., 2011). The present study also focuses on the drivers that prompt private companies to signal sustainability.

(b)   What do private companies signal about sustainability?

The second research objective explores what signals companies in a similar Signalling environment send out in order to explain to their stakeholders how they

apply sustainability in their strategy. In other words the study explores the types of sustainability signals.

(c)   The ways companies signal sustainability

Companies are still searching for the ideal way to signal sustainability. The present research explores the methods adopted by private companies in sending out sustainability signals.

Following the examination of the CSR and sustainability as well as signalling theory literatures, four main gaps that are not covered by the current literature were identified. These are:

1. The signalling environment and its importance to the effectiveness of the signalling process (Connelly et al., 2011).

2. The existence of information asymmetry in regards to signalling sustainability (Mintel, 2009; Davies et al., 2010).How information asymmetry affects the effectiveness of signals of private companies that are intrinsically involved in sustainability strategy?

3. What are the reasons that make CSR the right thing to do (Campbell, 2007) and by extension why companies signal sustainability?

4. For those companies that have invested in sustainability, sending credible signals about this commitment to external stakeholders is a challenging task (Colwell et al., 2011). What signals should be sent out and how companies should signal sustainability?

The empirical part of the research study examines the above propositions. The context of the study is the sector of sustainable fashion in Britain. Companies that are intrinsically involved with sustainability in this sector belong to the private category that was examined as part of the empirical study. Twenty four companies were selected as the representative sample of this sector and were divided into two

cluster groups: cluster A: certified companies and cluster B: non-certified companies.

1.2   Contribution of the research study

The contribution of the research study resulted in (a) theoretical implications which advance the literatures of CSR and sustainability and signalling theory, and (b) managerial implications, applicable primarily to the sustainable fashion industry and secondarily to the fashion industry overall.

1.2.1   Theoretical Implications

Theoretical implications from the present study confirm findings of earlier but very recent literature, and also propose new findings of why companies signal sustainability, the avenues they use and the ways they signal sustainability.

Regarding the first research question: "why companies operating within a similar signalling environment signal sustainability?", the present study discovered the following: Overall, companies signal sustainability and are compelled to do so by the following four drivers that set their signalling environment: strategic drivers, legitimacy drivers, market drivers, and owner drivers. The strategic themes that instigate the need to signal sustainability are due to a desire to achieve a competitive advantage, to define a sustainability strategy, to help set a signalling framework and to attract publicity. Legitimacy drivers derive from the company's affirmation of ethical and ecological claims, and its need to achieve assurance to sustainability programs. Market drivers involve the urgency of signals to meet the market demand for information about sustainability and the requirement to set sustainability reporting standards. Owner drivers instigate a set of reasons that urge a private company to signal sustainability which reflect the values system of the owner, shared value of the company and include the owner's core personal beliefs in how to conduct one's business. It is notable that there were similarities and differences in opinion and practice in all four drivers.

As far as the second research question is concerned, "what do private companies signal about sustainability?"the present study reveals that companies send out the following types of signals: signals of sustainable manufacturing processes –new or existing; signals of transparency in processes; and, signals of sustainability as a core part of the corporate identity.

Regarding the third research question which explores "the ways they signal sustainability", the present research demonstrates that they do so by integrating sustainability signals in their marketing mix. The findings reveal that again there are similarities and differences between the two clusters of companies in both the content of their sustainability signals, as well as the ways they signal.

The findings related to the three research questions lead to the development of the signalling sustainability model. The model demonstrates that there are four drivers which urge companies to signal sustainability: strategic, legitimacy, market and owner drivers. Due to the different methods that sustainability signalling is applied by certified vs. non-certified companies, and due to the different types of sustainability signals sent out by companies belonging to the two different clusters, there are two outcomes: certified companies send out homogeneous signals, whereas non-certified companies send out heterogeneous signals. Homogeneous signals achieve signalling fit and when the signalling sustainability process is repeated, they become stronger and more effective. Heterogeneous signals do not achieve fit and thus are ineffective. The literature on signalling suggests that a signalling sustainability fit within a similar signalling environment can set the basis for the development of a signalling platform (i.e. Connelly et al., 2011). Both clusters of companies participating in this study are part of a common signalling environment. However, the study shows that effective and homogeneous signals do not dominate over the ineffective ones in a common signalling environment. Therefore, in the signalling environment of private companies intrinsically engaged with sustainability heterogeneity, information asymmetry and partial sustainability signalling are still prevailing. This reality presents the possibility of the formation of a fully accepted signalling sustainability language and framework, quite a challenging task for companies in the near future.

These findings further emphasize the fact that the need for the development of one coherent sustainability definition is imminent and possibly long overdue, a view shared by many other researchers (i.e. Campbell, 2007). Signalling sustainability will have to commence from the development of a common and detailed sustainability definition, with specific sustainability criteria against which companies can set antecedents and then proceed with structuring signals of their sustainability activities.

The present research also offers the following contributions: It demonstrates that signalling enables a company to develop its selected sustainability strategy. It also identifies which homogeneous sustainability signals have an impact on a company's signalling environment. Moreover, it reinforces the fact that sustainability is a strategic resource because through the process of signalling sustainability a company can differentiate itself from others operating in a similar signalling environment. The present study also explains that signalling sustainability can be used to educate stakeholders regarding the impact of their choices. In addition, the study reveals new findings in types of signals and methods of signalling sustainability applicable to private companies of a small scale.

1.2.2   Industry Implications

There are also several *industry implications* that resulted from our exploration of conditions for effective sustainability signals. Based on our findings, it is concluded that companies which include sustainability in their corporate strategy should examine why they signal sustainability, what do they signal about sustainability, and how they structure their sustainability signals to be coherent and articulate. Furthermore, this research study presents in detail the most commonly recognisable sustainability signals. These signals can comprise the basis of a common signalling sustainability language for companies intrinsically engaged in sustainability and wishing to signal sustainability. It also identifies the areas where there are dissimilarities in sustainability signals that encourage the creation of heterogeneity, information asymmetry and partial signalling; companies should focus on these areas in their effort to achieve signalling fit.

1.3   Structure of the Thesis

The thesis comprises of eight (8) chapters.

Chapter 1 – INTRODUCTION: This chapter introduces the research area and its background, discusses the research aims and objectives, presents the research gaps and puts forward the contributions of the thesis by briefly mentioning the theoretical and managerial implications.

Chapter 2 – SIGNALLING SUSTAINABILITY: This chapter systematically examines the evolving literature with regard to signalling sustainability. This part of the literature review discusses the essence of the structure and the concepts used to signal sustainability. It also reviews sustainability in relation to the signalling process and presents the current content frame of signalling sustainability. It also discusses the typical ways that companies use to signal sustainability and introduces the challenges of signalling sustainability that are currently making such signals less effective.

Chapter 3 –THE ANTECEDENTS AND OUTCOMES OF SIGNALLING SUSTAINABILITY: This chapter discusses findings from CSR and sustainability literatures and presents the antecedents and the outcomes of sustainability strategy. It addresses and elaborates on the antecedents of sustainability that can affect signalling and also explains the positive outcomes emerging from signalling sustainability.

Chapter 4 – METHODOLOGY: This chapter presents the reasoning that led to the selection of qualitative research in order to explore the research objectives. The chapter also outlines the industry setting of the present study: the sustainable fashion sector in the UK. It continues with a presentation of data gathering methods and their different phases. It also elaborates on the selection process of participant companies. The chapter concludes with a discussion of our data analysis procedures, the coding process, the trustworthiness of the data and the limitations of the methodology.

Chapter 5 – FINDINGS / WHY COMPANIES SIGNAL SUSTAINABILITY: This chapter explains the reasons behind sustainability signalling activity by different companies as these resulted from our empirical study. The empirical data explore in depth the similarities and differences that characterise the reasons for signalling

sustainability. Data findings are grouped and classified according to their similarities and differences in signalling between the two constituent cluster groups of companies that comprise the subjects of study of this research, termed as cluster A: certified companies, and cluster B: non-certified companies. Both clusters are private companies intrinsically engaged with sustainability strategy.

Chapter 6: FINDINGS / WHAT DO COMPANIES SIGNAL ABOUT SUSTAINABILITY AND THE WAYS THEY SIGNAL: This chapter presents the findings of the empirical study in order to illustrate the ways used by companies to signal sustainability. Analogously with the analysis and findings of Chapter 5, the two constituent cluster groups of companies studied are cluster A: certified companies, and cluster B: non-certified companies. This chapter identifies the similarities and differences in the way private companies (intrinsically engaged with sustainability) send out sustainability signals.

Chapter 7 – DISCUSSION- THE SIGNALLING SUSTAINABILITY PROCESS: This chapter discusses why private companies that are intrinsically engaged with sustainability signal, and the ways they signal sustainability in order to achieve signalling fit. A discussion is also presented of the consistent and inconsistent reasons and ways that companies signal sustainability, as uncovered by the empirical study. Assumptions from this part of the analysis led to the development the *signalling sustainability process model*.

Chapter 8 – SUMMARY: This chapter presents the thesis summary and the theoretical and details of the managerial implications that derive from the present research. It also elaborates on the limitations of the study and offers avenues for future research.

CHAPTER 2

SIGNALING SUSTAINABILITY:
LITERATURE REVIEW

2.0   Introduction

The objective of this section is to explore the evolving literature with regard to signalling sustainability. This literature review discusses the essence of the structure and the concepts used to signal sustainability. The research starts by analyzing the context of sustainability and by reviewing sustainability in relation to the signalling process. It continues by presenting the content frame of signalling sustainability which reveals that there are differences in the types of signals companies use at present. This section summons the findings from the literature review by introducing the challenges of signalling sustainability, and by exploring the parameters which currently make signalling less effective. The aim of this part of the literature review is to present the current framework for signalling sustainability which is currently fragmented and heterogeneous. Starting from reviewing the literature, this study aims to propose the steps in order to bridge gaps of heterogeneous and fragmented signals. The presentation of the literature with regards to signalling sustainability sets the parameters for furthering the knowledge of CSR and sustainability signalling.

2. 1   What we know about signalling sustainability

The literature reveals the classification of sustainability focused companies into intrinsic, extrinsic and both intrinsic and extrinsic (Moore, De Silva &Hartmann, 2012). The study of the literature proposes that the level and the manner of involvement with sustainability can also be reflected into the way that a company signals its involvement with sustainable development.

For the past twenty years since CSR and sustainability were introduced as concepts (Belz and Peattie, 2009; Werbach, 2011), sustainability as a practice has been evolving. Initially, sustainability was communicated with strategic and institutional signals sent from the company to its stakeholders as a way to inform them about such

practices; it was a one way communication avenue from the company to its stakeholders (Castelló and Lozano, 2011). Later on companies started offering a two-way communication pattern; this was in order to begin a constructive dialogue with their stakeholders (Castelló and Lozano, 2011). Dialogue aims to allow stakeholders to form direct communication with companies, but it also teaches companies how to send out signals that are comprehensible to their audiences. It also permits them to focus on specific interests of their audiences. Stakeholders vocalize such interests through dialogue (Kotler and Keller, 2009). This two way communication is affecting all types of signals, inclusive of sustainability signals. As signalling sustainability is just at its beginning, further research on the topic is necessary. With this analysis we aim to examine how companies perceive their role in regards to signalling sustainability and how through this role sustainability signals are created and sent out. This step is necessary for the development of signalling theory in conjunction to sustainability as it is the stepping stone on which a signalling sustainability framework can be built upon. On an industry implication level, the analysis will demonstrate why and in what ways signalling is constructed, what practices are effective, what practices are not, but also set the path to propose new avenues to create a more effective signalling strategy. As signalling does not only include words and text, but also symbols, images and semiotics, this part of the literature analysis looks at the whole picture of why current signalling is being constructed, and the driving forces behind it. By reviewing the structure of current sustainability signals and by analyzing why and what companies do to transmit these signals we aim to identify what are the reasons that can make signalling sustainability more effective. The literature review concludes by presenting the reasons that hinder sustainability signals, aiming to further our academic knowledge in the area of signalling sustainability.

2.2   Definitions

Before we start with the analysis of the literature, it is important to review the basic definitions of sustainability and signalling, their context and their relationship.

2.2.1   Sustainability

Sustainability-in its broader sense along the lines of environmentally sustainable and ethical design and production- is: *"The development that meets the needs of the present without compromising the ability of future generations to meet their own needs''* (World Commission on Environment and Development, 1987:43). This definition of sustainability has been widely used since it was developed in 1987, and there is no other that has been as widely cited (i.e. Escobar and Vredenburg; H., 2011; Bansal, 2005; Clifton and Amran, 2011; Hunt, 2011; Belz and Peattie, 2009). However, this definition is characterized as "anthropocentric" because it puts the needs and wants of human kind above all the other species inhabiting Planet Earth (Borland and Lindgreen, 2013).

Environmental concern is one of the main discussions of the post 1960s era, affecting all types of industries (Brown et al., 2010; Rivera-Camino, 2007; Van Dam and Apeldoorn, 1997; King and Lenox, 2001). Since the 1970s, new terminology emerges and is been widely used in the business and marketing literature, with terms such as: sustainability, ecological production, green practices, social equity and fair trading. Scholars agree that sustainability can be defined and applied in many different ways: the livelihood of humans and species, the availability of natural resources for the next generations whose economies' growth is relative to the livelihood of the environment, as well as the preservation of ecosystems (Brown et al., 2010; Campbell et al., 2010; Kim and Damhorst, 1999; Anderson & Cunningham, 1972). The concept of sustainability demonstrates that institutional changes in many companies are the aftermath of two main movements:

a. The environmental and the ecology movement (Anderson & Cunningham, 1972, Van Dam and Apeldoorn, 1997; Siegle, 2008; Belz and Peattie, 2009; Hunt 2011).

b. The social movement deriving from a direct reaction from the pressure of stakeholders, which initiated the creation of business ethics and codes of conduct (Sajhau, 1997;Van Tulder, Kolk; 2001; Van Dam and Apeldoorn; 1997, Belz and Peattie, 2009).

a. Sustainability in the context of the environmental and ecology movement

The ecology movement and environmentalism focus upon the protection of the environment and the dominant concept promoted is that Nature is a value in itself; by extent, human acts and behaviour, events, peoples lifestyle and political actions are all directly linked and affect the value of Nature**.** The ecology movement was born in the 1960s with Rachel Carson's *Silent Spring***,** one of the first books to practice social criticism by elaborating on the detrimental effects of pesticides on the environment (Belz and Peattie, 2009). In the 1970s, the environmentalists highlighted issues such as the depletion of the ozone layer, followed by acid rain in the 1980s and deforestation in the 1990s (Anderson and Cunningham, 1972). With the dawn of the new millennium, greater problems have been the focus of environmentalists, which this time have a more global appeal. Such problems include global warming, climate change, greenhouse emissions, and species extinction amongst many others. As a result, the ecology movement presently includes any group, idea or other movement involved in promoting the protection of the environment (Anderson and Cunningham, 1972). It also deals with issues such as the depletion of natural resources, species and energy consumption (Belz and Peattie, 2009; Gladwin et al., 1995; Hunt, 2011).

Eco concerns became the basis of the green movement and environmentalists (Cronin et al., 2011), who expanded their focus towards including additional environmental issues such as the depletion of species, the destruction of natural habitats and ecosystems and the increase of poverty conditions in third world countries (Belz and Peattie, 2009:29). As a result, the sustainability concept was born, which *"embraces the idea of sustainable development, which requires a change in the behaviour of virtually everyone, including both producers and consumers"* (Belz and Peattie, 2009:30), while at the same time encouraging economic growth (Hunt, 2011; Cronin et al., 2011). Recent studies further sustainable development to an *"eco-centric epistemology, that offers an alternative cultural and mental framework that focuses on the whole ecosystem and the balance of all species and elements"* (Borland and Lindgreen, 2013:174). This view suggests a closer approach to strategy development which is not anthropocentric anymore, but inclusive of the needs and wants of an ecosystem in its entirety (Boland and Lindgreen, 2013).

b. Sustainability in the context of social movement and changes

Starting in the 1970s and reaching a peak in the 1990s and 2000s, there was criticism about the way companies were conducting business operations in regards to sourcing and human resources management (Fletcher, 2008). Many companies were outsourcing their manufacturing, in order to increase profit margins by capitalizing on low labour costs (Bhardwaj and Fairhurst, 2010). Often, they were not paying attention to how materials were sourced, or to the working conditions employees were enduring in host countries, while some companies established business relationships with countries where the political situation was illegitimate (Van Tulder and Kolk, 2001). In many occasions companies turned a blind eye to cases where unethical business conduct was carried out. When such cases were exposed, public opinion exerted great pressure to companies to change their business practices (D' Astous and Legendre, 2009). An example is the case of Levis in the 1970s and 1980s (Sajhau, 2000). During that time, the company was associated with overseas manufacturers who were abusing basic workers rights in order to be able to offer competitive prices (Wong and Taylor, 2000). The result was that Levis' client base became more fragile and customers fled away and Levis lost credibility and their corporate reputation was damaged due to negative publicity. Since then, Levis sustainable development strategies and PR have gone into great lengths to regain the trust of stakeholders (Wong and Taylor, 2000).

The Levis example is one of the typical public opinion pressure campaigns that lead to national and international intervention by governments, non-governmental institutions, human rights campaigners, and consumers, all resulting to the initiation of codes of ethics and conduct about human resources and sourcing management(Sajhau,2000) One example is the case of the International Labour Organization which formed a Tripartite Declaration of Principles on Multinational Enterprises and Social Policy in 1977. This Policy - still applicable today - is quite important to trade unions and companies in the retail sector (Sajhau, 2000).Most codes emphasize the promotion of worker and human rights doctrines, but they also have specific directories about the protection of the environment, natural resources and animal welfare. Examples include: the codes of the American Apparel and Footwear Manufacturers Association, and the Fédération Internationale de Football (Tulder and Kolk, 2001). Such examples, amongst many others, illustrate that social and ethical debates have a dominant role in

today's business conduct, resulting in more companies looking at their ethical conduct, ameliorating it and signaling about it (D' Astous and Legendre, 2009).

As the traditional model of economic growth for companies is not sufficient anymore (Gladwin et al., 1995), companies need to think of business along the triple bottom line principle -ecological, social and economic- which makes a company honourable, a fair player and able to offer economic prosperity with its products (Bansal, 2005). As sustainability is directly linked with concerns for the environmental and social impacts of a company's actions, it becomes the umbrella where Corporate Social Responsibility (CSR) and Corporate Social Performance (CSP) belong, even if CSR and CSP have been around much longer as definitions than sustainability has been (Belz and Peattie, 2009). CSR is defined as the "*context-specific organizational actions and policies that take into account stakeholders' expectations and the triple bottom line of economic, social and environmental performance*" (Aguinis and Glavas, 2012:933). CSP on the other hand is: "*a business organization's configuration of principles of social responsibility, processes of social responsiveness, and policies, programs, and observable outcomes as they relate to the firm's societal relationships*"(Wood, 1991:693).Ultimately sustainability embraces both CSR and CSP concepts in a holistic way (Belz and Peattie, 2009).

Sustainability is the holistic concept which involves activities and issues tackled by CSR and CSP respectively (Belz and Peattie, 2009) because it "*integrates social and environmental concerns in companies' business operations and in their interaction with stakeholders on a voluntary basis*" (European Commission, 2001:4). Companies around the world are reviewing the positive outcomes in performance that strategy focusing on sustainable development can bring to a company. They also review the negative consequences of being associated with environmentally harmful or unethical practices (Cronin et al. 2011; Bansal, 2005).

All the same, the definition of sustainability is still a fluid concept and quite vague. Sustainability and CSR in particular, do not have one accepted definition because they are fragmented in their analysis (Aguinis and Glavas, 2012). They are also concepts constructed by society; society can be fragmented in sub-groups on a national and international level (Freeman and Hasnaoui, 2010). Therefore, sustainability develops

within a specific context directed from the angle in which it is practiced and examined: it is analyzed through the angle of stakeholders, or IT applications, or HR issues. It is also defined in relation to organizational behaviour, or how it is applied in marketing strategy (Aguinis and Glavas, 2012). A recent study also discusses sustainability as part of an eco-centric marketing strategy, which promotes sustainable development from a holistic ecological stance inclusive of all participants of a given eco-system (Borland and Lindgreen, 2013). Depending on how it is analyzed, perceived, or applied, sustainability can mean one thing or another. In the case of communications for example, semiotics and images play a significant role in how sustainability is signalled from one geographical location to another; such factors allow sustainability to be defined in various ways (Freeman and Hasnaoui, 2010).

In the UK, where this study is taking place, there is still no official definition of CSR which companies can use as a guideline for sustainability development. Companies rely on the definitions of various NGOs, or use the ISO 14001 and the ISO 26000 standards to measure their environmental impact (Dickson et al., 2012). Companies develop sustainability programs based on their own initiative assisted by independent institutions which campaign for the establishment of CSR and sustainability standards (Freeman and Hasnaoui, 2010). For the purposes of this study, the author surmises that a definition of sustainability combines all three elements – environmental, social and economic- with pro-environmental activities as a priority. Pro-environmental activities have certain dimensions that set them apart from ethical and social activities. As they are more technical, they need specific technical expertise and investment while they can also be shadowing specific government regulations (Walls et al. 2012). The environmental resources that a company develops in its strategy improve its environmental performance (Walls et al., 2012) and affect its overall performance (Gao et. al. 2008; Mallin et. al., 2012), including its financial outcomes (Russo and Fouts, 1997; DiMaggio & Powell;1983, Shrivastava et. al., 2001; Mitsuhashi and Greve, 2009; Berrone and Gomez-Mejia, 2009), and the establishment of a positive reputation (Brønn and Vrioni, 2001; Eccles et. al, 2011).

Moreover, from a philosophical stand point, ethics cannot stand alone; they are part of the general welfare of the environment and non-human species. The natural world is at least as important as human beings are. Environmental ethics claim that *"we humans*

are not so "enlightened" as once supposed, not until we reach a more considerate ethic; that is the natural environment that surrounds us" (Rolston, 2003: 518). Without a surrounding natural environment nothing can exist as we are all part of it (Rolston, 2003).

Focusing on the environment sets goals towards applying and improving legislation and aiding towards the formation of specific reporting frameworks (Bansal, 2005; Gao et al., 2008). Such frameworks are helpful because they quantify the "burden" companies and their stakeholders impose on the environment with their actions (Giltsoff, 2009). Such actions are followed by building corporate measures to tackle environmental challenges but they still allow economic growth(Munoz, 2000). This activity eventually leads companies to plant their development along sustainability parameters (Munoz, 2000), but will enable future generations to *"meet their future own needs"* (WCED, 1987:43).

2.2.2   Signalling Theory

Signalling theory suggests that companies *"will use costly signals to communicate underlying qualities or intentions to those who may desire to know such information"* (Connelly et al. 2011:41). *Signals* are actions that parties take to reveal their "true types" (Kirmani and Rao, 2000:66). Signals communicate corporate decisions in regards to corporate strategy development to various stakeholders –primary and secondary- including the public.

The concept of market signals and signalling was initially introduced by Spence in 1973, as he applied it to the context of the job market (Connelly et al., 2011, Boulding and Kirmani, 1993). Signals according to Spence's theory are: *"those observable characteristics attached to the individual thatare subject to manipulation by him"* (Spence, 1973:357). The signal of costly education identifies a high quality candidate for employment to an employer therefore to be able to acquire such a qualification the candidate must incur the cost (Spence, 1973). Signals, when applied in the context of a corporation, are distinctive attributes linked to the corporation's underlying quality of its strategy (Connelly et al., 2011), which can be manipulated by the corporation in order to reduce information asymmetry, because usually the sender of the signal does

not have the same level of knowledge upon a topic/strategy/action as the recipient does (Spence, 2001). The theory supports that through signals two things happen: attributes of candidates are measured by prospective employers, and companies use these metrics in order to advertise and hire the most appropriate candidate. In that way, a company minimizes the risks involved in hiring, by being able to predict the productive capability of a candidate (Spence, 1973; Gao et al. 2008).

Important elements for signalling lie within the quality (Spence, 1973; Stiglitz, 2000), quantity (Connelly et al., 2011) and way a signal is structured (Certo, 2003). In other words, the signal aims to bridge the gap of information asymmetry between the two parties involved: the signaller and the receiver (Spence, 1973; Connelly et al., 2011). Information asymmetry between the two parties can be minimized when the signals are effective (Spence, 1973). In order to obtain effective signals, the information they communicate must be identifiable and continuous, unchangeable, costly to be altered, inimitable and to reduce the information asymmetry gap between the ones that send it to the ones that receive it(Riley, 1975; Spence, 1973, Gao et al., 2008). Attributes that are observable and cannot be altered are *indices*. Everything else that a potential candidate can manipulate, according to the specifications of the job,   become *signals* (Spence, 1973, 2001). One of the initial signals is education: job candidates present their education in a way they feel is best suited for the job they are applying for. Education involves certain costs in being acquired and is an investment that a candidate makes. For example when a candidate selects what type of education he/she will be getting, he/she also thinks about it in terms of wage returns, i.e. as a return on investment (Spence, 1973).

Signalling theory expands from studying the behaviour of the individual to studying the behaviour of the corporation. One of the applications of signalling theory is how the perspective of a corporation is depicted via corporate communications. The occurrence or absence of a specific signal, which implies an underlying quality, has an impact on the reputation and prestige of a company (Connelly et. al., 2011). Presently, signals are present in all the forms that comprise the product/service or corporate marketing mix (Kirmani and Rao, 2000). Literature suggests that what a company is doing (company actions) and what others are doing (competitor actions), activities which are communicated via signalling (Basdeo et al., 2006), builds corporate reputation (Dentchev, 2004). A company's distinctive attributes – signals – are

directly linked to the formation of its reputation and affect the company either positively or negatively (Gao et al., 2008).

a.   The signalling process

Signalling involves the exchange of a message from the transmitter to the receiver. As it is a two way process, the transmitter of signals (the company) and the receivers of signals (the company's stakeholders), are always involved in this process (Dentchev, 2004). The company must select when and what signals to send out and the recipients are required to respond to this signal. Their response is the way they interpret it (Connely et al., 2011). An effective signal occurs when the recipients interpret it in the same way that the senders intended them to do so. There is no miscommunication and no information asymmetry between the two parties (Spence, 1973). Once a signal has been received, the recipient sends out feedback to the signaller. This means that the signal has been identified and acknowledged by the recipient (Connely et al., 2011).

Figure 1.1: The Signalling Process
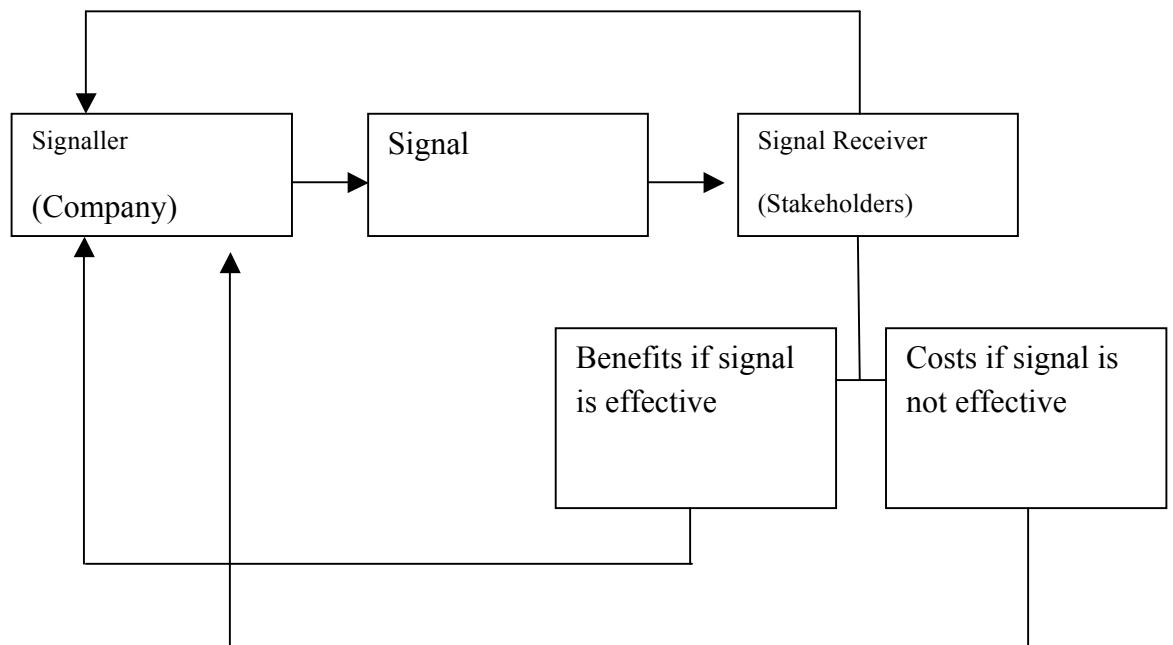
An effective signal is not just identifiable only if one can observe it easily (Gao et al., 2008; Connelly et al., 2011). It needs to obtain other attributes similarly important: it must be continuous and unchangeable in order to create rapport and continuity (Gao et al., 2008). It should not be easily altered because that involves a high cost (Spence, 1973). As it involves costs to be created, and is costly to be altered, it is difficult to be imitated by others (Gao et al., 2008; Riley, 1975; Spence, 197). According to the

signalling theory therefore, if a signal obtains all these attributes mentioned above, the signal most possibly reduces the information asymmetry that often exists between the sender and the transmitter (Gao et al., 2008; Connelly et al., 2011). Information asymmetry exists for many reasons: (i) the sender usually has more information and knowledge about a product/service/process than the receiver, (ii) inside information is usually signalled to the outside world after a closely monitored process, while (iii) things that companies usually signal about are of a positive context (Connelly et al., 2011).

As figure 1 above demonstrates, and in conjunction with the theory, signalling sustainability is aimed at a company's *stakeholders*, primary and secondary. The theory suggests that any given company will create signals aimed at specific audiences (Spence, 1973), in other words stakeholders. Depending on how influential a particular stakeholder is to a company, and how the company's viability in the marketplace is affected by this influence, stakeholders belong to a primary and secondary category (Sharma and Henriques, 2005). Some stakeholders are independent from the company, others are dependent on the company and sometimes the company is dependent upon a specific group of stakeholders (Sharma and Henriques, 2005). Stakeholders, who directly affect corporate performance and the company directly depends on them, influence strategy and are primary stakeholders. Secondary stakeholders influence a company's strategy partially and indirectly through other primary stakeholders, but they do not have direct power over the resources that a company needs in order to function (Sharma and Henriques, 2005).

In any given environment, signalling is usually designed with primary stakeholders in mind (Sharma and Henriques, 2005). On occasion a company will send out a certain type of signal to primary stakeholders and another type of signal to secondary stakeholders. These different signals are the result of the particular relationship a stakeholder group has with a company (Sharma and Henriques, 2005). An example of signalling towards primary stakeholders is the signal conveyed through an IPO prospectus at the time of an IPO (Initial Public Offering) event; through an IPO prospectus a company communicates about its strategy, its product/service mix as well as its organizational structure. The company signals its value towards possible investors (Gao et al., 2008), who if they invest, they will be directly affecting company

performance as primary stakeholders usually do (Sharma and Henriques, 2005).When a film studio produces a movie trailer, the trailer which becomes the signal, provides potential viewers with a taster session of what the movie is all about. This signal targets primary audiences/stakeholders, who are the people who eventually will view the movie, but also the greater audience. The second group might or might not view the movie as the primary one will; but depending on their reaction to the trailer, they might influence the overall quality perception in regards to the movie studio which produced the movie; their reaction can affect the overall reputation of movie studio in regards to quality (Basuroy et al, 2006). This is an example of signalling towards secondary stakeholders.

Therefore, a company develops direct or indirect signals, depending on which type of relationship it has with a particular stakeholder group. The challenge is to reduce information heterogeneity between signaller and receiver in order to achieve effective signalling (Connelly et al., 2011). But when there are markets or market platforms with information gaps between senders and receivers we have ineffective signalling (Spence, 2001). In the case of sustainability as a platform for corporate excellence and a resource of competitive advantage informational gaps are significant as we will find out in the next section: the relationship between sustainability and signalling. This relationship is important for the following reasons (i) in order to indentify how companies send out signals of sustainability strategy to their stakeholders, (ii) whether these signals are effective and (iii) what have been the predominant signalling patterns in this relationship.

2.3   The relationship between sustainability and signalling

Any given company intrinsically or extrinsically engaged with sustainability will use one, or more signals to communicate fundamental intentions and actions in regards to its sustainability activity (Basdeo et al., 2006). A company will usually send out a signal with a sustainability related strategic action. Once the signal reaches the receivers (the stakeholders), the latter are bound to signal back their point of view or their impressions on that strategic action. Stakeholders might respond positively or negative to such an action. In that way their returning signals can affect the

development of strategy (Basdeo et al., 2006).The primary receptors of signals are the ones who are interested to "*know such information*" (Connelly et al. 2011).

2.3.1   Primary Stakeholders

In the case of sustainability, primary stakeholders will want to know information about sustainability in corporate strategy. Such audiences or in other words primary stakeholders are: company customers, employees, suppliers, financial institutions, and key company managers. There are also: insurance companies and communities directly affecting corporate strategy, such as governmental institutions, or NGOs affiliated with a company's resources (Mintel, 2009, EFC, 2009). These stakeholders are one of the reasons that a company builds unique and strategic resources (Dentchev, 2004), such as sustainability initiatives (Kogut and Kulatilaka, 2001).

2.3.2   Secondary Stakeholders

Sustainability signals are sent to secondary stakeholders as well. When signalling sustainability, secondary stakeholders are the general community or potential new customers that the company has yet to develop products for. Besides the general public, a company might also count specific NGOs, the media, secondary suppliers, investors, government bodies, and local communities as part of the body of its secondary stakeholders (Campell, 2007;Sharma and Henriques, 2005). The difference with the primary stakeholders is that these audiences are not directly involved with a company's actions but need additional stakeholders to influence corporate strategy (Sharma and Henriques, 2005). It is worth noting, a secondary stakeholder can become a primary one when at some point the stakeholder affects the development of a company's sustainability strategy directly. An example is the case of an international organization, such as the Kyoto Protocol, which through its community and pressure groups, affected the development of sustainability strategy of many global companies (Sharma and Henriques, 2005).

2.3.3 Sustainability signals for information management

Sustainability signals for some companies become a factor of information management (Burt, 2000; Gill et al., 2008). We know that through signals a company aims to build confidence in its actions (Pollock and Gulati, 2007), and this can be also be applied in sustainability signals as well. The literature reveals that sustainability actions offer the opportunity to set a company apart from its competition (Walls et. al., 2012). Engagement with sustainability keeps one's place in the market long term (Walls et al., 2012), improves one's brand reputation (Lindgreen and Swaen, 2010) enables companies to increase prices and access better investment packages (Freeman, 1984; Fombrun and Van Riel, 1996). How this activity is reinforced is through signalling.

2.4 How sustainability is signalled – A review

Current literature suggests that corporate culture and governance dictates how involved a company is with sustainability (Walls et al., 2012). But, even if for many companies engagement with sustainability and CSR practices are part of their corporate strategy (Campbell, 2007) there are many companies that signal this engagement in sustainability less openly than others; some companies signal sustainability openly and directly and other ones indirectly. This signalling behaviour creates heterogeneity in the way sustainability is depicted as a strategic resource for a firm from external and internal audiences. This heterogeneity is also evident by the way sustainability is signalled: for some companies sustainability signals emerge to the forefront of the communications for others they do not emerge.

One of the reasons for which companies signal or not signal sustainability could be linked to whether their engagement with sustainability is instigated by internal reasons or by external forces (Moore, et al., 2012). On some occasions even if the focus in strategy is evident and sustainability becomes a strategic resource for a firm, signalling may not be reflecting how important sustainability really is to a firm. Sometimes companies are confused on what to signal about, because sustainability is an intricate business practice (Gardetti and Torres; 2012, Mittal, 2007). Other times, managers are puzzled by what sustainability exactly means for their companies as an added value (Schmitt and Renken, 2012). But above all, the reason why there is heterogeneity in

signalling sustainability is because: sustainability is a complex concept to signal about due to the lack of a widely accepted definition and understanding from companies and their stakeholders (Freeman, and Hasnaoui, 2010; Campbell, 2007). To this day in time, this complexity is not unravelled through commonly accepted rhetoric construction of CSR or commonly used sustainability signals (Castelló and Lozano, 2011) either.

2.4.1. Sustainability is a complex business concept

As mentioned previously, sustainability emerged about twenty years ago as a strategic concept and a movement (Belz and Peattie, 2009; Werbach, 2011) as a strategic resource (Hunt, 2011; McWilliams and Siegel, 2001) and a source of competitive advantage (Porter and Van der Linde, 1995). However, sustainability has various interpretations and applications (Mintel, 2009). Presently, there is a no "*fully recognized set of specific criteria*" for sustainability (Mittal, 2007:265). It can found in physical capital resources (Makadok, 2001); in human capital capabilities (Crittenden et al, 2011); and organizational capital properties (Burt, 2000; Buysse and Verbeke, 2003; Gill et al., 2008). These different applications of sustainability: physical, human and organizational (Hunt, 2011), result in heterogeneous expectations from companies, their operating environment, and their stakeholders (Campbell, 2007). Therefore and due to these heterogeneous characteristics, not all companies interpret or apply sustainability in the same way (BCG, 2009). The assumption is that this pattern reflects into signalling sustainability as well.

Heterogeneous characteristics of sustainability result in companies practicing sustainability according to where the heart of their organization lies (Tseëlon, 2011). Some companies place more emphasis on the socioeconomic and ethics angle of their sustainability agenda, whereas some others place more emphasis on the environmental aspect of sustainability (Moore et al., 2012). Heterogeneity in sustainability is also a result of how feasible its implementation becomes along existing plans of corporate financial development (Eccles et. al., 2011; Moore et al., 2012). Other times, signalling sustainability depends whether it ties with existing brand equity values (Tseëlon, 2011).Companies are fragmented in how they interpret and apply sustainability (Moore et al., 2012; Freeman and Hasnaoui, 2010), but also in how they

measure it (Jose and Lee, 2007). A study by Peloza in 2009 showed that there are 36 different ways of measuring the effectiveness of a CSR strategy (Aguinis and Glavas, 2012).

Therefore, CSR and sustainability's many angles and metrics further support the argument that sustainability is a complex business concept. The result is that the language and imagery used to communicate sustainability is inevitably fragmented and vastly heterogeneous (Rämö, 2011; Baden and Harwood, 2012).

2.4.2   Sustainability in rhetoric and image construction

One way that sustainability signals are sent out to primary and secondary stakeholders are through the rhetoric construction of CSR and sustainability claims (Castelló and Lozano, 2011). Rhetoric construction includes the way language and images are constructed to signal important strategic resources of a company, such as sustainability and CSR initiatives. There are there are three main ways that rhetoric construction is conveyed: strategic, institutional and dialectic.

With strategic rhetoric the company signals that it is a trustworthy firm. With institutional rhetoric it signals that it is an accountable company, and with dialectic rhetoric the company signals that it wants to open up dialogue with its stakeholders on environmental and ethical issues (Castelló and Lozano, 2011). The two former approaches are considered as more traditional, whereas the latter is the one that is currently preferred by the leaders in sustainability strategy development and communication (Castelló and Lozano, 2011).

For some companies this intention to open up dialogue with stakeholders is an action representing the virtue of considerateness towards them (Rämö, 2011), and ultimately to the whole environment the company operates in. These days, with interest in CSR and sustainability issues developing (Aguinis and Glavas, 2012), a company needs to adhere to the needs of the environment it operates within to survive. If it does not act sensibly and sustainably towards its environment it may not be around for much longer (Belz and Peattie, 2009). This position describes a company's ethos that engages in business by caring for its environment and the society it operates within, and becomes

a company that foresees future stakeholder needs and reacts accordingly (Rämö, 2011). Therefore, considerateness urges a firm to engage with sustainability(Rämö, 2011), while such actions are illustrated visually and through corporate communication in the form of signals.

2.4.3   Sustainability in sale independent default-independent signals

Besides the route of CSR and sustainability claims and reports (Castelló and Lozano, 2011), signalling sustainability in rhetoric and imagery can also be conveyed through "*sale independent default-independent signals*" (Kirmani and Rao, 2000:69).The term sale "*independent default-independent*" implies that a signal is used regardless of whether a product will be purchased or not (Kirmani and Rao, 2000). The reason behind why sustainability signals are sale independent default-independent signals is because sustainability has a positive effect on overall company performance (Aguinis and Glavas, 2012) and on a multidimensional level (Dentchev, 2004; Gao et. al., 2008; Lindgreen and Swaen, 2010; Eccles et. al., 2011; Walls et al., 2012). A presentation of the most common sale independent default-independent signals is found in section 2.6.

2.5   The absence of a framework for signalling sustainability

As sustainability is an accepted practice adding value to a company (Schmitt and Renken, 2012; Aguinis and Glavas, 2012), companies are encouraged to report upon their environmental and ethical initiatives (Mallin et al., 2012) and to send sustainability signals through CSR reporting (Jose and Lee, 2007). Such reporting focuses on information about the locations and the manner these companies produce and source their products, and whether they comply with the expectations of modern western society (Hoivik, 2007; Jose and Lee, 2007). In highly competitive industries, stakeholders, partners and consumers have begun paying attention to a company's performance under a triple bottom line spectrum, and constitutes this reporting essential (Lindgreen and Swaen, 2010). By acknowledging stakeholders expectations and by acting upon them (Mallin et al., 2012), companies grow their positive reputation (Lindgreen and Swaen, 2010) and become even more competitive. In addition, pro-environmental activities from companies can become the pillars of

setting up environmentally friendly legislation, which governments can develop on a national and international level (Bansal and Roth, 2000).

Companies which are recognized by stakeholders as the "shakers and movers" of sustainability in their industry, have the advantage of holding the leading reputational role in sustainability development (Neville, et al., 2005)against their competition in the minds of their stakeholders. For them, sustainability is part of their core company strategy and essence (Grayson, 2011). In other words they are companies that are intrinsically and intrinsically/extrinsically involved with sustainability(Moore et al., 2012). However as we have already discusses there is heterogeneity in how sustainability is measured and how it is signalled.

What heterogeneity in signals reveals is that there is no universal framework for signalling sustainability. This does not only apply to a corporate level (Jose and Lee, 2007), but also to a national and international one (Williams, 2012). An example is *Beyond 2015*, a campaign which represents the view of major organizations such as the WWF and other such institutions. Currently, *Beyond 2015* is used as a guideline on which the outcome of the Rio+20 UN Summit is based on. But it is still a guideline and not a framework. This fact verifies lack of a common framework in regards to sustainability signals (Williams, 2012). One of the issues that *Beyond 2015* stresses out for companies that are looking into the future of a sustainable future, is that is important to help to develop a framework of goals, on an institutional and national level by using sustainable development as an underpinning (Williams, 2012). With the UN as the legitimate and representative governing body in a global level, *Beyond 2015* suggests that companies and nations should develop a framework of policies, measurements, transparency, and communication with stakeholders (Williams, 2012).
In the meantime, companies signal sustainability through covert and overt signals to communicate the strategic importance of sustainability to them (Rämö, 2011). Each company sets their own framework for signalling, and relies on its own resources and initiatives in order to design their signals (Jose and Lee, 2007). Unfortunately, heterogeneity in signals compromises their strength and efficiency (Connelly et. al., 2011).

Signals strength is moderated by the signalling environment (Connelly et. al., 2011) which in this case is the environment where companies engaging in sustainability and CSR strategy operate. Dissimilar reporting schemes in regards to CSR (Aguinis and Glavas, 2012), dissimilarities in reporting due to inconsistencies in how sustainability is practiced and signalled across country boundaries (Freeman and Hasnoui, 2010), or within an industry (Moore et al., 2012), are some of the challenges which compromise the effectiveness of signals. For example, we learn from the literature that dissimilar sustainability reporting schemes weakens sustainability signals when companies sell products internationally (Freeman and Hasnaoui, 2010; Gill et al., 2008; Campbell, 2007). Dissimilarities within an industry can also compromise signals as CSR remains a contested topic between large and private organizations. Private organizations feel that current CSR signals are not useful to them as they were initially created to cover disparaging practices of larger companies (Baden and Harwood, 2012). Current CSR signals do not represent the sustainability initiatives private companies take on(Baden and Harwood, 2012).

Therefore, the issue the absence of common sustainability framework (Jose and Lee, 2007), leaves companies in the position to try and find the best sustainability signals for them individually, in order to gain more legitimacy for all their efforts in that area (Castelló and Lozano, 2011). Table I below presents representative examples of the academic literature that has engaged with the frame of the narrative of CSR and sustainability. Even if the majority of these articles belong to the literature body of CSR, nevertheless their findings can be also applied in the body of work in regards to signalling sustainability.

Table 2.1: The Content Frame of signalling sustainability

CONTENT FRAME	CONTRIBUTION	GAP	AUTHORS / YEAR
Classification of Companies into intrinsically motivated, extrinsically motivated, intrinsically and extrinsically motivated	The result is that intrinsically motivated firms will or will not strategically invest in CSR. Similarly some extrinsically motivated firms might invest even if these firms are not thought that they will.	Why a company that perceives CSR as valuable fails to quantify its value	Moore et al.,2012
How ethical structures are implemented their clarity to the firm's reception of them.	There are four clusters of firms depending on their ethical structure: Superlatives, Core Proponents, Pain and Gain and Deficients	How companies belonging to a specific cluster deal with particular sust. scenarios	Morris et al., 2002

Shared value (in the form of sustainability) offers valuable business opportunities especially for SMEs	Managers should be clear about the meaning of value CSR orientation	Follow up studies in strategic single elements that affect shared value from sustainability	Schmitt and Renken, 2012
There is a fit between CSR initiatives and external stakeholders, existing business practices and CSR and a fit between the coherence of the CSR practices leads to seven patterns of internal consistency.	These seven patterns provide managers a menu of options to match their business strategy with CSR related initiatives.	How can signalling contribute in the effort of matching a business strategy with CSR related initiatives to create value	Yuan et al., 2011; Dickson et al., 2012
Process of searching for new forms of CSR legitimacy through corporate discourse	CSR rhetoric strategy is divided in three components: strategic, institutional and dialectic CSR.	How companies make sense of their role and how this is evolving through time	Castellóand Lozano, 2011
Phonetic action in organizations is subjected not to textual documentation also to visual expressions. The study addresses the symbolic and contextual signification of images in CSR	Still organizations try to convey a desirable image (with text and pictures) both internally and externally. The use of well-known typology of icon, index, and sign in a study of how phronetic action is communicated visually in CSR reports gives the following forms of responsibility oriented acting: Acting wisely in relationship with the environment and when producing and distributing products. The symbolic signification of images in CSR reports resonates from the associations to which they are associated with a particular context.	The interplay between visual and rhetoric signals is in need for further research	Rämö, 2011
The content of corporate environmental disclosure includes: environmental planning considerations, management support to the institutionalization of environmental concerns and structures, organizing specifics, environmental leadership activities, environmental control, and external validations	1. The majority of the companies today consider environment as an important strategic planning consideration.2. Many companies in associate environmental considerations with corporate sustainability and stakeholder responsiveness, and most of them justify their environmental programs based on competitive advantage reasons (27%) than for compliance reasons (21%).3. Corporations need to consider environmental planning not only as a top priority, but also use specific targets and objectives to guide their environmental planning efforts.4. Companies need to include different stakeholders. 5. Some companies are partnering with NGOs. 6. Voluntary environmental disclosures are becoming popular among companies.	Are companies really doing everything they are reporting?	Jose and Lee, 2007
Highlight the importance and the impact of terminology, language and semiotics used to describe CSR & sustainability.	CSR remaining an essential contested concept. CSR is ambiguous, and lit suggests that CSR is something to aspire to when finances permit sustainable development remains a "dialogue of	There is need for the development of better language to communicate what is wrong and what is right	Baden and Harwood, 2012

	values" that defies consensual definition developers of CSR language take advantage of those ambiguities. SMEs don't agree with that approach, because the rhetoric of sustainability has been used to mask destructive practices by corporations. Current CSR language is not useful to SMEs. It is suggested that ethical footprint is a better term.	in sustainable development	
Companies signal leadership by looking at both the short-term and the intermediary of NA companies included and removed from the Dow Jones Sustainability impact	The results indicate that being added to the DJSI results in a sustained increase in a firm's price but this effect is eliminated within the next 10 trading days	The DJSI is an effective way to signal sustainability short term. Research is necessary to define more effective ways	Robinson, Kleffner, and Bertels,2011
The definition of CSR is not consistent across national boundaries, but the definitions are consistent within countries.	The practice of CSR in the world of the practitioner is dependent on how the term is understood. The understanding of the term is dependent upon the semiotics of the language, which differ due to culture, politics, economics, social, and institutional frameworks that may cross national boundaries, creating different meanings in different regions of any one country.	For those companies that have invested in sustainability it can be a challenge to signal credibly this commitment to external stakeholders	Freeman and Hasnaoui, 2010
Codes of ethics on perceptions of ethical behaviour affect employee behaviour.	The corporate code of ethics has an important influence on the perceptions employees have about the ethics in their organization.	More research is needed in the environment of code of ethics as a function of an industry	Adams, Tashchian and Shore, 2001
How and when signals about ethics affect dealing with suppliers	If the cost to switch suppliers is high, this will affect signalling	Further research should investigate genuine vs. strategic use of ethical code enforcement as a signal	Colwell, Zyphur and Schminke, 2011
Economic conditions and how intense competition affects CSR behaviour	The rise of a globally oriented economic environment encourages companies to smooth the progress of CSR	Identify the reasons that make CSR either the right thing to do or convince managers that it is to their self interest	Campbell, 2007

Furthermore, a few representative articles from the CSR and sustainability literature can also be grouped by the common themes that emerge about the frame of content of companies, engaging with sustainability, seem to present. These common themes become the compass which leads to further assumptions of how signalling is affected by: different levels of engagement with sustainability, many prevailing CSR structures and interpretations, challenges in signal importance and depiction, and the multitude

not only of sustainability interpretations, but also by the significance of such signals. These common themes are presented in table 2.2:

Table 2.2: Common themes in the content frame of signalling sustainability

COMMON THEMES OF SIGNALLING SUSTAINABILITY	AUTHORS
Different level of engagement with sustainability, affects the quality of the engagement with sustainability	Moore et. al., 2011
Ethical structures and CSR definition define the clarity of sustainability practices. Clarity offers strength in signals	Morris et al., 2002 ; Robinson et. al., 2011 ; Connelly et al, 2011
There are different challenges for a company to meet when signalling sustainability depending to whom it is sending signals: stakeholders, employees, or suppliers.	Adams et al., 2011 ; Colwell et al., 2011
Stakeholder pressure defines sustainability angle and managerial patterns. Every stakeholder group can affect the signalling process	Sharma and Henriques, 2005; Yuan et al., 2011; Aguinis and Glavas, 2011
How one says something and how one uses imagery to support what you are saying affects the quality of your signal	Rämö, 2011
A quality signal is a strong signal. Credibility also affects the strength of a signal	Connelly et al., 2011; Aguinis and Glavas, 2012; Certo e. al., 2001; Sharna and Henriques, 2005
CSR language at its current depiction does not serve the purpose of quality signalling as far as entrepreneurs and small companies are concerned	Baden and Harwood, 2012
A signal can have many meanings and it is moderated through the signalling environment. The signalling environment can change as signaling keeps evolving	Connelly et al, 2011; Aguinis and Glavas, 2012

Besides the obvious dissimilarities in sustainability signalling, there is however some common ground which arises by the synthesis of CSR literature in conjunction to signalling behaviours: By using the narrative, as well as images and other such signals, a company is able to set the following guidelines, or else *depending factors*, which are essential for setting up its own signalling framework:

- It defines itself through its engagement with sustainability practices and ethos, and through its signals it announces that belongs to a specific cluster or a group

- It explains to its stakeholders the reasons why it engages in sustainability and how it avoids unethical behaviour

- It allows a company to look at its future in respect to growth.

2.5.1. Signalling defines an association with a cluster

Sustainability narrative defines the importance of the latter as part of corporate strategy; it also defines how corporate disclosure affects its development (Jose and Lee, 2007). The narrative defines the *cluster* in which company belongs to (Yuan et al., 2011). A cluster is defined as a group of companies with similarities in interests, such as engagement with sustainability. Research shows that in the area of business ethics there are four clusters: the *'Superlatives'*, a group that is heavily engaged in ethics and ethical policies, the '*Core Proponents'*, which is a group that has ethical practices in place but lacks fundamentals to fully implement them, the '*Deficient'*, which is the group that has the least engagement with ethical policies, and the '*Pain and Gain'* group which also takes ethical policies quite lightly (Morris et al., 2002). When a company signals about complying with societal and environmental expectations of the firm and the environment it operates within (Yuan et al, 2011), is also a signal to which cluster the company belongs to. For private enterprises for example the companies which perceive sustainability as a necessity in order for development belong to the cluster of the '*Superlatives'*. Sustainability for them is part for their strategy and they will formally or informally communicate this stance through various signals, such as text and images. This rhetoric journey underpins their considerate actions towards their environment (Rämö, 2011), and the changes in their organizational routines to integrate sustainability development into their core organizational development (Yuan et al., 2011). Companies, for which sustainability is not part of their branding strategy, but nevertheless is important for their competitiveness in their environment, belong to the group of extrinsically engaged in sustainability (Moore et al., 2012), and are part of the '*Core Proponents'* cluster (Yuan et al., 2011). Companies in this group signal that they develop CSR and sustainability separately from the core branding strategy (Yuan et al., 2011). They will also signal that they alter those organizational practices and routines which become a deterrent to constructive CSR and sustainability practices (Yuan et al., 2011).

2.5.2 Signalling in relation to deterring from unethical practices

The narrative which is formed through sustainability signals, also explains why a company deters away from unethical practices and why it condemns unethical activity

(Adams, et al., 2001). One reason is because a company wants to communicate that it values society and its stakeholders. They signal that by going further than compliance guidelines and the conventional scale of reporting methods (such as CSR reports) they present the actual impact on the natural environment that their business operations provoke. This transparency allows them to engage with stakeholders better (Aguilera et al., 2007). Another reason could be because companies want to seem honest to the eyes of its stakeholders and hence offer better products and services. For example when suppliers signal that they enforce ethical codes, they signal that their engagement with ethics and sustainability is a genuine one (Colwell et al., 2011) and that their business model accounts for the needs of the society it operates within (Rämö, 2011).

2.5.3   Signalling sustainability in regards to company growth

Through the narrative which is formed through sustainability signals, a company communicates that it is forward looking; sustainability focused actions will become a necessity in order to be viable in the future (Campbell, 2007). Such a narrative explains that a company is willing to collaborate and become part of the companies that adhere with the need for a sustainability focused future (Jose and Lee, 2007). This stance could help them enter the leading elite. As leaders they are included into a 'best practices indicator', by getting accredited by widely recognized accreditation bodies and partaking into rankings such as the Dow Jones Sustainability Index (Robinson et al., 2011). As leaders they can become profitable, set up premium pricing, have the best people in the industry working for them and attract investment (Fombrun and Van Riel, 1996; Robinson et al., 2011), foresee future stakeholder needs and react accordingly (Rämö, 2011).

2.6   What affects the signalling sustainability process?

From our literature review so far, we surmise that there are several factors that affect the signalling process in regards to sustainability: inconsistencies, consistencies and depending factors. Figure 2   below shows how these affect the signaller and by extent the signal that the signaller sends out.

Figure 21: The Signalling Sustainability Process
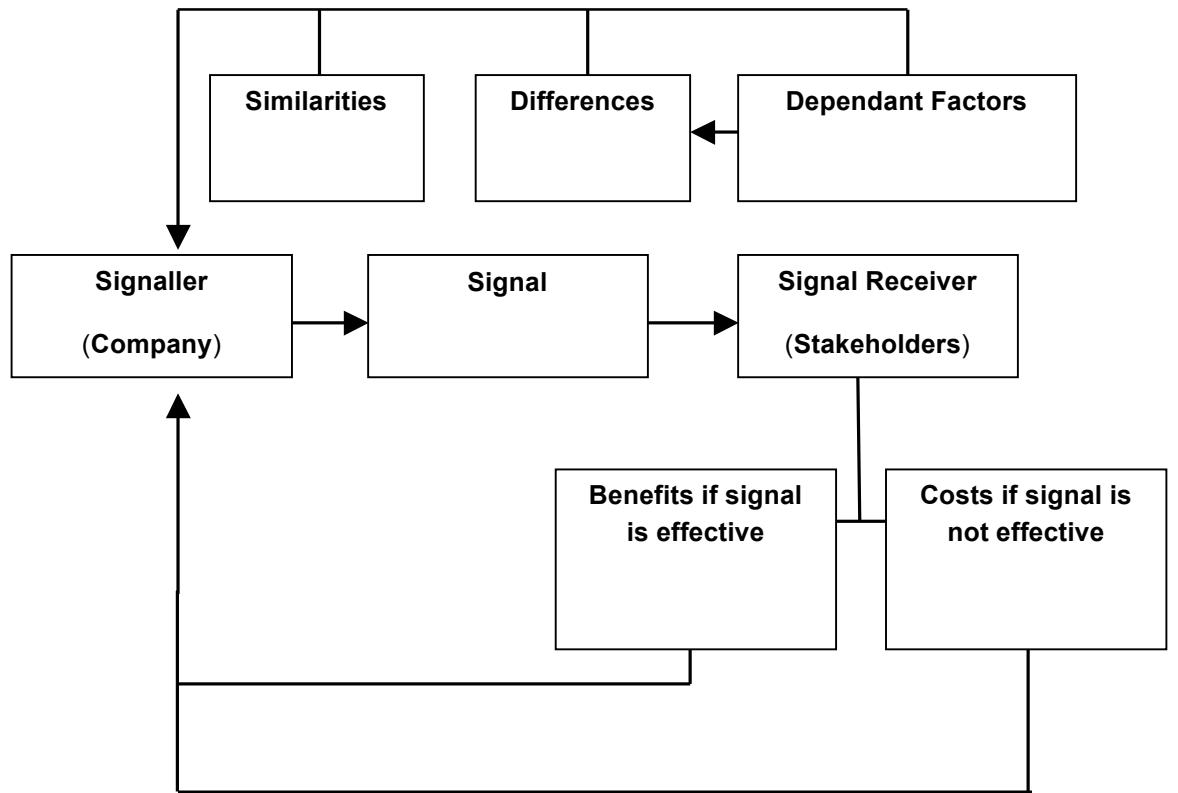
Common themes (similarities) that shape signalling sustainability, as literature indicates, are: defining a sustainability cluster a company belongs to (Morris et al., 2002), or explaining to stakeholders the reasoning why unsustainable behaviour should be avoided (Cronin et al., 2011; Bansal, 2005), or using sustainability signalling as a means to explain that the company's growth plan is long term one under triple bottom line guidelines (Lindgreen and Swaen, 2010). Such themes are not enough to secure a homogenous signalling environment in regards to sustainability however. The reason is because of the differences and depending factors that are prominent and diffuse any attempt to establish homogenous sustainability signalling as shown by figure 2. Differences are dependant of actors which affect the establishment of a concrete signalling strategy and inevitably compromise the effectiveness of signals. Differences are found in the various ways of how sustainability is defined (Baden and Harwood, 2012; Freeman and Hasnaoui, 2010), how it can be reported (Aguinis and Glavas, 2011), and how it can be practiced (Mintel, 2009). They depend on four factors as were analyzed previously:

(i) Whether sustainability fits with a prevailing and existing corporate strategy which until presently has been successful (Williams, 2012)

(ii) Whether a company is willing to invest in sustainability focused solutions or not (Moore et. al., 2012).

(iii) Whether sustainability fits with an existing branding strategy (Tseëlon, 2011)

(iv) Whether it serves a company's needs for growth and development (Robinson et. al., 2011)

Companies use a mix of different media to send out signals about their engagement with sustainability. Signals found in different media mixes reveal dissimilarities in signalling sustainability. We examine the different signals sent through different media, which allow the inconsistencies affecting sustainability signals to persevere.

2.7   Where do companies signal sustainability?

The typical ways to signal sustainability derive from the whole spectrum of the sustainability marketing mix: product / customer solution, price / customer cost, place / convenience and promotion / communication (Belz and Peattie, 2009), and are direct and indirect. What is important to note is that, sustainability as a signal: *"is not part of a product itself, but a piece of information about the product that a user can search out, obtain and process with minimal effort and energy",*(Herbig, 1996:35). For companies that sustainability is part of their corporate DNA and are intrinsically engaged in sustainability, signals initiate from corporate identity associations (Mintel, 2009). Corporate identity as "*the visual of identifying a corporation, company or organization*", (Smith, 1996:324), includes the company's name, brand name and logo, its products and their packaging, the appearance of a company's image in an actual or virtual store space, its signage, the company's brochures, letterheads and other direct mail materials (Smith, 1996), as well as the company website, CSR and white paper reporting, and the use of social media (Mintel, 2009). The components of a company's corporate identity are *direct signals* (Herbig, 1996).

There also ways of signalling sustainability indirectly, which can be as important as direct signals. An example of an indirect signal is the use of the colour green and white

when designing a corporate logo for example. Green brings our references to nature and the environment, whereas white is associated with purity and transparency (Williams, 2007). Direct or indirect signals use rhetoric and image associations to convey a company's involvement with sustainability (Rämö, 2011), and are both *overt* and *covert*. Overt signals involve sending out information in regards to a company's positioning within its competitive environment, whereas covert signals are the actions, which are evaluated by stakeholders (Herbig, 1996).

Companies actively engaging with sustainability, otherwise also called *superlatives* (Morris et al., 2002), or *intrinsically engaged with sustainability* (Moore et al., 2012) and whose competitive proposition lies within their sustainability profile and business practice, mostly employ overt signals (Herbig, 1996). They proactively send out overt and covert sustainability signals to their stakeholders to communicate their positioning within a sustainable and ethics business environment as well as their actions towards operating sustainably. Companies which are *extrinsically engaged in sustainability* (Moore et al., 2012), otherwise also called *core proponents* (Morris et al. 2002)send out a limited number of covert signals around any sustainability activity*,* i.e. the waterless jeans by Levis, which is a way of treating denim by using less water (Levis waterless jeans, 2010).

 Examples of sustainability overt and covert signals are: engagement with environmental causes, support of specific social groups and local communities, financial support in order to increase awareness on causes that are close to a company's ethics portfolio, investment for innovative solutions to create better and more environmental products, and volunteer work and sustainability related workshops (Freeman and Hasnaoui, 2010; Mintel, 2009).

The media that companies use to signal sustainability are not the main focus of this research. Therefore, the reasons why companies choose some over others, or why such media are important to marketing strategy are not analyzed in depth in this study. What is important however is to present signalling sustainability in its whole essence, in order to better understand the mechanisms that will allow effective signalling of sustainability. For this reason the researcher believes it is necessary to mention briefly

the most commonly used overt and covert media to signal sustainability. These are presented below:

Table 2.3 – Where companies signal sustainability

TYPE OF SIGNAL	MARKETING MIX	AUTHOR / YEAR
• Logo and brand name • Signage, brochures, letterheads and other collateral	Corporate Image Signals	Smith, 1996; Herbig, 1996; Gounaris and Stathakopoulos, 2004; Rios et. al, 2006; Kotler and Keller, 2009; Wells, 2012
• Packaging • Labelling	Product Solution	Smith, 1996; Alpert et al, 1993; Rios et. al, 2006: EFC, 2009; Mintel, 2009
• Customer Cost Signals	Pricing	Herbig, 1996; Pires et. al, 2006; EFC, 2009; Mintel, 2009
• Convenience Signals	Place	Rios et. al, 2006;Gurau, 2008; Mintel, 2009
• Websites • CSR Reporting • Social Media • Sustainability conferences and publications of white papers • Sponsorship of sustainability trade shows, seminars, conferences and workshops	Promotion / Communication	i.e. Pires et. al., 2006; Gill et.al, 2008 i.e. Bansal, 2005; Oster, 2010; Aguinis and Glavas, 2012 i.e. Tseëlon, 2011; Gilmore et. al, 2009: Friedman, 2011 i.e. Basdeo et al., 2006; Hoivik, 2007; Vandekerckhove et al., 2007; DEFRA, 2010; Walker and Wan, 2012 Kitchen et. al, 2004; Gao et. al, 2008; Basdeo et. al, 2006; Connelly et. al, 2011

2.7.1 Corporate Image Signals

a. Logo and Brand-name

The use of a specific design of a corporate logo or a brand- name is a choice of signal which doubles as an overt and a covert signal. The corporate logo, as it is part of the corporate identity communicates three things: (i) what a company is, (ii) what a company does, and (iii) how a company does it (Smith, 1996). A brand-name follows similar signalling lines (Herbig, 1996; Kotler and Keller, 2009), in order to create loyalty amongst stakeholders (Gounaris and Stathakopoulos, 2004). One of the effects of a successful logo and brand-name is that a company can communicate the special attributes that makes it unique, and by extension its products. It also signals that by choosing the products of such a company, stakeholders will get a better experience, as these products have special qualities to offer (Wells, 2012). These

special qualities can be reviewed by stakeholders in search of specific attributes (Kirmani and Rao, 2000). Examples of retail corporate logos and brand-names which bring associations with sustainability and eco-friendly credentials are brand-names such: People Tree, Junky Styling, Terra Plana, or Honest By to name a few examples.

b. Signage, brochures, letterheads and other collateral materials

Signage, brochures, letterheads and other print or online materials are part of the visual corporate identity and branding (Smith, 1996), and part of a company's overt set of signals (Herbig, 1996). Similarly to conventional companies, companies focused on sustainability aim to adopt an integrated corporate image. Their integrated corporate image is reflected via their visual corporate identity, and print and online materials, which all enable a company to establish visual recognition by its stakeholders (Smith, 1996). Examples of signals to imply a company's engagement with sustainability as part of an integrated corporate image are: the use of recyclable materials to create company collateral, and the use images of nature and of happy labourers working in cotton fields. Such signals tie in with other messages of sustainability in order to reinforce their effectiveness (Rios et. al., 2006).

2.7.2   Product Solution / Packaging and Labelling

In retail products, part of the product solution aiming to communicate a higher quality (Dopico and Porral, 2012), is packaging (Smith, 1996; Alpert et al., 1993). In companies intrinsically engaged with sustainability, usually the type of product packaging selected has either some features from recycled materials or the whole package is from recyclable materials and re-recyclable. The choice of recyclable materials is an additional signal that strengthens the message that the product/company acts along ecological parameters (Rios et al., 2006), communicating that the company takes its waste management actions seriously. Part of the packaging are also the labels which explain why a product is sustainable; labels usually indicate whether a product is manufactured ethically, whether it is from organic materials and whether it is fair traded (EFC, 2009). Sustainability focused companies use labels to communicate their sustainable credentials or their affiliation with certification bodies recognizable by the public (EFC, 2010; Mintel, 2009). Examples of such certification bodies are the

Fairtrade Foundation, GOTS or Organic Exchange. Such associations are used to make the sustainability credible (EFC, 2009). When stakeholders receive signals from a credible source then the signal becomes stronger (Herbig, 1996). A public certification body can be a persuasive source in the eyes of the receivers (EFC, 2009) therefore sustainability signals endorsed by such bodies become more believable.

2.7.3   Pricing / Customer Cost Signals

Pricing theory suggests that the higher the price the better the product quality; if someone chooses to spend the money asked for a product, then that product is worth its price (Herbig, 1996). Although the pricing of environmentally sustainable retail products is often at similar levels with conventional competitive brands, one in ten consumers believe that they are more expensive, whereas three out of ten consumers state that they would buy such products if they could afford them (EFC, 2009, Mintel, 2009). Such opinions lead to the assumption that in the mind of the average consumer, environmentally sustainable products are more expensive than the average conventional ones (Mintel, 2009), otherwise called products of *value propositions* of lower quality standards (Pires et al., 2006), which is not untrue.

These consumer attitudes reinforce the perception that, as environmentally sustainable retail products are produced by sustainable methods, they are more costly when compared to conventional fashion; environmentally sustainable products incorporate elements such as organic cotton which is more expensive (EFC, 2009), and labourers involved get paid a fair salary (Mintel, 2009). Therefore, a higher retail price which reflects all those sustainable sourcing and ethically manufacturing costs distinguishes environmentally sustainable products from *value propositions* (EFC, 2009).

2.7.4   Place / Convenience Signals

Environmentally sustainable retail products are mainly purchased online, but some can also be purchased in a brick and mortar environment (EFC, 2010). In addition, sustainable retail products can be found in specialty stores and also on websites of mainstream retailers; in such cases they are typically placed in a specialized section of a retail space, either actual or virtual (Mintel, 2009). In either case, and similarly with

the depiction of their corporate identity and corporate collateral which reinforces their sustainability credentials (Rios et al., 2006), the design of a retail outlet follows the lines of reinforcing the sustainability focus of the corporate strategy. This takes place selecting images, space arrangements and props as signals to reinforce integration in sustainability associations (EFC, 2009; Mintel, 2009; Gurau, 2008).

2.7.5   Promotion / Communication

a. Websites

Information and communication technologies empower consumers not only to learn about companies and their products but to also engage in an open dialogue with them (Pires et. al., 2006). With the use of a website, a retailer can communicate new products and information about the company to its distributors, sales channels,consumers and stakeholders (Smith, 1996). Through the use of a company's website and the development of online communication applications, stakeholders reach the virtual retail space of a firm(Gurau, 2008). In such a virtual environment, signaling focuses on integrated online advertising, promotional activities and online communication (Gurau, 2008). Such a signalling mix is initiated by the original retailer (Smith, 1996). The end result is twofold: initially to pull stakeholders' interest and increase sales (Smith, 1996), followed by learning about the company's stakeholders through data mining, management, or information analysis (Gurau, 2008). Therefore, the idea behind the establishmentof a successful website is to establish a signaling platform, where an ongoing relationship between consumers and firm is established. In such a signalling platformcommunication becomes   direct via on line communication campaigns and dialogue (Gurau, 2008). This type of communication and signalling also empowers stakeholders, because it allows them to get involved in the development of the firms' sustainable strategy (Pires et al., 2006). There are many websites where consumers can read and share their opinion about sustainability and CSR initiatives and be part of the implementation of sustainability actions (Gill et al., 2008). In those cases the need to be sustainable is perceived as a collaborative process between the company and all stakeholders involved (Gurau, 2008).

b.   CSR Reporting

More than 10% of the companies that are publicly traded in the US create and use CSR reports as signals (Oster, 2010). Such signaling is voluntary. Through CSR reports companies are trying to signal quality in their sustainability actions (Oster, 2010). CSR actions are an internal company aim to do things more sustainably (Aguinis and Glavas, 2012; Aguilera, et al.; 2007, Bansal, 2005).

Usually in a company's CSR report, usually featured online, the focus is on the positive effects of the company's sustainability programs (Oster, 2010). Communication of auditing processes and activities pertaining to sustainability are included in such reports (Gill et al., 2008). The web offers the company's official view in regards to sustainability, a clear signal to all stakeholders involved (Oster, 2010; Wanderley et al., 2008). It is noted that larger firms usually devote special space on their website where they post information and communication about such initiatives, such as the case of Nike or Marks and Spencer. Usually CSR reporting websites are part of a company's main website but under a separate heading which suggests that the section is of special interest and involves a company's sustainability strategy and programming, instead of the usual retail focus.

CSR reporting websites often include sub-sections such as the corporate sustainability mission statement and code of ethics and conduct. For companies that are intrinsically engaged in sustainability, such mission statements express that sustainability is incorporated into strategy (Morris et al., 2002). As far as codes of ethics are concerned, they offer positive impact in companies' reputations when they are publicized; the fact that usually stakeholders cannot recall what exactly is included in those codes of ethics does not seem to affect their signalling power at all (Adams, et al., 2001).

Another positive outcome from CSR reporting for a signalling environment is that it usually incentivizes other companies to create and report upon their CSR actions as well (Oster, 2010).

c.   Social Media

Another way that a company sends signals to its stakeholders as far as its sustainability programs and strategy is concerned, is through the use of social media, such as Facebook, Linked In and Twitter for example, as word of mouth strongly affects brand loyalty and image (Gounaris and Stathakopoulos, 2004). Social networks reflect a new type of marketing from companies: commitment and engaging people in dialogue; this way "*people are spreading the word and creating the content of the brand*" (Tseëlon, 2011:18)

For some companies, especially private companies, social media is something they rely on extensively: it is an inexpensive way to build brand equity (EFC, 2009) and presents the solution to limited funds allocated to marketing budgets (Gilmore et al., 2011). Social media offer an unstructured access to the company, its views and its communication through casual type of signals (Friedman, 2011), which is very much in tune with the way private companies apply their marketing strategy (Gilmore, et al., 2011). The use of social media helps stakeholders view a company outside the formal corporate website structure, and helps them select what they want to be associated with and with whom (Friedman, 2011). More importantly it allows companies to share why they have made such associations, including: the company and its manifesto, its products, its ideas and its corporate strategy, allowing direct dialogue with stakeholders (Gounaris and Stathakopoulos, 2004). Such communication also empowers stakeholders (Pires et al., 2006). Empowered stakeholders are more likely to reject product propositions that do not meet their quality standards (Pires et al., 2006), possibly including sustainability standards. As stakeholders have the freedom to pick and choose among companies they want to be associated with, a company's strategy and products will be compared to those of its competitors, while stakeholders are likely to be vocal about it in order to support their choice (Gounaris and Stathakopoulos, 2004). Since a company's reputation is a direct result of its actions against the actions of its competitors (Herbig, 1996), signalling plays a very important role in communicating clearly and fully what those actions are (Basdeo et al., 2006). A company's reputation is formed by its actions (Basdeo et al., 2006). These actions are compared with what its competition is doing (Basdeo et al., 2006). In that respect,

sustainability actions become a comparable element as well (Wells, 2012; Banerjee et al., 2003).

d.   Sustainability Conferences and Publications of White Papers

Signalling through conferences and publications sets the sustainability framework for a market (Hoivik, 2007;Vandekerckhove et al., 2007; Walker and Wan, 2012), in which companies are judged according to how they act or react to sustainability initiatives (Basdeo et al., 2006).

Companies of a similar industry may work together on developing knowledge on a particular issue. By collaborating they also operate within a similar signalling environment (Gilmore, et al., 2011; Banerjee et al., 2003), and aim to share new information (Spence, 1973).Participation in sustainability conferences becomes the signal that the company is involved with sustainability strategy.

Examples of such meetings and conferences, include the Annual Defra Clothes Roadmap Conference in London on a national scale (DEFRA, 2010), or the Rio+20 United Nations Conference on Sustainable Development Meeting (WBCSD, 2012)on a global level. By participating at the Defra Sustainable Clothing Roadmap of 2009, companies such as Adidas, the Arcadia Group and H&M among many others, are listed amongst the project stakeholder groups which will aid with the implementation of the Roadmap's major milestone, which involves waste management in retail and fashion, and promotes sustainability through retail and the use of organic materials in manufacturing (DEFRA, 2010).

Some companies do not only participate in conferences, but also get involved in the publication of white papers. These publications are either the result of attending a public meeting or are instigated by the companies themselves. Publications are signals communicating a company's sustainability initiatives (Pollock and Gulati, 2007). These signals are a means to build up positive image for these companies (Mallin et al., 2012). They also allow other stakeholders and consumers to shape an opinion (Basdeo et al., 2006), by comparing those companies against their competition (Clark

and Modgomery, 1998), and ultimately become signals that differentiates one company from its competition (Choi et al., 2007).

e.   Sponsorship of sustainability fashion trade shows, seminars, conferences and workshops

In addition to participating in conferences and meetings, some companies also become the sponsors of such events. Sponsoring a sustainability themed trade show, seminar, workshop or conference, becomes a strong signal and part of an integrated marketing communications mix (Kitchen et al., 2004). Sponsorship reinforces an already positive image of a company in regards to sustainability (Gao et al., 2008). Sponsorship as part of an integrated marketing communications mix becomes a market action, and is a *"signal that conveys information about the underlying competencies of a company"* (Basdeo et al., 2006: 1205). Sponsoring as an action establishes the firm as an "innovator" and amongst the pioneering set of companies. It sets it apart as the most experienced in its field, because it distinguishes its high involvement and knowledge on the topic of sustainability (Kirmani and Rao, 2000; Connelly et al., 2011). By sponsoring major trade shows and exhibitions, and by promoting sustainability as the only way of conducting business, a company differentiates itself. We usually find larger firms sponsoring such events due to the high economic costs involved (EFC, 2009). Therefore, signalling sustainability through sponsorshipis a costly affair (Bird and Smith, 2005). However, despite its costly nature, sponsoring as a signal, also communicates a certain quality about the company (Kirmani and Rao, 2000).

2.8   Signalling sustainability – the challenges

To design and send sustainability signals has many challenges (Gill et al., 2008; Gurau, 2008). The effectiveness of a signal depends on how strong a signal is, but also upon stakeholders' knowledge of how to use the information signalled to them (Spence, 1973). Mainly it depends on whether information asymmetry exists (Spence, 1973). Information asymmetry which is reflective through the many different types of signals used, as well as the differences in content and essence as it was presented above, creates dissimilarities (Dentchev and Heene 2003) in the way that sustainability is signalled by companies. As sustainability signals can be complex, heterogeneous

and not always straightforward (Wells, 2012; Brown et al., 2010; Pires et al., 2006), not having a straightforward framework which can be used as creates great challenges to companies. Therefore, there are challenges when companies signal about their sustainability actions because of the lack of homogeneity in sustainability reporting. The most common challenges include:

- Penalty costs and green-washing (Coleman, 2011; Leiblein, 2011; Brønn and Vrioni, 2001)
- Heterogeneity in the interpretation of signals regarding the meaning of sustainability (Wanderley et. al., 2008)
- Differences in significance of signals and opinions of what is the sufficient amount of information to disclose (Gill et al., 2008)
- Information asymmetry and the ways companies respond to it (Connelly et al., 2011)
- Partial sustainability signals (Miles, 2012).

The challenges are analysed separately below.

2.8.1   Penalty costs and Green-washing

To signal a company's greener profile is a tricky task, as it is often regarded with mistrust and cynicism by stakeholders (Jahdi and Acikdilli, 2009; Kalmijn and Hermann, 2009; Baker and Ozaki, 2008; Tungate, 2008; Joergens, 2006). Literature and practice demonstrate examples where companies had to pay penalty costs when the supposedly sustainability attributes indicated were not met (Coleman, 2011). These examples also indicate that the added value of sustainability as a signal decreases when penalty costs occur (Leiblein, 2011). It is critical that the corporate identity and brand equity promise, follows through with the stakeholder experience after being exposed to a company's signals (Herbig, 1996). If signalling implies that a company engages in sustainability and stakeholders find out that it is not following through (Joergens, 2006), then stakeholders could lose faith in the company and the latter will be accused of green-washing (Winston, 2010).

Green-washing damages a company's reputation (Brønn and Vrioni, 2001) and affects its future financial performance (Mintel, 2009). Investment in signalling sustainability

might not result in increasing sales necessarily (Leiblein, 2011); but sending signals without a coherent sustainability strategy will eventually affect performance adversely (Werbach, 2011). Academic research has proved that when penalty costs occur companies not only loose reputation and credibility, but must invest large amounts of money in order to contain this damage and re-establish their credibility (Connelly et al., 2011). It also increases stakeholders' uncertainty about the quality of the products they are expected to buy. Consumers can be predisposed negatively towards a corporation and its products, when they believe that the corporation has changed or compromised a brand (Choi et al., 2007). When the gap widens between how a corporation wants to be perceived, and how it really is perceived by stakeholders (Cheng, et al., 2008) we observe penalty costs incurring (Connelly et al., 2011). A sudden and a large amount of data might be a reaction from a company towards negative comments by its stakeholders; however such signals may communicate anguish in regards to the company's sustainability policies. This immediate action to contain negative comments– which sometimes may be reactionary – might seem in conflict with the company's direct mission to create growth through being sustainable (Rees, 2002).

2.8.2 Heterogeneity in the interpretation of signals regarding the meaning of sustainability

Heterogeneity as a primary quality in a signal which results in variation from how something is interpreted by the sender of the signal and how it is interpreted by the receiver (Spence, 1973).The way that sustainability is interpreted, applied today is varied (Hunt, 2011; Mintel 2009). Therefore there is heterogeneity in sustainability themes, topics, and practices. This variation in themes, practices and the differences in focus in strategy in regards to sustainability (Moore et al., 2012; Mintel, 2009; Mittal, 2007) becomes ones of the challenges that hinders companies to have a specific language in regards to communicate with their stakeholders (Baden and Harwood, 2012), and therefore use cohesive and specific sustainability signals as well. An example of this heterogeneity in signalling is when we look at sustainability marketing messages. Belz and Peattie (2009) observe use six types of marketing messages otherwise called appeals:

a. appeals that are of a financial nature and link a cause (environmental or ethics related) to a specific pricing scheme

b. management initiatives that link a specific company as part of an environmental or ethics related solution

c. proposals that are associated with the sense of euphoria which stakeholders can experience when they use a sustainable product

d. pleas that engage with the emotional side of stakeholders and offer them the sense of empowerment every time they associate themselves with a specific brand or company

e. At trend claims, which link existing and current environmental and ethics issues and concerns with a company's strategic focus

f. other appeals such as endorsements from opinion leaders to a specific environmental or ethics cause

These appeals can also become signals. Their role is to send specific messages to specific stakeholders to whom they need to respond (Belz and Peattie, 2009). If they do, then these signals are effective, because effective signalling relies on whether a signal is interpreted by the receiver in the manner that was intended by the transmitter (Spence, 1973). In other words the transmitter sends out signal A expecting it to be interpreted as signal A. If it is perceived in any other way, then we have a heterogeneous signal (Connelly et al., 2011).

Heterogeneous signals confuse stakeholders and make the communication flow of corporate sustainability strategy more difficult, jeopardising its intention of being trustworthy by their receptors (Lindgreen and Swaem, 2010;Choi et al., 2007). This possibly can affect corporate performance (Gao et al., 2008).It is notable that heterogeneity as an attribute has a double effect: as part of sustainability in strategy development, heterogeneity becomes a factor that turns this strategy into a source of competitive advantage (Escobar and Vredenburg, 2011; Barney, 2011; Hunt, 2011). When observed in signalling sustainability becomes a difficult challenge. According to the resource based view and the resource advantage literature, the heterogeneous nature of sustainability derives from the fact that as a resource it is difficult to imitate

and be reproduced (Hunt, 2011). It is therefore implemented in a unique way by the companies that acknowledge it as a valuable resource (Banerjee et al., 2003). When this unique way of implementation is signalled, this same advantage becomes a challenge, because sustainability initiatives, actions and plans need to be specific in order to be understood by all stakeholders involved (Dentchev, 2004)and for signalling to be effective. As a result, sustainability as a valuable resource (Hunt, 2011; Eccles et al., 2011) can be held back (Lindgreen and Swaem, 2010), or move forward (Walls et al., 2012). How sustainability will evolve as a valuable resource could also dependant on how effectively it can be signalled as a valuable resource.

2.8.3   Differences in significance of signals and opinions of what is the sufficient amount of information to disclose

There are many ways to signal sustainability because there are many different ways in which companies implement sustainability strategy (EFC, 2009). Some companies engage in environmental practices; other companies focus on improving their social performance; others look into innovation to improve manufacturing and distribution processes: some others prioritize into becoming more energy efficient(Belz and Peattie, 2009).Adding to the various sustainability strategy "angles", which result in various marketing messages (Belz and Peattie, 2009), there is also a plethora of sustainability accreditation bodies and certifications to affirm all these different ways of being a sustainable company (Mintel, 2009). Many companies operating on a global as well as a regional scale, find that there is not much significance in certifications of a national level, such as the US EPA (2004) Performance Track, or even in local auditing scheme because they are not widely accepted and recognized by all their stakeholders (Sealy et al., 2010). For example the widely accepted ISO 14000 series of environmental management standards is not recognised in the United States, but it is used as a credible tool in China and Japan (Sealy et al., 2010). The existence of many accreditation systems and certifications does not only exist on a national, international and regional level, but also in an industry level as well. The fashion industry in the UK for example has a lack of a universal labelling system or a widely accepted code of ethical and environmental standards (EFC, 2009). Diverse information availability and differences in information disclosure in regards to sustainability is another reason heterogeneity in signalling exists. Many different signals, in volume and quality of

information, are currently available and disclosed from companies (Gill et al., 2008; Hoivik, 2007). This is a result of CSR being still an ambiguous topic (Aguinis and Glavas, 2012). The way that CSR develops within a specific company, also becomes a communication tool of its values. However, values can different from company to company, creating more ambiguity and confusion (Baden and Harwood, 2012) to company employees and stakeholders.

All these existing accreditations and certifications cause variations in interpreting what sustainability means to various companies. Adding different regions in different parts of the World in the mix (Gill et al., 2008), as well as the variations of interpretations of what sustainability means to different stakeholders (Sharma and Henriques, 2005) explain why signalling sustainability is so challenging (BCG report, 2009; Buyesse and Verbeke, 2003; Dentchev and Heene, 2003).

2.8.4   Information asymmetry and the ways companies respond to it

Another critical factor affecting the effectiveness of signalling is information asymmetry (Dentchev, 2004). Information asymmetry is created when the transmitters and the receivers of signals have different information or levels of knowledge about a transaction; this is something that affects the relationship of the parties positively or negatively (Dentchev, 2004). When one transmitter of information assumes that the receiver has or does not have a certain level of information or knowledge about a particular transaction or topic, then the transmitter will decide on how much and what type of information it needs to send out through signalling to get its message across (Connelly et al., 2011).

Information asymmetry is a critical factor that companies take into account when deciding their marketing and communication campaigns (Narayanan and Manchanda, 2009; Kirmani and Rao, 2000). It is also amongst the fundamental areas of marketing research because it can affect purchasing decisions of buyers: can they trust the products they are asked to buy? Does the product do, in terms of being sustainable, "what it says on the box"? (Narayanan and Manchanda, 2009; Kirmani and Rao, 2000).One of the areas that literature identifies the issue of information asymmetry in sustainability is the manner in which sustainability is communicated to stakeholders.

Companies are trying to respond to the needs and knowledge of many different stakeholders based on the influences from their most influential stakeholders (Sharma and Henriques, 2005). Stakeholders – even the influential ones - can be more than one group and dissimilar. Dissimilar stakeholders have dissimilar needs to be fulfilled, and these needs have an effect on how corporate sustainability practices are communicated, creating asymmetry in signalling(Sharma and Henriques, 2005). Therefore, sustainability programs, even if they are evolving, do not progress along straightforward lines, because of the existence in policy asymmetry between companies (Perez-Batres et al., 2011). Policy asymmetry also encourages information asymmetry, as a result of the many different sustainability policies that emerge from many different companies operating in one industry (Sharma and Henriques, 2005).

As a result, stakeholders still confuse ethics with environmental sustainability, or can only process a number of claims at any given time (Davies et. al., 2010; Mintel, 2009). In addition when signalled with words and images, sustainability becomes an even more vulnerable concept. This is because it is usually addressed to wider audiences and not only to professionals. As a result the messages it conveys are presented under "a rose tinted lens" in order to emphasize the positives of sustainability by avoiding to mention the harsh truth that unsustainable behaviour results (Rämö, 2011), allowing information asymmetry to develop and offering partial signals.

2.8.5   Partial sustainability signals

A study by Gill, Dickinson and Scharl (2008) compared the communication of sustainability between Asian and Western oil companies from North America and Europe. The study shows that North American and European firms release a greater deal of information in regards to social, economic and environmental impacts in comparison to their Asian counterparts, which reveal much less information. Sustainability reporting, according to this study, is still perceived as a trend of the West (Gill et al., 2008), thus creating partial signalling.

Previous work has analysed the reasons why heterogeneity and information asymmetry in signalling sustainability (Miles, 2012; Joergens, 2006) affects negatively the communication of sustainability as an advantage. Partial signalling is amongst the

factors that further emphasise the existence of heterogeneity and information asymmetry (Gao et al., 2008; Riley, 1975; Spence, 1973). Partial signals reflect confusion in what needs to be signalled (Connelly et al., 2011) in order for recipients to become responsive (Gupta et al, 1999). Partial signals may compromise sustainability's core advantage, as stakeholders become confused (Miles, 2012; Mintel, 2009). Differences in how signalling takes place, sometimes because of the different priorities of different stakeholders (Rivera-Camino, 2007), or other times because there is variety in the volume of information available (Gill et al., 2008; Hoivik, 2007), are also confusing. Partial signals are received with scepticism and distrust (Lindgreen and Swaem, 2010). Since companies need to: "*use costly signals to communicate underlying qualities or intentions to those who may desire to know such information*" (Connelly et al., 2011:41), to ensure that signalling is effective (Spence, 1973), we assume that partial signals make the process of signalling sustainability weaker. A weaker signal may compromise the message it seeks to deliver, therefore, partial signalling compromises sustainability as a strategic resource.

2.9 The research structure

The aim of reviewing and synthesizing the literature is to set the structure of why sustainability is signalled, what companies do to signal sustainability and the ways they signal it.

2.9.1 Types of literature reviewed

Initially we analysed the reasons which support the assumption that sustainability is perceived a strategic resource and affects corporate strategy. Examining how sustainability has been evolving since the 1987 WCED definition (see p.13) is essential because for many companies sustainability is utilized as a strategic resource prior and thus can be signalled as such. However, as signalling sustainability is a new topic, the findings presented in this section of the literature review derive from a synthesis from the RBV, CSR, and signalling literatures, and further developed from a signalling theory viewpoint. The present research draws on signalling theory to explore the research question of this thesis which focuses on why and in what ways sustainability as a strategic resource becomes an effective signal.

2.9.2   What the literature reveals

The literature review reveals that companies, which perceive sustainability as a strategic resource, are divided in two main categories: a. sustainability intrinsic companies and b. intrinsic/extrinsic companies (Moore et al., 2012). For intrinsically engaged in sustainability companies, sustainability isa strategic resource which can help them perform better at a multidimensional level (Walls et al., 2012; Eccles et al., 2011; Lindgreen and Swaem, 2010; Gao et al., 2008). This multidimensional performance derives not only from the perspective of economic growth, but also because the company gains value (Baden and Hardwood, 2012), while it also begins a constructive dialogue with its stakeholders (Castelló and Lozano). We learn from the literature that signalling sustainability is not an easy task for companies. Sustainability is a complex business concept (Morris et al., 2002; Belz and Peattie, 2009) and the ways that sustainability is interpreted, applied and measured are vastly fragmented (Moore et al., 2012; Aguinis and Glavas, 2012; Freeman and Hasnaoui 2010). Moreover, we learn that there is an absence of a set signalling sustainability framework upon which companies can base their signals (Baden and Harwood, 2012), due to the fact that there an absence of a common sustainability framework as well (Jose and Lee, 2007). Nevertheless, companies send out many sustainability signals as a way to define their association with a cluster (Moore at al., 2012), to offer transparency in operations and to build relationships with their stakeholders (Aguilera et al., 2007). Commonly used sustainability signals are corporate image signals, signals through the product mix, pricing structures, and a communications mix through the use of websites, CSR reporting, the use of social media and by participating in conferences, and sustainability focused trade shows to name a few examples.

However, we also learn from the literature that there are many challenges in signalling sustainability which result in weaker sustainability signals to be sent out. Challenges include: penalty costs and green-washing (Coleman, 2011; Leiblein, 2011; Brønn and Vrioni, 2001), heterogeneity in the interpretation of signals regarding the meaning of sustainability (Wanderley et al., 2008), differences in what is the sufficient amount of information to disclose (Gill et al., 2008), information asymmetry (Connelly et al., 2011) and partial signals (Miles, 2012).

2.9.3   Next steps and gaps identified

The next step of this study examines the avenues that companies need to take in order to send out effective sustainability signals. What are the defining factors that dictate why something will be said and how it will be signalled? How do they understand their role as a sustainable company, in opening a dialogue with their stakeholders in order to convey sustainability credentials which are the basis of quality signals?
One of the gaps identified while reviewing the literature is that where -the environment- a company signals might play an important role in how effective the signalling process is (Connelly et al., 2011). How does the environment of signalling sustainability affect the effectiveness of signals?   Which are the differences of companies which signal sustainability effectively versus the ones which do not, as part of a similar environment? These are questions that the literature has not presently engaged with and are addressed at the empirical stage of this research.

Another topic, where literature identifies a research opportunity in the topic of signalling sustainability, is the existence of information asymmetry (Davies et al., 2010). As far as signalling sustainability frameworks stand, the literature suggests that there are communication gaps between senders and receptors of signals, because often companies which have CSR and sustainability programs in place fail to find a marketing strategy that is inclusive of these efforts (Yuan et al., 2011). Therefore by exploring the ways by which companies intrinsically engaged with sustainability design signals which fit in with their business strategy, this research aims to examine the ways that companies respond to the challenge of information asymmetry that currently exists in signalling sustainability. We assume that if a company fails to include sustainability development as part of the overall business strategy, because it is not sure how to do it, then sustainability as a strategic resource is not utilized to its full potential and will not improve corporate performance on a multi-dimensional level. We suggest that the non inclusion of sustainability in marketing strategy snowballs to how effective its signalling is. This is an area where marketing and management disciplines can benefit from further study (Connelly et al., 2011).

2.10   Chapter Summary

This section compares the evolving literature in regards to signalling sustainability as a strategic resource. This part of the literature review discusses the essence of the structure and the concepts used to signal sustainability. Pre-occupation with sustainability on a strategic level creates confusion amongst companies on what to focus and on how to prioritise their strategy on that single element which is sustainability (Schmitt and Renken, 2012). This confusion extends into signalling: on one hand companies are still struggling to quantify the value that sustainability creates when it is signalled (Moore et al., 2012), and on the other hand, not having a straightforward signalling framework creates great challenges when companies try to send out sustainability signals.

Currently, sustainability signals are found in the rhetoric construction of CSR and sustainability claims and reports, (Castelló and Lozano, 2011). They can be complex and not always clear-cut (Pires et al., 2006). As there is no common or set framework of signalling sustainability, companies rely on their own resources and initiatives in order to design their signals (Jose and Lee, 2007).

By signalling sustainability, companies explain to stakeholders that they belong to a specific group or cluster (Moore et al., 2012; Yuan et. al., 2011). They also announce that they deter from unethical behaviour towards the environment and society (Adams, et al.,2001; Campbell, 2007). These are similarities in the current signalling framework. However, due to many inconsistencies in signalling and depending factors such as: the fit of sustainability initiatives with an existing marketing strategy and how much investment a company is willing to make in signalling sustainability to name a few, we have many dissimilarities which cause heterogeneity, information asymmetry and partial signals.

This research proposes that effective signals should convey and capitalize upon the importance of sustainability as a practice on a multi-dimensional level. The literature so far proposes the need for further research into several proposals that will help managers to be clear themselves of what value sustainability offers to their firms (Schmitt and Renken, 2012; Campbell, 2007). That would help with signalling the

value of sustainability as well. Such proposals include the need to find the match between a business strategy and sustainability development which then signalling can develop into a value for the company (Yuan et al., 2011). There is also the need for companies to signal normative statements to affirm how things should be, which actions are right and which are wrong, and how these are valuable to the firm and society in general (Baden and Harwood, 2012). Effective signals should be clear and specific in order to avoid misunderstandings (Miles, 2012; Connelly et al., 2011), while stakeholders should perceive a company's signals the way that the company intends them to (Cheng et al. 2008). To have effective signalling a company should create a connection between a signal and the underlying quality it represents, otherwise called a signal fit (Connelly et. al., 2011). In this way, effective signalling is achieved, because it will be identifiable and continuous, unchangeable, costly to be altered, inimitable and will reduce the information asymmetry gap between the senders and the receptors (Spence, 1973, Gao et al., 2008).

In the following section we analyse the antecedents and the outcomes of signalling sustainability.

CHAPTER 3

THE ANTECEDENTS AND OUTCOMES
OF SIGNALLING SUSTAINABILITY

3.0   Introduction

In the previous chapter of the literature review we analysed the context of signalling
sustainability employed by companies which are intrinsically and
intrinsically/extrinsically engaged in sustainability strategy. This section of the
literature review focuses on the quality of sustainability signals and their effectiveness,
and includes of the following qualities: identifiable, continuous, inimitable, costly to
be altered and reducing information asymmetry (Spence, 1973, 2001; Riley, 1975;
Gao et al., 2008).

Epstein (2009) advocated that understanding and embracing the antecedents that affect
a company's future strategy prior to signal strategy is a necessary first step. When
antecedents are identified, signalling can act as the means to minimize ambiguity
about a company's strategy. This section applies this proposal to sustainability focused
strategy and sustainability signals.

We propose that sustainability signals can become more effective when antecedents of
sustainability are set by companies. Companies need to identify and understand the
reasoning of their engagement with sustainability in order to ensure that when
sustainability signals are sent out these signals present all these qualities that constitute
them as effective. Therefore, this section of the literature review examines whether
sustainability antecedents set the basis for effective signalling and their outcomes.

This chapter is organized as follows: it presents the antecedents of signalling
sustainability strategy. It also discusses the outcomes of signalling sustainability in
order to explain why signalling can improve the performance of a sustainability

oriented firm on a multidimensional level (Gao et al., 2008; Lindgreen and Swaem, 2010; Eccles et al., 2011; Walls et al., 2012). It concludes with the discussion and the assumptions arising from the literature review, and the presentation of the gaps which will be addressed in the empirical part of the study.

3.1   Antecedents to signalling sustainability

The author proposes, along the lines initially set by Epstein (2009) that identifying the antecedents which could influence strategy development –in this case sustainability focused strategy- prior to signalling is essential. Signalling provides critical information to stakeholders as to how a company relates to itself and to them (Basdeo et al., 2006). Therefore, when the antecedents are identified, signals are stronger (Kirmani and Rao, 2000). Table 3.1 below presents the signalling sustainability antecedents. The author has grouped them together to allow a view at a glance, of the most representative literature and analysis of this point.

Table 3.1: The antecedents to signalling sustainability

ANTECEDENTS	CONTRIBUTION	AUTHORS	YEAR
Sustainability is related to corporate identity and essence	It is related to corporate culture, corporate behaviour, products & services, communications and strategy. It affects stakeholders needs It forms special bonds It reinforces corporate objectives	Cheng et al. Connelly et al. Epstein Seale et al. Hunt	2008 2011 2009 2010 2011
High involvement in sustainability activity	High involvement equals quality Intrinsically and intrinsically/ extrinsically engaged Companies belong to clusters	Kirmani and Rao Moore et al. Yuan et al.	2000 2012 2011
Visibility in relation to sustainability	Visibility is necessary to establish strategy Visibility is linked to signalling Visibility contributes to higher performance	Dentchev Pollock and Gulati Burke and Longsdon	2004 2007 1996
Corporate commitment to sustainability strategy	Helps the image of a company and improve its reputation amongst stakeholders Strategy needs to have a long term vision Commitment creates consistent signals Sustainability programs will be	Gill et al. Mintel Brønn & Vrioni Gao et al. Crittenden et al.	2008 2009 2001 2008 2011

	depicted and perceived as leading their industry		
Sustainability strategy is costly	The more sustainable one gets the more costly it becomes because sustainability is complex	Michaels	2011
	Certifications are costly	EFC	2009
	Auditing is costly	Kalmijn and Hermann	2009
	Signalling sustainability creates synergies which are costly to be altered	Golding	2009
Defining stakeholders who affect sustainability strategy development	Stakeholders affect sustainability strategy	Sharma and Henriques	2005
	Stakeholders can be diverse Stakeholders come from heterogeneous industries	Escobar and Vredenburg	2011
		Martin et al.	2004
	Stakeholders want to feel empowered	Rehbein e.al	2012
Establishing the company's ssustainability framework	A framework can be tactical, quasi-strategic or strategic	Rivera-Camino	2007
	Governance and managerial competence can establish the signalling framework	Makadok	2003
		Hoivik	2007
		Branzei et. al.	2004
	Companies' managers are confused about sustainability and its framework	Yuan et al.	2011
		Moore et al.	2012
Narrowing the information gap between senders and receivers	Companies should understand the different needs involved before sending signals Associate sustainability with added value	Pires et al.	2006
		Yuan et al	2011
		Burt	2000
		Lourenco et al.	2012

3.1.1 Sustainability is related to corporate identity and essence

The notion of a company is reflected in the definition of corporate identity, which is "the set of meanings by which an object allows itself to be known and through which it allows people to describe, remember and relate to it" (Van Rekom, 1997, p. 411). It is how stakeholders identify and differentiate one company from another (Cheng et al., 2008). From the point of view of managers, establishing a consistent corporate identity is vital for organizations in order to develop a competitive advantage (Kotler and Keller, 2009).

Sustainability as a valuable resource affects everything as far as stakeholders' needs are concerned (Seale et. al., 2010). Such needs are met by the design and type of

products that a company offers, to the way it responds to future opportunities (Lindgreen and Swaem, 2010; Weaver et al., 1999). When future opportunities lie within sustainability issues, these also relate to shaping corporate identity. Companies intrinsically involved with sustainability develop sustainability strategy because it is part of their corporate identity (Moore et al., 2012). Their sustainability strategy is unique and competitors cannot easily copy it. Literature suggests that resources linked with the essence of a company are perfectly inimitable because they are the outcome of one or more of the following reasons: (i) they are the result of a one of a kind circumstance in history, or else are "history dependent", (ii) they are the result of "causal ambiguity"', meaning that the competition does not understand how they affect performance, and (iii) they are a result of "complex social phenomena", such as the particular culture of a company, the interrelationship between a company's management and its employees, or because of a special bond developed between a company and its stakeholders (Barney, 1991; Rouse and Daellenbach; 1999 Miller, 2003).

Once a company understands its corporate identity, it can build it further through communication and signals towards its stakeholders, with the ultimate view of building a strong and solid relationship with them (Kotler and Keller, 2009). From a strategic perspective, corporate identity refers to how a company "delivers its identity to the public, how its stakeholders perceive its identity, and how an organization distinguishes itself from other organizations" (Cheng et al., 2008, p. 684). Effective signalling is critical in allowing corporate identity to flourish and get established (Cheng et al. 2008).

Therefore, when sustainability becomes part of corporate identity, it is included in the five major components of corporate identity as were initially defined by Schmidt in 1995 (Cheng, et al., 2008): (1) corporate culture; (2) corporate behaviour; (3) products and services; (4) communications; (5) market strategy. One way to build corporate identity is through communicating about the specific strategy and tactics a company adopts (Fombrum et al., 1996; Gotsi and Wilson, 2001). In the case of sustainability strategy, the antecedent, which can later evolve into an identifiable and continuous signal, is to identify why and how a company creates sustainability strategy. To do

this, many companies turn to establishing an accreditation system, or to becoming affiliated with certain organizations which offer such accreditation (Rao, 1994).

When a company's sustainability strategy is endorsed through certifications (Rao, 1994), or accreditation bodies (EFC, 2009), such accreditation signals become identifiable and continuous because they correspond to identifiable and continuous sustainability measures and certifications already established as an industry benchmark (Sharma and Henriques, 2005). Therefore, sustainability guidelines and accreditations will endorse a company's sustainability actions and give them credibility (Baum and Oliver, 1991). They are a powerful tool as promotional signals (Laferty and Goldsmith, 1999), because they help toward establishing a basic accreditation framework. Such accreditations represent reassurance of higher quality in products (Connelly et. al, 2011) and they safeguard a company in case negative media hype occurs about any of its products (Sharma and Henriques, 2005). Through signalling its association with accreditation bodies and systems, a company communicates its underlying qualities or intentions in regards to sustainability strategy. These signals help it grow its positive reputation amongst its stakeholders (Basdeo et al., 2006).

In addition, another important role that an identifiable and continuous signal plays in relation to sustainability infused corporate strategy is that it becomes a reassurance signal (Pollock and Gulati, 2007). Its role is not only informational but is also extended into: (i) a means for the firm to be noticed by stakeholders, (ii) it enhances a firm's capability to be amongst companies that stakeholders associate with sustainability best practices, (iii) it positions the firm amongst the important collaborators working towards 'greening' an industry (Pollock and Gulati, 2007). In this sense, identifiable and continuous sustainability signals become part of corporate identity; stakeholders can become associated with the corporation and understand it's signalling clearly (Van Rekom, 1997).

Therefore, as sustainability becomes part of a company's sustainability essence (Hunt, 2011), signals will revolve around sustainability objectives (Cheng et al, 2008), and reinforce the company's sustainability strategy as part of its corporate identity (Epstein, 2009).

3.1.2   High involvement in sustainability activity

The literature suggests that continuous and identifiable signals bring associations of higher quality (Kirmani and Rao, 2000). When a company produces high quality products, it transmits a signal about its 'high quality' as a competitive advantage. This signal will help its overall performance. By buying that company's products the recipients will discover that the products correspond to the signal the company sent in regards to the competitive advantage of high quality. However, if a company whose products are not of substantial quality, or else described as *products of low quality,* and signals that its products are of a higher standard than they really are, then the company is entering dangerous territory; if the recipients decide to buy the products they will discover that these are not up to the standard that signalling had led them on to believe, and this information asymmetry will damage the company's image, reputation and performance in the long run. Hence, it is better for the low quality company not to signal about the quality of its products at all (Kirmani and Rao, 2000).

The outcome of signalling in the above mentioned example, - to signal or not to signal in reference to quality - can be applied with sustainability as the variable which is associated with high quality. These factors lead to the following observation: In terms of incorporating sustainability in strategy there are two kinds of firms; high and low sustainability companies (Eccles et al., 2011). *High sustainability companies* are those that have been adopting a considerable number of sustainability policies for a good number of years, or those whose sustainability ethos is embedded in their core strategy and mission statement. *Low sustainability* companies are those that have no coherent sustainability strategy (Eccles et al., 2011). High sustainability companies are also intrinsically or both intrinsically/extrinsically involved in sustainability (Moore et al., 2012).

High sustainability companies are more likely to review how corporate strategy is perceived in terms of environmental, social, and ethical standards by external stakeholders than low sustainability companies (Eccles et al., 2011; Moore et al., 2012). Thus, we suggest that high sustainability focused companies use continuous signals about their sustainability strategy as the resource to improve performance. If such companies have developed a continuous sustainability strategy in a way that

supports their signals, then the signals will lead to a positive outcome emphasizing sustainability as a resource affecting performance. On the other hand, companies which are not focused on sustainability and apply it sporadically in their strategy, i.e. *low sustainability* companies, are unlikely to signal about their sustainability initiatives as much as high sustainability companies. For them sustainability is an area in which they are involved extrinsically (Moore et al., 2012) and on occasion poorly (Yuan et al., 2011), and signalling about sustainability can be a once off affair. Occasional signalling will create information asymmetry: stakeholders will not get what they would expect in terms of sustainability strategy (Kirmani and Rao, 2000) and will most likely become confused.

Therefore, we suggest that continuous signals enhance sustainability strategy effectiveness when the strategy is also continuous and identifiable and corresponds to the information conveyed by the signals. In the case of signalling sustainability the antecedent is high and continuous involvement with sustainability as a proof of a longstanding commitment to establishing strategy of a higher quality.

3.1.3   Visibility in relation to sustainability

One of the key attributes for a successful CSR (Corporate Social Responsibility) and CSP (Corporate Social Performance) strategy, and by extension engagement with sustainability initiatives, is how visible this strategy is to stakeholders.

Visibility refers to: "the extent to which internal and external stakeholders can observe and recognize Corporate Strategy", (Dentchev, 2004, p. 400). As visibility is also linked with signalling directly (Pollock and Gulati, 2007), through continuous and identifiable signals from a company, stakeholders understand what the company under question is engaging with in terms of strategic CSP and sustainability. Due to the fact that stakeholders can be critical of how CSR strategy develops (Dentchev, 2004) certain signals will be able to minimize ambiguity about corporate actions and their value to stakeholders (Pollock and Gulati, 2007). These types of signals are overt and covert signals, as were analysed in section 2.7 of chapter 2 of the thesis. Other signals are also rankings from the media (Rindova et al., 2005), endorsements from public figures and famous artists (Higgins and Gulati, 2003; Podolny, 1994), and

accreditation agencies and bodies (Baum and Oliver, 1991; Laferty and Goldsmith, 1999). Additional signals are announcements of sustainability corporate actions (Brønn and Vrioni, 2001), the inclusion of sustainability programs (Mallin et. al., 2012) and explicit auditing processes to improve social performance (Canning and Hanmer-Lloyd, 2007). All these types of signals can help towards building a legitimate corporate profile (Pollock and Gulati, 2007), by increasing the visibility of a firm (Dentchev, 2004). It is evident that they enhance visibility when they have a continuous and identifiable presence and do not come across as a one off activity. Therefore the visibility of one's sustainability strategy is an antecedent for effective sustainability signalling.

3.1.4   Corporate commitment to sustainability strategy

Commitment in regards to strategy development can help the image of a company and improve its reputation among stakeholders (Gill et al., 2008; Mintel, 2009). Strategy needs to be tied in to a company's mission statement with a long term vision that the company sticks to (Brønn and Vrioni, 2001). Strategy, therefore, has an unchangeable element which will be reflected by the unchangeable signals it sends out to its stakeholders. This action promises a level of quality and makes the signal stronger as it is more reliable (Connelly et al., 2011).   Sustainability marketing needs to be unchangeable as far as its main strategy principles are concerned, in order to bring long term positive effects to a company (Belz and Peattie, 2009).

Sustainability signals are used to communicate a company's commitment to sustainability strategy. They need to convey the message that for the company that chooses to send a sustainability signal, the importance in regards to the role that sustainability plays in this company's strategy is unchangeable and that the company is fully committed to it. This message will make the signal consistent (Gao et al., 2008), and leads to the proposition that companies which are committed to their sustainability programs will be depicted and perceived as the leaders of their industry in that area (Crittenden et at., 2011). Leaders will sent out unchangeable signals in regards to their strategy in order to communicate how committed they are to it (Gao et al., 2008).

Therefore we assume that the antecedent to commitment in sustainability strategy enables effective sustainability signalling.

3.1.5   Sustainability is costly

When defining what is meant by the term *costly signals*, Spence in his Nobel Prize acceptance speech in 2001 stated the following: "one can have a signalling equilibrium in which the costs of the signal appear to vary with the unseen ability characteristics in the wrong way. That is to say the costs of education (absolutely and at the margin) rise with ability, or more generally, with the unobserved attribute that contributes positively to productivity", (Spence, 2001, p. 410).

Spence uses the example of education to illustrate his point; however signalling is applicable to many other circumstances and disciplines such as marketing (Connelly et al., 2011). Effective signalling of anything is a costly affair, because to acquire something to signal about has a high cost involved (Spence, 1973, 2001). Sustainability is no exception to this rule. The more sustainable one aims to become the more it can cost one (Michaels, 2011): a company will need to search for the best strategic solutions which will permit it to become sustainable (Branzei et al, 2004). It might need to invest in R&D of new products which are more sustainable than conventional ones (Banerjee et al., 2003).It might need to review its production lines through auditing in order to find out which processes can become more sustainable (Kalmijn and Hermann, 2009). It might acquire certifications which are costly to attain (EFC, 2009). All these steps towards becoming sustainable are costly and such costs increase as the company strives to become even more sustainable. These steps "contribute positively to productivity" (Spence, 2001, p. 410), but their real costs are evident (Michaels, 2011).

Therefore, a significant cost in acquiring sustainability credentials is another antecedent of signalling sustainability. A costly signal involves all the strategic steps a company needs to take (Spence, 2001), prior to being able to call itself sustainable. This same process will also make the signal costly to be altered. As strategy development is costly and mostly unchangeable,   signalling will follow suit in regards to being costly. Signalling represents a marketing tactic that combines a ''mirror'' and

a ''window'' role to generate synergies in favour of sustainability practices (Golding, 2009).This proposition assumes that a company needs to pay the costs to develop a sustainable strategy and then signal about its activities.

3.1.6   Defining stakeholders who affect sustainability strategy development

As stated previously, incorporating sustainability in strategy may not always be straightforward, primarily because it means different things to different stakeholders (EFC, 2009). For example in a survey conducted by the Boston Consulting Group in collaboration with the MIT Sloan Management Review on the Sustainability Initiative, 70% of the companies participating in that research admit that they do not have a straightforward sustainability program (BCG, 2009). One important reason for this realityis because sustainability strategy is driven by different stakeholders or various needs and agendas (Escobar and Vredenburg, 2011).

Sustainability strategy is designed around the perspectives of stakeholders (Sharma and Henriques, 2005; Banerjee et al., 2003). When stakeholders are diverse, due to different geographical location, or socio-economic status (Escobar and Vredenburg, 2011), or because they are part of heterogeneous industries (Martin et al., 2004), sustainability initiatives may take different paths in order to meet the needs of all those different stakeholders (Escobar and Vredenburg, 2011). Therefore sustainability as "the value of a resource, which is a scarce factor…that embeds complex options on future opportunities", (Kogut and Kulatilaka, 2001, p. 74), may suggest different expectations from different stakeholders. These expectations affect the formation of sustainability strategy and how it is signalled, causing heterogeneity in signals (Dentchev, 2004).

Signalling theory suggests that any given company will create signals aimed at specific audiences and stakeholders (Spence, 1973). A company's stakeholders can choose to learn more about a company and can adopt or reject a company's products if they find them unsatisfactory (Pires et al., 2006). In the case of sustainability claims being part of a company's strategy, stakeholders can decide where they stand depending on the signals they are getting (Spence, 1973), and how empowered they feel (Rehbein et al., 2012).   Signalling sustainability in this sense is tricky. The

literature suggests that sustainability signals are sent directly to primary stakeholders, who are directly involved with a firm's financial decisions and strategy development (Sharma and Henriques, 2005). It is also usual that primary stakeholders also seek to know information in regards to sustainability issues (Connelly et al., 2011).

Therefore, the antecedent of effective signalling in this instance is to define the specific audiences for whom sustainability programmes are designed for, along the basis of their differentiated needs as stakeholder theorists suggest (Banerjee et al., 2003). For effective signalling, it is important that firms comprehend that specific audiences may have specific knowledge of certain aspects of a corporation (Spence, 1973), such as sustainability. Therefore, knowing exactly who one's stakeholders are in regards to sustainability strategy development is critical in order to design the appropriate signals for them. This knowledge is an antecedent prior to proceeding with signalling.

3.1.7   Establishing the company's sustainability framework

When companies adopt sustainability marketing profiles, they focus on a specific path; this, according to Rivera-Camino (2007), can be either: (i) on a tactical level, meaning that some companies are responsive to a specific sustainability goal, or (ii) on a quasi-strategic level, which reflects an absence of uniformity when it comes to issues of integrating sustainable ways in the company strategy, or (iii) on a strategic level, as then companies have integrated environmentally conscious systems on a micro and macro level in all marketing management operations.We noted previously that the companies which are intrinsically and intrinsically/extrinsically engaged with sustainability view their engagement with sustainability as part of their strategy (Moore et al., 2012), and are therefore involved on a strategic level, starting from the management.

However, as our previous analysis suggests there is heterogeneity in the understanding of sustainability and its practice (Mintel, 2009). This type of heterogeneity is not only the aftermath of differences in sustainability strategy (Rivera-Camino, 2007), but is a result of the combination of governance and managerial competence (Makadok, 2003). It is not rare that heterogeneity in information availability starts from within a firm

(Makadok, 2003). Managers are often confused as to what sustainability means (EFC, 2009, Mintel, 2009), have different interpretations of sustainability (Hoivik, 2007; Schmitt and Renken, 2012), or are deferentially predisposed towards it (Branzei et al., 2004).

Therefore, an important antecedent to signalling sustainability is for a company to have a clear sustainability framework of what it means on a strategic level (Rivera-Camino, 2007). The company should develop benchmarks (Vandekerckhove et. al., 2008), on which sustainability signalling can be based in order to become efficient and comprehensible. Having managers who know how to operate correctly will probably motivate stakeholders as well (Makadok, 2003). A sustainability framework is essential. Having a specific framework narrows any signalling gaps that occur andcaused due to information availability, disclosure and comprehension (Spence, 1973).

3.1.8   Narrowing the information gap between senders and receivers

We discussed previously that one of the main challenges in signalling sustainability is the existence of information asymmetry (Dentchev, 2004), which creates an information gap between senders and receivers of signals. Therefore, an antecedent to signalling sustainability is to understand the reasons why this gap exists and address those prior to any design of signalling sustainability.

Besides the needs and knowledge about sustainability of different stakeholders (Kirmani and Rao, 2000; Pires et al., 2006), there are other parameters involved that create such an information gap. These are the existing company reputation (Gao et al., 2008) and brand equity (Gotsi and Wilson, 2001).

Sustainability in strategy may be a delicate affair in cases of strong pre-existing brand equity in the minds of stakeholders (Burt, 2000; Yuan et al, 2011). Sustainability initiatives might confuse stakeholders or affect a brand in a different way from what was intended in the first place; if sustainability has not been part of the brand essence previously,it may result into causing a negative outcome (Otken and Cenkci, 2012) to the brand. The question remains: how should a company send sustainability signals

without changing the essence of existing brand equity? A possible answer could be to associate sustainability with the element of added value (Burt, 2000; Yuan et al.; 2011,Lourenco et al.; 2012) in the sense of high quality (Sharma and Henriques, 2005).In this way the sustainability signal builds upon the pre-existing brand equity and it is not a new element.

3.2   The Outcomes of Signalling Sustainability

The control of market knowledge regarding sustainability, while once restricted and managed by suppliers and companies (Keller and Kotler, 2009; Belz and Peattie, 2009), is now shifting towards becoming more accessible to consumers (Pires et al., 2006) and other stakeholders. The way that this knowledge is shifting is through signalling. There are many outcomes from signalling sustainability; signalling reinforces a company's sustainability profile (Connelly et al., 2011; Banerjee et al., 2003), because there are positive payoffs associated with sustainable performance (Gao et al., 2008).

Sustainability signals enhance corporate strategy at many levels (Table 3.2): sustainability is a source of competitive advantage (Eccles et al., 2011; Hunt, 2011), it builds trust (Maguire et al., 2009), it enhances a company's overall performance (Gao et al., 2008; Mallin et al., 2012) by initiating investment (Basdeo et al., 2006), and helps a firm towards higher financial goals (Russo and Fouts, 1997; DiMaggio and Powell, 1983; Shrivastava, 1995; Mitsuhashi and Greve, 2009; Berrone and Gomez-Mejia, 2009). Moreover, sustainability signals strengthen corporate identity (Walls et al., 2012), build brand equity (Lourenco et al., 2012) and help the firm to be open to future opportunities by considering future stakeholder needs (Belz and Peattie, 2009, Mallin et. al., 2012). Signalling is a means for a company to communicate its corporate profile and strategy (Spence, 1973) as a way to become strategically identifiable (Bantel and Osborne, 1995). As a source of competitive advantage (Hunt, 2011), sustainability differentiates a company from its competition (Cheng et al., 2008). In doing so, it enhances managers and employee morale and commitment to a firm (Mittal, 2007), while it improves CSR and sustainability expectations in the market (Connor, 2011), leading to further developments in the CSR and sustainability area (Walker and Wan, 2012).

Table 3.2   *The Outcomes of signalling sustainability*

OUTCOMES	CONTIBUTION	AUTHORS	YEAR
Signalling sustainability establishes trust	Differentiates a company	Canning and Hamnet-Lloyd	2007
	Offers leadership	Otken and Cenkci	2012
	Leading products	Kirmani and Rao	2000
	The company embraces the best interests of stakeholders	Maguire et al.	2001
	Signals develop trust as they set the company's prototype of sustainability actions	Basdeo et al.	2006
Signalling sustainability and the firm's profits	Signalling is associated with performance	Brønn and Vrioni	2001
		Pollock and Gulati	2007
	Increases stakeholders' confidence in company	Dentchev	2004
	Creates opportunities in new markets	Choi and Gray	2008
	Keep prices at desired levels by promising a smarter choice for consumers	Canning and Hamnet-Lloyd	2007
		Wright et al.	2006
	Customer loyalty	Gill et al.	2008
		Gima and Murray	1994
	Attraction for further financing	Basdeo et al	2006
	Improves performance on a multi-dimensional level		
Signalling sustainability affects investment	Sustainability is valuable due to important benefits for consumers	Pires et al.	2006
	Sustainability leads to more cost-effective production methods	Leonidou et al.	2011
	Sustainability initiates healthy profits	Porter and Van der Linde	1995
		Mittal	2007
	Sustainability portfolios are turned into signals		2008
	Sustainability attracts investment	Gao et al.	2011
	Sustainability brings long term profits	Eccles et al.	2012
	Sustainability affects the company's market value	Lourenco et al.	
Signalling sustainability strengthens corporate identity	The company's identity is linked with the welfare of its stakeholders	Walls et al.	2012
Signalling sustainability builds corporate reputation	Acting according to social guidelines improves reputation	Fombrun and Van Riel	1996
	Companies involve their stakeholders in the development of sustainability strategy which improves their reputation	Eccles et al.	2011
	High transparency helps to build reputation		
Signalling sustainability builds brand equity and enhances long term value	Sustainability helps a company become viable in the long-term	Mallin et al.	2012
		Eccels et al.	2011
		EFC	2009
	Responds to future opportunities	Belz and Peattie	2009
	Brand equity creates loyal	Gounaris and	2004

	stakeholders	Stathakopoulos	
Signalling sustainability enhances managers' and employees' morale and commitment	Signalling shows a clear communication In the eyes of the managers and employees the company becomes their "leader"	Cheng et al. Otken and Cenkci	2008 2012
Signalling sustainability increases expectations in society leading to developments in the area	CSR expectation started to grow since 2009 due to Al Gore's documentary "An Inconvenient Truth" Companies lobby for more environmentally specific regulations Sustainability benchmarks are necessary to make sustainability comprehensive	Walker and Wan Walker and Wan Vandekerckhove et al.	2011 2012 2008

The detailed analysis of each outcome follows.

3.2.1 Signalling sustainability establishes trust

Signalling about a coherently developed strategy -in our study sustainability- which is based upon standards and controls develops trust (Maguire et al., 2001). Rouseau et al. (2001, p. 395) define trust as: '*a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviour of another*'. When it can be predicted by stakeholders strategy -signalled in the form of corporate behaviour,-develops trust (Maguire et al., 2001). According to Choi et al. (2007, p.18): '*Consumer trust allows an organization to take risks that are fundamental to new business innovations and productivity. In the knowledge based society of the 21st century, the increasingly intangible and tacit nature of knowledge assets and resources requires a greater level of and understanding between consumers and organizations, taking into account the social welfare of both consumers and organizations*'.

Trust is not a one-dimensional notion; it can have many levels and meanings as far as economic exchanges are concerned (Choi et al. 2007). Establishing trust grows the relationship between a buyer and a seller, establishing positive associations such as credibility, reliability, emotional bonding and organizational values which differentiate one company from another in the eyes of buyers (Canning and Hamnet-Lloyd, 2007), or establishing it as a leading company (Otken and Cenkci, 2012). Leading companies offer high quality products and services and value their stakeholders (Kirmani and

Rao, 2000), and this is why stakeholders trust them (Otken and Cenkci, 2012). Moreover, sustainability focused firms also focus on social and environmental welfare (Choi et al. 2007), and this is reflected by a corporation's inclusion of CSR plans and sustainability strategy (Belz and Peattie, 2009). When stakeholders believe that the company embraces their best interests, including social and environmental welfare, then trust develops (Maguire e al., 2001).

Consumer trust is built by the information that stakeholders receive about a company. This information can be transmitted in the form of signals. When information flow is straightforward and clear it is less asymmetric (Spence, 1973), and trust building is enhanced (Choi et al. 2007). When information loses its asymmetry consumer trust is enhanced (Choi et al., 2007). Thus we suggest that signalling specific and straightforward signals to stakeholders helps reduce information asymmetry, reinforcing trust in the company as an outcome.

Sustainability in strategy establishes trust because it suggests growth along the triple bottom line parameters (Laughland and Bansal, 2011). This information is transmitted in the form of signals (Spence, 1973; Commission of the European Communities, 2001; Gao et al., 2008) aiming to persuade stakeholders that sustainability focused companies are investing in the future for the benefit of all involved, particularly for the company's stakeholders (Commission of the European Communities, 2001). Sustainability signals enhance the development of trust towards a company because they set the prototype of the company's sustainability actions that differentiate them from their competitors (Basdeo et al., 2006). It also frames a set of initiatives which stakeholders can base their judgments upon, in regards to which company to trust from those competing in a set market (Basdeo et al., 2006).When companies initially integrate sustainability into their corporate strategy, inter-organizational trust may be affected. Incorporating sustainability in strategy builds the confidence of stakeholders in a firm's actions (Mittal, 2007). This confidence that stakeholders have in a company, shows that they believe that the company sending sustainability signals can deliver on what it claims (Gao et al., 2008). When managers send out specific signals about their sustainability plans and actions, they feel empowered; they know that they are communicating their company's strategic resource, giving their company an

advantage (Mittal, 2007). The result is that, stakeholders also feel empowered and confident (Gao et al., 2008; Wright et al. 2006).

However, it is possible that if the inclusion of sustainability is not addressed strategically, it can affect established relationships negatively (Canning and Hamner-Lloyd, 2007). Therefore, we propose that signalling sustainability effectively can become the method to address potential disparities of trust and establish trustworthy relationships which will only positively affect a company's overall performance.

3.2.2   Signalling sustainability and the firm's profits

Signalling is an action which aims to create positive outcomes for a company, but is also associated with performance (Brønn and Vrioni, 2001)**.** Performance can be viewed in several ways, as a business metric which quantifies a company's strategies measure in regards to: return on investment (ROI), company reputation, income before interest, taxes, depreciation and amortization –EBITDA- among others (bitpipe, 2012). Some particular signals can develop the authenticity of a strategy – in our case sustainability strategy- which will also increase stakeholder confidence about a company (Pollock and Gulati, 2007).In return, positive outcomes are created by this signalling, including an increase in consumer loyalty schemes, new sales, opportunities in new markets and product development which are all contributing in higher financial performance (Burke and Logsdon, 1996; Dentchev, 2004). Last but not least, signalling sustainability suggests that firms are truthful to their stakeholders and aim at gaining their trust (Gill et al., 2008). For example: sending out truthful signals about a firm's sustainability operations will eventually benefit the firm, because if the information signalled is viewed as veritable, it offers the company the ability to keep its prices at desired levels and continue to be profitable (Coleman, 2011). We observe this phenomenon when companies signal their efforts to reduce their carbon emissions, or discuss the contents of their products. By signalling sustainability they aim to promote their corporate sustainability principles in order to differentiate themselves from their competition and increase their sales percentage. Examples of such signalling include the firms *Seventh Generation* and *Tom's of Maine,* which use their packaging as a signal to communicate information about the

effects of chemicals, enabling their stakeholders to make a smarter choice of products (Choi and Gray 2008).

If a process improves performance, then this process is rapid and seamless and will further motivate managers (Werbach, 2009). The debate regarding the environment is a unique opportunity for companies to rethink their operations and distribution methods and eliminate costs that burden not only the environment, but also the company (Kalmijn, and Hermann, 2009). Also, customers are loyal to companies they trust (Canning and Hamner-Lloyd 2007; Wright et al., 2006). Moreover, sustainability focused companies are more receptive to future opportunities, including attraction of further financing, and creation of a positive image for a firm and its product mix (Gill et al., 2008). All these factors improve a company's performance on a multi-dimensional level (Gima and Murray, 1994; Basdeo et al., 2006).

3.2.3   Signalling sustainability affects investment

Effective strategy can affect the reputation of an organization (Fombrun and Van Riel, 1996). By having a solid strategy, opportunities open up for adding value to products and services (Basdeo et al., 2006),   whereas in the absence of such strategy a company's offering loses value (Gao e. al, 2008). Corporate strategy integrates all corporate activity, including communications and signalling(Fombrun and Van Riel, 1996).

Strategy reflects the value of a company whose focal point is what consumers perceive to be valuable as it includes important benefits for them (Pires et al. 2006). Value helps secure funds and support from shareholders, investors and other influential bodies (Gao et al., 2008). As a valuable resource, sustainability strategyreflects how committed a company is at a corporate level towards working along the triple bottom line parameters (Belz and Peattie, 2009; Gladwin et al., 1995). Sustainability leads to more cost effective production methods (Lamming and Hampson, 1996), better and more valuable products (Leonidou et al., 2011), and a healthy profit for companies that produce them (Porter and Van der Linde, 1995). Strategic plans which involve 'greening' a company's operations into becoming more environmentally friendly, turns their sustainability portfolios into signals (Mittal, 2007). These signals

communicate the value of corporate behaviour to stakeholders (Bird and Smith, 2005) and become a compass for investors and analysts who are being asked to become involved by investing in that company (Gao et al., 2008). For example, the fact that a company is or is not included in the Dow Jones Sustainability World Index (DJSI) can affect a company's share price in the short term, because this is directly linked with its perception in the market via the DJSI signal (Robinson et. al., 2011).

The clear communication of sustainability helps to build relationships with stakeholders and attract investment (Fombrun and Van Riel, 1996), bringing long term profits (Eccles et. al. 2011). Therefore, signalling sustainability attracts investment (Eccles et. al., 2011), and affects the company's market value of equity (Lourenco et. al., 2012).

3.2.4   Signalling sustainability strengthens corporate identity

Signalling one's strategy (Spence, 1973; Gao et al., 2008) helps firms to also form and shape their corporate identity as well (Cheng et al., 2008). When sustainability is part of strategy it plays a part in strengthening corporate identity because it obtains corporate structures inclusive of sustainability objectives (Walls et al. 2012).

Certain signals strengthen or weaken corporate identity (Robinson et al., 2011). Signalling on a strategic level conveys the message of what the company's identity stands for (Cheng et al., 2007). Signals need to be consistent with strategic parameters as applied by a company, but also with how they support its corporate identity (Cheng et al., 2008).

Specific signals can minimize ambiguity about a company's future endeavours (Pollock and Gulati, 2007), strengthening a company's identity (Walls et al., 2012). For example, payments to shareholders by dividends are signals confirming that a firm is doing well, not only from a wealth creation angle, but also from the stance of the ethics of capital allocation in a company (He et al., 2011). These signals demonstrate that the company's identity is linked with the welfare of its stakeholders while strengthening its corporate image in that respect (Walls et al., 2012).

3.2.5   Signalling sustainability builds corporate reputation

Sustainability and the effects of a triple bottom line business venture are becoming something quite usual in modern western firms (Lindgreen and Swaem, 2010), especially in industries where competition is immense (Walls et al., 2012). Companies are encouraged to report about their social, environmental and ethical initiatives. They communicate aspects such as where they produce and source their products, and whether they comply with the expectations of modern western society as far as corporate performance is concerned (Hoivik, 2007). Therefore, corporate performance is directly linked and affected by a company's reputation (Brønn and Vrioni, 2001; Lindgreen and Swaem, 2010). A company which acknowledges the expectations of its stakeholders and conforms to them, grows its positive reputation and becomes stronger one (Phillippe and Durand, 2011). Positive reputation gives a company a competitive advantage (Barney, 1991). An empirical study from the early 1990s verifies that acting according to social guidelines improves reputation (Fombrun and Van Riel 1990). Positive reputation offers a competitive advantage enabling a company to increase prices or have additional investment options (Freeman, 1984; Fombrun, 1996).   These actions improve overall performance (Lindgreen and Swaem, 2010).

Companies classified as intrinsically or intrinsically/extrinsically involved with sustainability strategy, review their strategy in the quest to improve their corporate reputation (Eccles et al., 2011). They are also called high sustainability companies because of their involvement with sustainability in strategy for over a 20 year period (Eccles et al., 2011). These companies review how their strategy is perceived by stakeholders, because this strategy has been built and supported by having stakeholders involved in its development (Sharma and Henriques, 2005). Opening up dialogue with stakeholders, is a particularly direct way to discuss sustainability issues, find opportunities for development and understand stakeholders needs (Rehbein et al., 2012). Corporations that take action on the needs of their stakeholders become more powerful and improve their reputation at the same time (Sharma and Henriques, 2005).

Reputation is also built upon by companies involving their stakeholders in the development of their sustainability strategy. For example, in high sustainability companies, their management training evolves with understanding the needs and wants

of stakeholders. To do so, they analyse the results of the application of sustainable strategy and juxtapose feedback provided by stakeholders (Eccles et al., 2011). All this information is fed back to senior management so that corporate sustainability strategy can be accessed and tweaked where and when needed (Eccles et al, 2011). The results are discussed by stakeholders networks **(**Perez-Batres et al., 2011). Through these networks, which cannot be controlled by companies (Perez-Batres et al., 2011), stakeholders form their opinions about the value of products and services (Pires et al., 2006); that way stakeholders help a company to build its reputation. When sustainability is signalled in the form of company actions (Basdeo et al., 2006), networks are bound to discuss it (Pires et al., 2006). Signals of sustainability strategy or elements in products give the company a good reputation as the company becomes the 'preferred supplier' of such products (Pires et al., 2006:941.

The literature supports that signals from highly sustainability companies, also called intrinsically and intrinsically/extrinsically motivated in sustainability companies (Moore et al., 2012), *"incorporate a comprehensive set of data into a robust business case, which they then integrate throughout all relevant aspects of their operations to deliver measurable financial results"* (BCG, 2009, p. 5). High sustainability companies, report of performance derived from the application of sustainability actions in their corporate strategy (Eccles et al., 2011). Reporting itself is a form of signal because it discloses information on sustainability focused corporate behaviour (Gill et al., 2008).

On the other hand low sustainability companies or otherwise characterised as companies extrinsically involved in sustainability (Moore et al., 2012), do not place much emphasis on sustainability as part of their corporate strategy (Eccles et al., 2011). They tend not to signal about their sustainability actions, and when they do it is quite sporadic. Low sustainability companies view sustainability policies as *"externalities created by firm actions",* which are a reaction to governmental regulations imposed on companies (Eccles et al. 2011, p. 34). What happens when companies which do not belong to the high sustainability group signal about their sustainability initiatives? Earlier in the chapter we noted a study regarding the positive relationship between high quality companies and signalling (Kirmani and Rao, 2000). The study considers the comparative payoffs to high and low quality firms deriving

from signalling and non-signalling. It reveals that when a high quality firm signals about its high quality products and services, then the outcome is positive. If it does not, the outcome is negative.

If we adapt the Kirmani and Bao (2000) concept of high and low quality firms in conjunction with the findings in regards to the relationship between sustainability and economic performance (Eccles et al., 2011), we understand that greater transparency in communications, as far as signalling sustainability strategy in concerned, is one of the factors that lead to higher economic performance for high sustainability firms. When high sustainability firms signal about their sustainability strategy and credentials they can expect a positive outcome resulting from this signalling. But what happens if a high sustainability firm decides not to signal about its strategy in regards to sustainability? Is the outcome negative? Literature suggests that high value and therefore positive reputation, is created through the integration of all business activities (Gao et al. 2008). Business activities include everything from a solid strategic plan which incorporates sustainability actions, to corporate communications and signalling (Kotler and Keller, 2009). Therefore we propose that if sustainability as part of corporate strategy is not supported by a strong signalling platform, then the value of a company's strategy and its reputation with respect to sustainability weakens in the eyes of stakeholders. In addition, if a firm that is extrinsically engaged with sustainability signals its sporadic engagement with sustainability actions, it is possible that it will come across as being unreliable; these types of communication signals will not be consistent, and will lack depth in structure when compared with the communication and signals from intrinsically involved sustainability companies that utilise a structured strategy (Eccles et al., 2011). Lack of depth in sustainability strategy is also called 'green-washing' (Laughland and Bansal, 2011). Green-washing occurs when sustainability actions are a one off venture or a guerrilla tactic (Werbach, 2009). Green-washing signals cause a negative outcome to corporate reputation.

As noted above, any type of inconsistencies lead to asymmetry in information, affecting the veracity of signals (Dentchev, 2004). Therefore, it can be concluded that lack of depth in strategy creates information asymmetry is regards to signalling sustainability as well, and should affect reputation. Therefore, we propose that when sustainability is part of strategy in an organised and comprehensive manner which

reduces information asymmetry, it affects reputation positively. We also propose that a systematic and comprehensive signalling of sustainability can bring a positive outcome in regards to its performance as well.

3.2.6   Signalling sustainability builds brand equity and enhances long term value

For many companies, becoming sustainable is associated with helping oneself avoid negative effects from either a poor or myopic corporate strategy which excludes sustainability claims altogether, or green-washing (Werbach, 2011; Winston, 2010). This is a strategy followed by firms that are extrinsically motivated in sustainability (Moore et al., 2012). However, intrinsically motivated firms – also termed high sustainability firms (Eccles et al., 2011) - probably understand that being sustainable builds brand equity and enhances long-term viability in a highly competitive economic environment (Mallin et al.; 2012, Eccles et al. 2011; EFC, 2009). Stakeholders view a company positively when they can associate it with Corporate Social Performance and Social and Environmental Disclosure (Mallin et al., 2012). By incorporating sustainability into their strategies, companies invest by constructing positive relationships with their stakeholders (Gill et al., 2008), and work towards building long term value by responding to future opportunities (Belz and Peattie, 2009).

When managers take decisions that focus on long term development, this action creates a positive perception about the company, creates trust towards it (Choi et. al., 2007), and generates positive reputation (Fombrun andVan Riel, 1990), which strengthen a company's brand equity in the long run (Gotsi and Wilson, 2001). All these actions are instigated by signalling; it is through signals that stakeholders get informed about a firm's underlying quality and potential (Connelly et al., 2011). Underlying quality, as part of a company's reputation, also linked to brand equity, which helps a company build long term value (Kotler and Keller, 2009). Brand equity creates loyal stakeholders (Gounaris and Stathakopoulos, 2004). Therefore, we propose that signalling sustainability builds brand equity and by extension enhances a company's long term value.

3.2.7 Signalling sustainability enhances managers' and employees' morale and commitment to a firm

When communication is clear, organized and trustworthy, managers are empowered to communicate clear signals to their stakeholders and employees (Cheng et al., 2008; Makadok, 2003). When sustainability is well thought out and planned before being incorporated into strategy, it demonstrates that the company is acting ahead of its competition and beyond the expectations of stakeholders (Connor, 2011). Signalling allows managers to share this feeling of empowerment with their employees (Gao et al. 2008) and to build their employee commitment to the firm; by trusting their company, which in their eyes becomes 'their leader', employees have faith that the firm will look after their own interests (Otken and Cenkci, 2012). Therefore we suggest that with signalling sustainability internally, a company becomes a leader which takes care of its most valuable asset: its employees. This feeling will enhance employee morale and commitment to the company.

3.2.8 Signalling sustainability increases expectations in society, leading to developments in the area

"An Inconvenient Truth", is the title of the documentary produced by Al Gore in 2006, which brought to light all the issues regarding sustainability and environmentalism topics that until the time of the documentary's release were not signalled widely to the public (Walker and Wan, 2012). From that moment onwards, sustainability entered the thoughts of many companies, managers and their stakeholders. This documentary became a successful signal which started growing CSR and sustainability expectations from all who were exposed to it (Walker and Wan, 2012).

This example of engaging in sustainability initiatives and signalling them on a wide scale, helped to set the sustainability bar higher because society's CSR and sustainability expectations have kept rising. Nowadays, there are many corporations which will engage actively in growing the area of environmentalism in their industries and some will even lobby for more environmentally specific regulations from governmental institutions (Walker and Wan, 2012). If a signal such as a single

documentary can make such a difference, then all individual and group activity towards environmental management can only grow CSR and sustainability expectations much further. After all, for the last thirty years, organizations, companies and governments have been developing benchmarking tools such as: codes and regulations, accreditation bodies, reporting, auditing development and management, in order to make signalling sustainability more efficient and comprehensible (Vandekerckhove et al., 2008). The need for a signalling sustainability framework is more evident and pressing than ever.

3.3   Discussion and conclusions

Signalling on a strategic level should convey the message of a company's philosophy in order to achieve information homogeneity between how the company wants to be perceived and how stakeholders really perceive it (Cheng et al, 2008). Sustainability as a resource of competitive advantage offers many opportunities for growth (Mallin et al., 2012; Eccles et al., 2011; Mitsuhashi and Greve, 2009; Russo and Fouts, 1997; Shrivastava, 1995). By studying the literature, the present research arrived to the conclusion that signalling sustainability can help a company to create further growth opportunities on many levels and not just economic.

Signalling sustainability can support stakeholders to better understand what the company stands for in regards to sustainability and how it commits to that stance (Connelly et al., 2011). Signals explain the incentives behind a firm's particular strategy/product/corporate behaviour (Cronin et. al., 2011; Kirmani and Rao, 2000). Signalling about strategic resources such as sustainability, is decided after the top management reviews its implementation and looks whether it has positive or negative outcomes for the company and its brands (Branzei et al., 2004). It then assesses its effects on public opinion (Kim and Radar, 2010), and analyses stakeholders' pressure (Rivera-Camino, 2007). These factors currently affect how signalling strategy is formed in regard to sustainability. When signalling sustainability, a company should be able to follow through on all its signals otherwise it will compromise its sustainability strategy (Dentchev, 2004). Stakeholders will eventually find out which companies endorse and carry out comprehensive sustainability plans, and which

companies carry out superficial initiatives in regards to sustainability (Mintel, 2009; Walker and Wan, 2012).

Signalling theory focuses on the importance of signals being effective. Effective signals are credible, comprehensible and trustworthy; they bridge the asymmetry of information gap between senders and receivers (Spence, 1973). Effective signals are actions and information which should be directed towards filling a gap in case there is asymmetry in knowledge (Spence, 1973). But what happens when companies try to signal complex and non-linear strategic resources such as sustainability? Signalling sustainability needs to be effective in order to achieve all the positive outcomes mentioned above. The literature proves that sustainability signalling is quite challenging and there is much room for further development (Yuan et al., 2011; Rämö, 2011).

There is an oxymoron here: the concept of sustainability and its practice due to its heterogeneous nature, its rarity, inimitability and non-substitutable nature (Barney, 1991), is a unique resource which can lead to a competitive advantage (Hunt, 2011). However, these unique attributes of sustainability make its signalling heterogeneous, partial and varied. This leads to information asymmetry which becomes an obstacle to the process of signalling (Dentchev, 2004). The uncertainty stakeholders may experience about the quality of the sustainable products provided by sellers (Lindgreen and Swaem, 2010; Choi et al., 2007), or by the variety of sustainability signals that companies sends out are examples of such information asymmetry (Kirmani and Rao, 2000). Stakeholders presently find signalling sustainability challenging to understand; (i) there is heterogeneity and information asymmetry deriving from the signalling of companies about such strategy (Connelly et al., 2011), and (ii) there is asymmetry in their level and scope of knowledge of such sustainability matters (Mintel, 2009; Joergens, 2006). The obvious reason is that stakeholders have different skills and knowledge in regards to sustainability (Cheng et al. 2008).

As far as corporate sustainability strategies are concerned there are many ways to apply sustainability (Makadok, 2003; Tseëlon, 2011) or to disclose it (Gill et al., 2008).All these factors deter the creation of a commonly used sustainability signalling framework. There is no one set sustainability framework, upon which companies can

base their sustainability strategy or measure up (Branzei et al., 2004, Yuan et al. 2011, Moore et. al. 2012). As a result, even if there are many sustainability signals around, these do not comprise one single language to signal sustainability. Should not the same conditions which allow companies to signal quality effectively - by using clear and credible signals in order to minimize ambiguity (Pollock and Gullati, 2007) - also apply when companies wish to signal sustainability?

The analysis of the literature points us to the assumption that prior to signalling sustainability a company should identify, review and understand the antecedents that set its sustainability strategy on which its signalling will be based upon. Antecedents of sustainability should be identified to avoid the effects of ineffective sustainability signals. Such negative effects include: heterogeneity in the type and quality of signals (Dentchev, 2004), information asymmetry (Sharma and Henriques, 2005), and partial signalling (Hoivik, 2007; Gill et al., 2008). Understanding the antecedents to sustainability strategy also helps to avoid green-washing (Winston, 2010; Werbach, 2011). As sustainability is a strategic resource (Banerjee et al., 2003), it is necessary to know where sustainability strategy generates from prior to deciding what to signal and how to signal it. Reflecting upon the antecedents of sustainability is a very important step, because if signalling is done without it, then a company might jeopardize its positioning amongst the cohort of sustainability focused companies (Lindgreen and Swaem, 2010). It might also compromise its efforts in becoming sustainable altogether (Dentchev, 2004). Moreover, sending ineffective signals may adversely affect a company's performance negatively due to negative comments by receptors of such signals (Connelly et al, 2011).

Antecedents in signalling help signals become more effective: antecedents can set a company's framework of sustainability strategy that can then be communicated to its stakeholders (Basdeo et al., 2006). They also minimize ambiguity (Kirmani and Rao, 2000),when different stakeholders are involved (Sharma and Henriques, 2005), or when there are differences in knowledge (EFC, 2009; Mintel, 2009), skills and intentions (Basdeo et al.; 2006, Mallin et al., 2012), that derive from heterogeneous companies, stakeholders and their environments (Wells 2012).

The quality of sustainability signals is found at: the establishment of corporate identity in relation to the meaning of sustainability to a firm (Cheng et al., 2008; Maguire et al., 2001); strategic planning of sustainability initiatives (Dentchev, 2004; Sharma and Henriques, 2005; Eccles et. al., 2011); acknowledging that the visibility of a firm in relation to sustainability is very important (Pollock and Gulati, 2007); and obtaining an understanding of how sustainability signals should be planned (Connelly et. al., 2011). Other important antecedents for effective signalling include: following through on corporate sustainability commitments (Gill et al., 2008, Mintel, 2009); developing sustainability as a source of competitive advantage (Hunt, 2011, Epstein, 2009); and understanding the costs involved in sustainability, whether they are obvious costs (Michaels, 2011) or the possibility of penalty costs (Connelly et al., 2011). Last but not least, identifying to which stakeholders sustainability strategy is aimed at (Sharma and Henriques, 2005), addressing their level of knowledge and understanding about sustainability issues (Pires et al., 2006), comprehending their precise requirements in order to send suitable signals (Kirmani and Rao, 2000), and establishing a sustainability framework in order to bridge the gap of information disclosure of sustainability strategy (Connelly et al., 2011), are all antecedents of sustainability which need to be examined prior to the design of any sustainability signals.

This process of setting antecedents is not only to protect a company from any drawbacks of ineffective signals, but to ensure that its signals are trustworthy. Trustworthy sustainability signals maximise the positive outcomes that sustainability strategy can bring. Such outcomes are: trust development (Maguire et al., 2009; Connor, 2011), improvement of performance (Gao et al., 2008; Mallin et al., 2012), profit and investment development (Eccles et al., 2011; Gao et al., 2008; Fombrun and Van Riel 1996), positive reputation building (Bronn and Vrioni, 2001; Lindgreen and Swaem, 2010), reinforcement of corporate identity (Kirmani and Rao, 2000; Fombrun and Shanley, 1990), brand equity development (EFF, 2009), and the creation of future prospects through differentiating oneself from the competition (Belz and Peattie, 2009; Cheng et al., 2008). Moreover, by signalling sustainability a company improves morale (Makadok, 2003), and helps to build CSR and sustainability expectations in its industry and environment (Walker and Wan, 2012, Vandekerckhove et al., 2008). A schematic depiction of the relationship between antecedents and outcomes in relation

to signalling sustainability is depicted with figure 3.1 below, which shows graphically how antecedents of sustainability affect sustainability signalling:

Figure 3.1: How antecedents of sustainability affect signalling sustainability

Antecedents of signalling sustainability	Signalling sustainability/ Signalling Fit	Outcomes of signalling sustainability
Sustainability is related to corporate identity		Profits
High involvement in sustainability activity	**Criteria for effective signals**	Affects investment
Sustainability is visible	• Identifiable and Continuous	Strengthens corporate identity
Commitment to sustainability strategy	• Inimitable • Costly	Builds corporate reputation
Understand sustainability is costly	• Reduces information asymmetry	Builds brand equity / enhances long term value
Define the knowledge and needs of stakeholders		Enhances morale internally
Establish a company sustainability framework		Increases sustainability
Narrow the information asymmetry of sustainability signals		

3.4 The Gaps in the Literature: The signalling environment and the signalling framework

The analysis of the literature relevant to the topic of signalling sustainability identified two main gaps that are addressed in the empirical stage of this research.

3.4.1 Gap: The Signalling Environment

One topic that the corresponding literature has placed little emphasis on the question of where *-the environment-* a company signals. The environment plays an important role to the effect of the signalling process (Connelly et. al., 2011). Questions that arise

from the literature are: Why does the environment of signalling sustainability affect the effectiveness of signals? What are there the similarities and differences between companies which signal sustainability when operating in a similar environment?

The empirical research will focus on private companies belonging to the cluster of companies intrinsically involved with sustainability (Moore et al., 2012) as part of a similar signalling environment. It will explore the development of their sustainability strategy, in other words why companies signal sustainability. The empirical study will explore the defining factors that dictate, why something is said and what will be said (Rämö, 2011). It will focus on how companies operating in a similar signalling environment understand sustainability in order to convey sustainability credentials.

3.4.2   Gap: The existence of information asymmetry

The other topic where the literature ascertains an opportunity for further research in signalling sustainability, *is the existence of information asymmetry* (Mintel, 2009; Davies et al., 2010).Presently, the signalling framework of the narrative of sustainability is not set and keeps evolving (Baden and Harwood, 2012). Therefore, companies are still looking for the best way to signal sustainability in order to gain more legitimacy for all their efforts in that area (Castelló and Lozano, 2011). In other words they are still looking to create a connection between a signal and the underlying quality it represents, otherwise called *a signal fit* (Connelly et al., 2011). In particular, if they are part of the private company sector, they seem to be in disagreement with how current sustainability and CSR actions are reported today (Baden and Harwood, 2012). As we noted earlier, this type of reporting for such companies just helps larger corporations disguise unethical and anti-environmental behaviour and avoid penalty costs (Connelly et al., 2011). The reporting system does not represent the sustainability initiatives smaller companies acquire (Baden and Harwood, 2012), but most importantly it does not set a signalling framework which can be used by all because of the existence of information asymmetry. Therefore, the issues on which the empirical stage of the research focuses upon in order to address the second gap in the literature, is the existence of information asymmetry and how private companies intrinsically engaged with sustainability respond to it when they signal sustainability.

Last but not least, the empirical stage of the research aims to explore what companies signal about sustainability and the ways they signal it. It will also explore empirically the antecedents of sustainability as private companies intrinsically engaged with sustainability comprehend them. Do they think that sustainability antecedents are necessary prior to signalling sustainability? Do antecedents for them help minimize information asymmetry in their signalling environment? Do the antecedents previously presented in the literature suffice for the needs of a private company intrinsically engaged with sustainability as a necessity for effective sustainability signalling? These questions will also be explored during the empirical research stage of this study in order to identify which ways companies use to send out signals, and whether such signals achieve signalling fit.

3.5   Contribution of the research

To summarize the opportunities that arise for further research, there are three main areas that the empirical research will concentrate on: (a) why do private companies that are intrinsically engaged with sustainability signal sustainability?(b) What do they signal about sustainability? (c) How do they signal sustainability?

These propositions are examined in the context of sustainable fashion in Britain, which is worth around £175 million (Mintel, 2009). The reason this industry was chosen among others is because fashion in its entity- after food, energy, housing and transportation- is the fourth most significant polluter of the environment as shown by the EIPRO project (Tukker et al., 2006). Moreover, the sustainable fashion industry is part of retail (Mintel, 2009), where products and services convey the message of corporate strategy and strategic values directly to their stakeholders (Tungate, 2008). Everything regarding the way a product is manufactured (design, materials and production processes), how it is offered (product distribution, appearance in a "brick and mortar" retail space, or a virtual shop), to the way products communicate their benefits (design, style, material type, use) also reflects the corporate strategy that strives to make companies and products unique and different from one another (Cheng et al., 2008). Therefore, in such a market, using overt and covert signals (Herbig, 1996) to communicate corporate sustainability is critical to companies and their stakeholders (Cheng et al. 2008). The sustainable fashion niche promotes values such

as: quantifiable consumption (Giltsoff, 2009), sustainability standards in production, manufacturing, distribution and retailing (Joergens, 2006), and is believed to have set the pillars of signalling sustainability in the fashion industry (EFC, 2009; Hustvedt and Dickson, 2008). Companies that are intrinsically involved with sustainability in this sector belong to the private category.

3.5.1 Academic Contributions

There are several academic contributions that derive from this research: Initially the research aims to identify the capabilities which urge companies intrinsically engaged with sustainability to signal sustainability as the valuable strategic resource it constitutes for them. Next, it contributes to the literature by examining the context of sustainability signals: why companies belonging to a similar signalling environment signal sustainability, what do they signal about sustainability, and how do they signal sustainability to reap the positive outcomes of engagement with sustainability strategy. Last but not least, the present research adds to the literature of signalling since it will reveal what determines the effectiveness of sustainability signals in a set signalling environment.

3.5.2 Industry implications

There are also a few industry implications emerging from this research topic. As the signalling environment offers an opportunity for further research (Connelly et al., 2011), this research explores how signalling sustainability affects intrinsically sustainability oriented companies in a specific environment, such as the fashion industry. It explores the parameters that make sustainability signals effective for such companies, and the parameters that limit the effectiveness of their signals. Through the empirical study the limitations in signalling sustainability in a specific environment will be explored as well.

3.6 Chapter summary

Presently, academic and empirical research is still reviewing how sustainability should be signalled more effectively to stakeholders as a strategic resource. The way that

stakeholders learn about a company's strategy is through the signalling process (Spence 1973, 2001). Sustainability as part of corporate strategy can prove to be a valuable asset for a company, and in time it improves performance on all levels (Hunt, 2011; Eccles et al., 2011; Branzei et al. 2004; King, 2000) and can be communicated through the signalling process.

Antecedents of sustainability are the basis of framing qualitative signals in order to signal sustainability effectively. Even though, the literature shows us that signalling sustainability can have many positive outcomes on corporate performance (Dentchev, 2004; Pollock and Gulati, 2007), with the most frequently noted ones presented in the "Outcomes" section of this chapter, there is still lack of a signalling sustainability framework.

The next phase of the research examines empirically the context of signalling sustainability in respect of why companies signal sustainability, what do they signal about sustainability and the ways they signal it.

The next chapter presents the methodology for the empirical research.

4.0   Introduction

The objective of this chapter is to present the methodology and reasoning that led to the selection of qualitative research as the most appropriate methodology to explore the research objectives of this study. Qualitative research was utilized to determine new insights and understand why private companies intrinsically engaged with sustainability signal sustainability, what they signal about sustainability and the ways they signal it. It also discusses why phenomenological research was selected in data gathering. The chapter presents the industry setting where the study takes place – the sustainable fashion sector in the UK. It continues with a presentation of access gathering mechanisms, the different phases of gathering data, the selection process leading to company participation in the research and the avenues via which how consent was obtained by participants. The chapter concludes with a discussion of data analysis procedures, the coding process, the trustworthiness of the data and the limitations of the methodology.

4.1   Gaps in the literature

Currently, the literature identifies the need for further research to help clarify the value of sustainability as a business practice and how it can further help a firm attain its goals (Schmitt and Renken, 2012). It calls for deeper insights on how signalling can further develop the value of sustainability into an advantage (Yuan et al., 2011). The present research seeks to further explore insights, derived from signalling theory and CSR literatures, in the environment of private companies intrinsically engaged with sustainability. The empirical study focuses on why companies signal sustainability, what they signal about sustainability and the ways they signal it. The study aims to interpret why and what do companies signal about sustainability and how they signal sustainability in order to achieve positive outcomes: trust development (Maguire et al., 2001), improvement of performance (Gao et al., 2008; Mallin et al., 2012), profit and

investment development (Eccles et. al., 2011, Gao et. al., 2008; Fombrun and Van Riel, 1996), positive reputation building (Lindgreen and Swaem, 2010), reinforcement of corporate identity (Kirmani and Rao, 2000), brand equity development (EFF, 2009), the creation of future prospects through differentiating oneself from the competition ((Belz and Peattie, 2009; Cheng et al., 2008), the improvement of company morale (Makadok, 2003), and helping towards building CSR and sustainability expectations in the private environment as well as in an overall industry (Walker and Wan, 2012; Vandekerckhove et al., 2008).

The research concentrates on: (a) Why private companies, intrinsically involved with sustainability signal? (b) What do companies signal about sustainability? (c) The ways they signal sustainability, in order to determine the quality of their sustainability signals. The signalling environment of private companies has been selected and the companies reviewed are all sole proprietorships or partnerships. Private companies were selected for three reasons. First and foremost, because such types of companies comprise 99% of enterprises in Europe (Baden and Harwood, 2012); second, as far as CSR and sustainability communication is concerned, private companies of one to two owners, adhere to the belief that current interpretations of CSR and sustainability as presented by corporations, do not only damage the image of private companies which are intrinsically involved with sustainability (EFC, 2009), but also fail to represent their niche strategy (Baden and Harwood, 2012). Third, changes in niche sectors often start from private companies (Mintel, 2009).

4.2   Research objectives in regards to gaps in the literature

The following research objectives - also introduced in Chapter 3- guided the research design. The first objective is:

(a)   Why private companies that are intrinsically involved with sustainability signal sustainability?

The literature proves that with complex and non-linear resource values, such as sustainability, signalling is quite a challenging task leaving much room for development in this area (Yuan et al., 2011; Castelló and Lozano; 2011, Rämö, 2011).

The current research explores empirically the mechanisms that create a connection between a sustainability signal and the underlying quality it represents, otherwise known as *a signal fit* (Connelly et al., 2011) and focuses on the reasons that instigate signalling sustainability by private companies.

(b)   What do private companies, belonging to the cluster of companies intrinsically involved with sustainability, signal about sustainability?

Presently, the narrative of sustainability, from how it is defined, to the context it is developed (Aguinis and Glavas, 2012), to how it is measured (Dickson et al., 2012), to language and imagery (Rämö, 2011) keeps evolving (Baden and Harwood, 2012). The literature reveals that companies are still searching for the ideal way to signal sustainability in order to gain more legitimacy for their concerted efforts in that area (Castelló and Lozano, 2011). The current CSR reporting manner of large corporations does not appear to represent the sustainability initiatives of private companies (Baden and Harwood, 2012). Therefore, a universally accepted signalling framework does not exist. The goal of the empirical stage of the research aims to explore what do private companies signal sustainability about sustainability.

(c)   The ways companies signal sustainability

Theory suggests that when companies use clear and credible signals in order to minimise ambiguity in regards to quality, such signals are effective (Pollock and Gullati, 2007). We suggest that the same processes should occur with sustainability signals also. Signals in relation to quality are effective because they are credible, comprehensible and trustworthy (Pollock and Gullati, 2007), and this principle is examined here, with the signal being sustainability. It is proposed that effective sustainability signals should be actions and information directed towards filling a gap in any information asymmetry that currently exists between signalling companies and the receivers of their signals. In order to explore these concepts the empirical research also focuses on the ways companies signal sustainability.

Drawing from the literature review consisting of chapters two (2) and three (3), three main gaps are identified, which are addressed in the empirical stage of this research:

1. The signalling environment and its importance to the effectiveness of the signalling process (Connelly et al., 2011).

2. The existence of information asymmetry in regards to signalling sustainability (Mintel, 2009; Davies et al., 2010).

3. The effect of information asymmetry on the effectiveness of signals in the signalling environment of private companies intrinsically involved in sustainability strategy.

The literature review combined findings from CSR and sustainability and signalling theory literatures, in order to explore the effects of the signalling environment and information asymmetry of private companies in setting effective sustainability signals.

Empirical research further explores:

(i)   Do antecedents, revealed by the literature as necessary for larger corporations, also help private companies to create more effective signals?

(ii)   Are antecedents a necessity prior to signalling sustainability for private companies intrinsically engaged with sustainability?

(iii)   Why companies signal sustainability?

(iv)   What sustainability signals do companies send?

(v)   What are the similarities and differences between private companies in why they signal sustainability, in what they signal about sustainability and in the ways they use to signal it when operating in a similar environment?

4.3   Research Design: Ontology and Epistemology

It is important that academic research is conducted under an appropriate scientific paradigm and a philosophical underpinning. The science historian Thomas Kuhn in his book *The Structure of Scientific Revolution* offers the definition of a paradigm as: "universally recognized scientific achievements that, for a time, provide model problems and solutions for a community of practitioners", (Kukn, 1996, p.10).

Prior to any empirical research undertaken, the researcher needs to identify what will be examined, the type and structure of questions that will facilitate answers to the defined lines of investigation, and the context within which the results of the study will be interpreted under a specific philosophical underpinning. A philosophical underpinning is important in order to identify the ontology, epistemology, and axiology appropriate to the research and along with the type of data collection technique that is most appropriate (Saunders et al, 2009). "Ontology is the *reality* that researchers investigate. Epistemology is the relationship between that reality and the researcher, and methodology is the technique used by the researcher to investigate that reality" (Healy and Perry, 2000, p.118), while axiology is "the researcher's view of the role of values in research" (Saunders et al, 2009, p. 119). Ontology and epistemology are mutually dependent, since "to talk about the construction of meaning [epistemology] is to talk of the construction of a meaningful reality" (Crotty, 1998, p.10). Epistemology is "how we know what we know" (Crotty, 1998, p. 8).

The ontology, epistemology and axiology paradigm of any research can depend upon four different philosophies. These are: (1) Positivism, which is the research philosophy of examining a social phenomenon by "external, objective and independent social factors" (2) Realism, which interprets a social phenomenon objectively without the interpretation being affected by the research subjects' thoughts and knowledge (Saunders et al., 2009); (3) Interpretivism, which reflects subjective views of the research subjects which can change over time (Saunders et ala, 2009; and (4) Pragmatism which indicates that the "nature of reality or being is external, multiple in order to best answering a research question" (Saunders et al., 2009:119).

For the purposes of this research, the researcher selected *interpretivism* as the philosophical underpinning and *phenomenological research* as the ontology foundation.

4.3.1   Phenomenological Research

The research aims to comprehend managers' behaviours as "social actors" and   it seeks to discover the strategy behind sustainability signals (Saunders et al, 2009).

Each person participating in this research has their own view of the topic of sustainability and therefore the focus of the research lies within the task to identify and assign meaning to these different points of views in the particular context of signalling (Creswell, 2003). Phenomenological research grasps the real meaning of a phenomenon through the practice of studying a smaller sample of participants via an expanded discussion and involvement (Creswell, 2003). Hence the researcher identifies the *real meaning* of human experiences concerning a phenomenon, as described by the participants in the study. Understanding how the participants *live their experiences* is what defines phenomenology as a philosophical stance (Creswell, 2003). It involves studying these subjects for a prolonged timeframe to identify patterns of a particular behaviour or stance. In this study, phenomenological research helps the researcher to find out what are true experiences of private companies in regards to the effects of signalling sustainability.

Through the process of phenomenological research, the researcher tied in her experiences in order to better comprehend the experiences of the participants. Phenomenological research enabled this study to initially follow socially constructed knowledge in regards to sustainability and examined the research questions through the participants' knowledge claims, strategies, and methods (Creswell, 2003).

4.3.2   Interpretivism

Under the philosophical underpinning of interpretivism, signalling sustainability is examined as a phenomenon and as socially constructed knowledge. Creswell describes the aim of socially constructed knowledge as: "relying as much as possible on the participants' views of the situation being studied. The questions become broad and general so that the participants can construct the meaning of a situation, a meaning typically forged in discussions or interactions with other persons. The more open-ended the questioning, the better, as the researcher listens carefully to what people say or do in their life setting"(Creswell, 2003, p. 9). Participants of this research become "co-producers" to not only this research but also to its outcome. Table 4.1 based on Saunders et al. (2009), shows graphically how interpretivism applies to the needs of this research:

Table 4.1: Reasons why Interpretivism was selected for the purposes of this research

Ontology	Sustainability signals are a result of the interpretation of sustainability which is a socially constructed phenomenon (phenomenological research). Signals keep evolving.
Epistemology	Meanings to signalling sustainability as part of phenomenological research are regarded as acceptable knowledge. The research focuses on the details of signalling sustainability as a social phenomenon, the motivating factors behind it and its reality.
Axiology	The researcher's values play a significant role in all stages of the research and through those the research becomes credible. The researcher becomes part of the research and interpretation of research findings is interpretative.
Data Collection Technique	Qualitative research is selected. It focuses on small and specialized samples (private companies), by using depth questions and collecting rich data.

The study of sustainability as a phenomenon is also part of environmental management. It initially emerged about fifty years ago as a "necessary evil" and then as an integral part of strategy development for governmental institutions, non-governmental organizations and companies (Keen et al., 2005). Therefore, under the prism of interpretivism, we examine sustainability signals as a socially constructed phenomenon through first hand experiences of people who are directly involved with it.

Following these guidelines, this research advocates that in regards to signalling sustainability, there is a reality behind it whether we are aware of it or not. This reality is further explored through finding out who the actors are and how their perceptions created it as a social phenomenon (Crotty, 1998). Therefore, interpretivism was adopted to comprehend the phenomenon of signalling sustainability in context (Carson et al., 2001), and in order to focus upon the specific situation of each respondent in regards to meaning or motivational reasons which instigated such signalling (Saunders et al., 2009).

4.4   Method– Qualitative Research

The present study entailed qualitative research. A qualitative approach allows the researcher to explore the research questions in depth by using rich data (Silverman et al., 2002; Clark et al., 1998; Saunders et al., 2009).

These reasons necessitate the application of an inductive methodology such as qualitative research. While exploring the literature on the topic of sustainability, and its relationship to signalling, it was established that there is a lack of a theory capable of explaining the sustainable credentials of companies and how these can be signalled effectively. Qualitative research offered the ability to review a marketing pattern and an actuality in its entirety. Qualitative research is appropriate when there is limited knowledge of a topic, such as in the case of signalling sustainability, due to its ability to allow for a detailed and deep search of the topic (Creswell, 2003). Following the review and analysis of CSR and sustainability literature in regards to signalling, we surmise that there is limited knowledge of the avenues through which signalling sustainability becomes effective. Therefore the literature on this topic will be expanded by studying: (a) the phenomena, in regards to signalling sustainability are currently taking place, (b) explore new insights in the area of signalling sustainability in researching how private companies signal sustainability, (c) understand the mechanisms by which private companies instigate sustainability signals that are fit to communicate the complexity, importance and value of sustainability as a valuable resource. Utilizing qualitative research the researcher addressed such questions in depth and detail. Therefore, phenomenological research was applied as the qualitative approach.

4.4.1   Research Context

The industry context chosen for this research is the signalling environment of private sustainable fashion companies in the UK, a niche segment of the fashion industry. The UK is among the most influential countries in the area of sustainability strategy development in fashion and textiles (Mintel, 2009), while the fashion and textiles industry is amongst the most polluting industries (Siegle, 2008; Allwood et al, 2006; Birtwistle and Moore, 2007). The selection of the study of private companies is

consistent with the findings in the literature review of Chapter two (2). Research reveals that there is a variation in how sustainability is applied by private companies, as they have unstructured ways of introducing CSR initiatives and sustainability in their strategy, such as: developing personal relationships with stakeholders, and not institutionalizing their CSR practices (Lindgreen and Swaen, 2010).

Additional reasons for choosing sustainable fashion as the industry setting of the research are:

a. Sustainable fashion is a sector of the fashion industry which is mostly occupied by private companies.

b. Sustainable fashion companies are intrinsically involved with sustainability strategy (Moore et al., 2012) and therefore sustainability is part of their corporate mission (Mintel, 2009; EFC, 2009).

c. Sustainable fashion is an exciting segment of the fashion industry. It constantly changes; new innovations, ideas and concepts take place as the sector is still evolving (Mintel, 2009). As a result sustainability signals are in a state of dynamic evolution also.

4.4.2   Industry setting: The sustainable fashion sector in the UK

The industry setting which sets the context of this research study is the signalling environment of private sustainable fashion companies in the UK.

Sustainable Fashion in the UK is a growing niche (Mintel, 2009). It initially made its appearance in the mid-1970s by being directly linked with the environmental movement (Siegle, 2008), and social changes (Sajhau, 2000; Van Tulder and Kolk, 2001). It took a more prominent position in the fashion industry in the 1990s (Thomas, 2008) as consumers actively showed an interest in environmental and ethical issues, enunciated by pressure groups, GMOs, the press and international conferences (Birtwistle and Moore, 2007). In February 2009, during London Fashion Week, the Sustainable Clothing Action Plan was launched (SCAP). SCAP comprises the response of the British Fashion Council to the impeding pressure to tackle the problem of fast consumption fashion. For the first time in Britain, an official body such as the British Fashion Council, focused on putting pressure on a high polluting industry to work towards a more sustainable business model and bring a "change in the face of

fashion" as Lord Philip Hunt, Minister for Sustainability in 2009, stated (Bateman, 2009). SCAP is currently being supported by approximately 300 retailers with a growing tendency. In terms of quantified data, some of the issues that SCAP wants to tackle immediately are: sourcing, sweatshop and child labour, waste management, and the minimization of carbon footprint (table 4.1):

Table 4.2: The fashion and textile industry: Facts and Figures

ENVIRONMENTAL & SOCIAL ISSUES	DATA
Sourcing	90 % from abroad – 10% from the UK
Sweatshop & Child Labour	Numerous stories of sweatshop use in the UK and abroad
Waste / Unwanted clothes	1.5 tons of unwanted clothes are sent to the landfills per year
Carbon Footprint	3.1 million tonnes per year from production
Waste / litter	2.5 million tonnes per year, 30kg per capita

Source: Bateman, L. (2009), 'More than an accessory: the clothing industry takes action on sustainability, *www.greenwisebusiness.co.uk*, [25 February]

As far as academic definitions are concerned the term "sustainable fashion" is used when textile production and a product's life cycle are analysed (Thomas, 2008). In order to create fashion garments, one needs resources that are either provided naturally -cotton, silk and wool-, are man-made –viscose-, or are made from oil -polyester, acrylic, nylon- (Allwood et. al, 2006, Thomas, 2008). Therefore, production of raw materials, manufacturing of garments and textile treatment, are steps that add considerable burden to the environment, in addition to animal welfare and human health, when processes are not based upon sustainable guidelines (Kim and Damhorst, 1999). Conventional and unsustainable practices of the fashion industry can result in the following environmental challenges among many others:

     i.   The destruction of forests and natural habitats in order to create farmlands for conventional agriculture to meet current consumer demand (Campbell et al. 2010).

     ii.   Extensive use of fossil fuels to produce energy for water heating and laundering necessary for material and garment treatments (Allwood et al, 2006).

     iii.   Cultivation of cotton relies on heavy consumption of fresh water; for each kilogram of cotton fibre it is estimated that 2,700 litres of freshwater are needed (Fletcher, 2008: p.7; Allwood et al, 2006; Kim and Damhorst, 1999).

iv.   The use of toxic chemicals and fertilizers is energy intensive but also extremely harmful to the environment, animals and humans (WBCSD, 2008).

v.   The industry uses chemicals for dyeing, printing and garment treatments (Allwood et al, 2006). According to the World Health Organization, it has been estimated that every year 3 million people are being poisoned and about 20,000 die from the use of pesticides from the fashion industry alone (Siegle, 2008).

vi.   Waste creation: it has been estimated that on average one person in the UK sends 30 kg of unwanted garments to landfills each year, creating over 250,000 tons of combined clothing per year (Allwood et al, 2006; Birtwistle and Moore, 2007).

In the sector of sustainable fashion we classify products that have been designed, produced and distributed by organic or sustainable methods (Klonsky et al., 1998). However, organic and sustainable methods according to the non-profit organization Sustainable Technology Education Project (STEP) are quite broad terms. STEP classifies as sustainable fashion anything that relates to clothing or garments which "take into consideration the environment, the health of consumers and the working conditions of people in the fashion industry". According to this organization's definition, fashion products which are produced and distributed using ethical ways, respect the planet and its resources, the work force involved it their production as well as the end user, are identified as sustainable fashion. As part of "sustainable methods" design and production, the retail industry includes new products made from raw materials as well as the approximately 45% of fashion products that can have a second or third life cycle prior to their disposal (Luz, 2007). Since none of these categories require new fibres to be grown, their production impact on the environment is minimal and sustainable when quantified by their carbon footprint. Thus, they qualify and are part of the sustainable fashion sector as well. Such products are categorized as second-hand, vintage, and refurbished. Vintage or second-hand fashion products are garments that are of no use to their original owner and are resold to another person (Allwood et al, 2006). Refurbished fashion refers to garments whose primary materials are reused to produce another product, or to restructure a product (Luz, 2007). Refurbished items can be up-cycled, redeployed or down-cycled. Up-cycled or redeployed products consist of recycled materials but have been redesigned in order to re-enter the fashion cycle. Down-cycled products are garments that are turned into rags or stuffing

materials for mattresses or car seats (Thomas, 2008). Based on the points raised above, the present research views sustainable fashion as: the segment of the fashion industry where the practices of design, production, distribution, usage and disposal of a fashion garment have a benign impact on the environment. Such practices along with the values of global equity, fair trade, social justice and responsibility are interconnected and form a solid relationship.

The sustainable fashion niche market in the UK consists of private companies, which continue to define the sector by adopting innovative production methods and materials (Thomas, 2008). They have sustainability as part of their core strategy and are greatly influential in the overall development of the sector, affecting also the reporting practices of some mainstream fashion conglomerates such as Marks and Spencer (Mintel, 2009; EFC, 2009).

4.4.3 Gaining access for research

One of the most important tasks when designing the research study was to identify the companies within a specific industry setting, which are considered amongst the most representative ones for the needs of a specific research, as such companies will be the most appropriate to share their insights in regards to the research questions.The aim was for the researcher to quickly familiarize herself with the chosen industry sector and also to understand the necessary processes that an intrinsically sustainable company needs to fulfil. This learning process took place before the research commenced, where it was necessary to obtain an overall understanding of sustainability strategy development through its occurrence as a niche market of the fashion industry. The ideal way to gain access to such information is to become an "insider". This also adheres to phenomenological research guidelines. Following the guidelines of exploratory research (Creswell, 2003) the empirical body of this research was conducted by the researcher as part of a professional team in the real setting of the sustainable fashion segment in the UK. In order to be able to find out such "insider" information, the researcher worked pro bono at the Ethical Fashion Consultancy (EFC), the consultancy arm of the Ethical Fashion Forum (EFF), which is the industry body for sustainable fashion, representing more than 6,000 members in over 100 countries (EFF.com, 2013). Between the months of November 2010 and May 2012,

the researcher volunteered at the Ethical Fashion Consultancy (EFC), the consultancy arm of the Ethical Fashion Forum (EFF). The researcher obtained the pro bono role of research and sales manager for EFC and was also one of the editors of *Source Intelligence,* an on line monthly publication produced by the EFF. The purpose of this publication is to communicate the most important business intelligence as far as the global sustainable fashion industry is concerned. The publication's content is structured in four sections: business focus, market and sales watch, supply focus and expert analysis.

In the capacity of being a research and sales pro-bono manager as well as editor, the researcher worked alongside of the most influential sustainable fashion companies and professionals. She received constant updates of the sector which enhanced the value and the relevance of the data collected. She was able to meet personally many professionals of the sustainable fashion sector. These acquaintances facilitated the researcher to collect secondary data, and to prepare for primary data collection.

4.5   Data Collection

The present research's data collection was rigorous and over the period of four years: 2009-2013. Initially, the researcher collected data from secondary resources: marketing materials, press releases and relevant print and online articles about companies involved in the sustainable fashion sector, as well as observation notes during the time she worked at the Ethical Fashion Forum and Consultancy. Later on, she collected data through primary resources: pilot exploratory unstructured interviews, semi-structured interviews and observation. These data collection phases are outlined in Figure 4.0:

Figure 4.0 - The data collection phases

Phase 1: Collecting secondary data
i.   Data collection from secondary resources (articles, books, marketing collateral) ii. Data collection from visits to sustainability focused fashion trade shows
Phase 2: Organizing the collection of primary data
i.   Selecting subjects for initial exploratory interviews

ii.	Initial exploratory unstructured interviews
iii.	Results from initial exploratory interviews, coding
iv.	Interpretation of data from initial exploratory interviews
v.	Reformulate research question along tighter specifications
vi.	Formulate interview guide to reflect the tighter specifications of the research question
vii.	Selection of companies to participate in main study

Phase 3: Collecting primary data

i.	Conducting semi-structured interviews
ii.	Observation of participant companies
iii.	Studying secondary resources relative to participant companies

The analysis of the initial phase of secondary data collection and the main data collection phase are described below.

4.5.1   Phase 1 – Collecting secondary data

The initial phases of data collection consist of secondary data collection through reviewing the literature in order to form a general definition of research question and objectives. During these phases, data collection took place from secondary resources (articles, books, marketing collateral) and by visiting sustainable fashion trade shows.

(i)   Data collection from secondary resources (articles, books, marketing collateral)

When the researcher started collected data, she studied a plethora of print media relevant to the topic of signalling sustainability in the environment of private companies. Table 4.3 outlines the list of the secondary data vehicles that were used following collection guidelines as suggested by Creswell (2003):

Table 4.3: List of secondary data collection methods adapted from Creswell, 2003

QUALITATIVE DATA COLLECTION APPROACH	TYPES OF DATA
Journal keeping during the research study	Journal notes during the research study
Unstructured and informal discussions with owners of private sustainable fashion companies during trade shows	Observation notes and informal discussion notes
Study of companies' collateral	Notes
Observation of brick and mortar retail locations and company displays at major fashion tradeshows	Notes
Study of company websites	Notes

Examination of participants biographies as part of a discussion and by information on the internet	Notes
Photographs of companies retail locations, tradeshow set up, participants, product	Notes

The researcher studied academic articles and books on the topics of sustainability and signalling, and she also studied articles in media publications such as the *Source Intelligence*, *Guardian Sustainable Business*, and *Sustainable Brands Media.* As she started being more familiar with the topic of sustainability in the fashion industry, she started discovering companies that are involved in the sector. She continued with gathering secondary data by studying websites of sustainable fashion companies, and discovering relevant press articles and posts on social media about such types of companies. Such secondary data were organised in order for the researcher to review where and how private sustainable fashion companies signal sustainability. By gathering secondary data, the researcher was able to identify an initial pool of thirty sustainable fashion companies as candidates for the main study. Once an initial pool of companies was selected, the researcher reviewed their virtual and actual retail spaces and their websites. She studied company reports and where applicable read the company owners' biographies. Last but not least she studied the labels, business cards, and look books that these companies use for retailing and press purposes. Notes and pictures from companies' trade show displays and their shops were gathered as well. Notes gathered throughout this phase of secondary data collection were used to form assumptions of which companies should eventually participate in the primary data collection phase after being juxtaposed with findings from initial exploratory interviews with experts in the sector of sustainable fashion in the UK.

(ii)   Data collection from visits to sustainability focused fashion trade shows

In parallel with gathering secondary data and during the period of her pro bono work at the EFC, the researcher also visited London Fashion Week / Estethica, Pure, and Ecoluxe. These tradeshows are supported by the British Fashion Council and take place twice a year to showcase the fashions of Autumn/Winter and Spring/Summer. Take place in London, UK such tradeshows are considered amongst the most prominent in the Fashion Industry. They attract participants and visitors from all over the World, because London is considered to be amongst the most influential fashion

capitals along-side with New York, Paris and Milan. For completeness, table 4.4 depicts the tradeshows attended by the researcher during this study:

Table 4.4: Attendance in Sustainable Fashion Trade Shows

TRADE SHOW	February 2011	September 2011	February 2012
London Fashion Week -Estethica	x	x	x
Ecoluxe	x	x	x
Pure	x		

As a visitor to these highly influential tradeshows, the researcher was able to gather additional data of the thirty (30) most prominent companies in the sustainable fashion sector in the UK in order to commence primary data collection, and group them in an initial pool of companies which best reflect the sustainable fashion sector in terms of sustainability signalling.

4.5.2   Phase 2: Organising the collection of primary data

As also shown above in figure 4.0, the organization for the collection of primary data consisted of several steps:

i.   Selecting subjects for initial exploratory interviews

The initial familiarization with the sector from the study of data from secondary resources and visits to trade shows related to sustainability and fashion was supported by conducting seven (7) unstructured face to face in depth expert interviews (Saunders et al., 2009). Primarily, subjects for initial exploratory unstructured interviews were identified. The interviewees were selected amongst a pool of sustainability fashion experts, following guidance by the EFF and the EFC. The people participating in the in the exploratory unstructured interviews were purposefully selected based on their involvement with sustainability as applied to fashion since its inception – i.e. the early 1990s (Siegle, 2008).   As a result, these participants were the most appropriate individuals to help the researcher understand the research problem in its entity as qualitative research suggests (Creswell, 2003). At the time when the research was conducted until presently, the participants of the initial exploratory unstructured

interviews are employed as consultants to private sustainable fashion companies which are intrinsically involved with sustainability strategy. Most of them, also offer consultancy services to large firms which are extrinsically involved with sustainability strategy.

ii. Initial exploratory unstructured interviews

All exploratory unstructured interviews took place at a time and place chosen by each interviewee. Four out of seven interviews took place at the interviewees' workplace, two over SKYPE video conferencing while the interviewees were at their home, and one at a quiet café next to the interviewee's work place (table 4.5):

Table 4.5: Initial exploratory unstructured interviews

TITLE OF INTERVIEWEE	DURATION OF INTERVIEW	PLACE OF INTERVIEW
1. Creative Head	60 minutes	Workplace
2. Head Designer / Consultant	45 minutes	Workplace
3. Sustainable Sourcing Consultant	48 minutes	Workplace
4. Sustainability Compliance consultant	1 hour 10 min	Skype
5. Sustainability Buyer consultant	55 minutes	Skype
6. Sustainability Marketing Consultant	2.5 hours	Cafe
7. Associate Director – Sustainability	47 minutes	Workplace

The researcher encouraged the interviewees to select the place of the unstructured interview in order to facilitate a natural setting, to ensure a relaxed and casual atmosphere, to build rapport with the interviewee, and to make certain that there was no intrusion to their working space beyond what was necessary.

iii. Results from initial exploratory interviews and coding

Once the results from initial exploratory interviews were recorded, the researcher used open coding in order to interpret the data. As all initial exploratory interviews were unstructured, the researcher did not use a predetermined list of questions. The researcher wanted the participants to discuss freely their views about sustainability and its relationship to signalling. The pilot interviews also offered further guidance in regards to which companies best represent the sector (Wee, 2001) of sustainable

fashion. Following these seven unstructured exploratory interviews, the researcher coded the initial responses openly in order to be able to group common themes in signalling sustainability and to reformulate theoretical explanations of the research question (Bryman and Bell, 2007, Creswell, 2003). It was primarily important to understand the industry and the way sustainability strategy processes are implemented in regards to:

- The reasons why industry professionals started becoming engaged with the concepts of sustainability in fashion.

- The process through which a high street conventional company follows when it aims to introduce sustainable garments in their product mix. Does the "high street" get inspiration by the activity of sustainable fashion private companies? Grasp some major challenges industry professionals face when sustainability strategy is adopted.

These were important queries for the researcher to understand at this stage of the research study.   In case large firms get inspiration from the niche market of sustainable fashion companies in regards to signalling sustainability, this could mean that the signalling structure of the overall signalling environment that private companies intrinsically engaged with sustainability operate within is also affected.

iv.   Interpretation of data from initial exploratory interviews

What the researcher discovered through the initial phase of secondary data collection, is that a particular feature of the niche market of sustainable fashion in the UK - that would make primary data collection challenging- is that the sector comprises of private companies and a high turnover of newcomers; many companies close down after two or three years of operations due to financial challenges (Mintel, 2009). Due to these particularities, the challenge that was met and overcame was to identify "success story" companies that newcomers would aspire to emulate. By understanding the common practices of the overall fashion industry in regards to sustainability strategy, the researcher was able to focus on gathering more relevant and in a more focused manner secondary data to the study of private companies comprising the sustainable fashion sector.

v.   Reformulate research question along tighter specifications

The outcome of the study of secondary resources and the initial exploratory unstructured interviews, allowed the researcher to tighten up the research specifications, and to form the setup of a list of signalling sustainability criteria in order to be able to make the final selection of the companies that would participate in the main study (table 4.6), and to create an interview guide to use in the main data collection phase. Data collection continued with the main data collection phase (figure 4.0, presented previously), which consisted of the collection of primary data through elite and informal interviews with private companies representatives of the sustainable fashion sector in Britain.

vi.   Formulate interview guide to reflect the tighter specifications of the research question

After the completion of the pilot interviews, the researcher analysed the data and created a list of questions –interview guide- in order to be used later during the second stage of data collection (Saunders et al., 2009; Bryman and Bell, 2007).

vii.   Selection of companies to participate in main study

The selection of the representative companies of the sector to participate in the main study was also identified by developing a set of selection criteria. The selection criteria were used in order to identify the most suitable companies to participate in the main study. Once, the most suitable companies were identified, the primary data collection begun. Primary data were gathered through semi-structured interviews, observation, secondary resources. These phases which took place during the main data collection period are described analytically below.

4.5.3   Collecting primary data

The primary data collection took place elite and informal interviews with private companies representatives of the sustainable fashion sector in Britain. The researcher followed the guidelines as suggested by Wee (2001) and presented in table 4.6 below:

Table 4.6 Main Research: Primary Data Collection Steps

MAIN STUDY	QUALITATIVE
Data collection method	Semi- structured and informal interviews following a discussion guide
Data collection technique	Recording and note taking
Data analysis	Transcripts of interviews, study of researcher's notes during interviews
Data report	Coding of data and analysis
Follow up	Participants' de-briefing if requested

As was described above, during phases 1 and 2 of data collection and their outcome (sections: 4.5.1 and 4.5.2 respectively), the researcher was able to initially identify thirty sustainable fashion companies and group them in an initial pool of companies which best reflect the sustainable fashion sector in terms of sustainability signalling. The outcome of data collection during phases 1 and 2 however, allowed the setup of a list of signalling sustainability criteria in order to be able to make the final selection of the companies that would participate in the main study. The researcher created a list of signalling sustainability criteria (table 4.7) in order: "to purposefully select participants (or documents or visual material) that will best help the researcher understand the problem and the research question" Creswell (2003, p. 185).

The opportunity to work at the Ethical Fashion Consultancy and the Ethical Fashion Forum was critical to enable the researcher to select which companies should participate in the main study as the most influential. In order to ensure the companies participating in the main study are the most representative of the sector of sustainable fashion, the research compiled a list of selection criteria which prospect participant companies were reviewed against. The criteria that a company that would be considered amongst the most influential in the sector of sustainable fashion in the UK are presented in table 4.7. A company needed to comply with almost all of the selection criteria in order to be suitable to participate in the main body of this research.

Table 4.7: Signalling sustainability selection criteria

SIGNALLING SUSTAINABILITY CRITERIA	SIGNALLING SUSTAINABILITY INDICATORS
Transparency in operations	High transparency
Certification by an established certification body	Certified
Longevity in the business	Two years or more
Recommended by experts in pilot study	Highly recommended
Participation in a major sustainable fashion tradeshow	Participant
Winner or finalist of sustainability award	Winner or finalist
Sustainable Product offered	- Excellent product design - Product innovation - High commerciality
Signalling sustainability through collaborations	Collaborations with other retailers in sustainability strategy development
Signalling sustainability through educational initiatives	Publications, papers, workshops, educational workshops
Retail activity	- Network of retail locations (Britain and/or abroad) - Concession in mainstream retailer outlets - Internet sales - Retail brick and mortar locations - Wholesale and retail operations

The selection criteria were juxtaposed against published information in regards to: the appearance of selected companies in lists of the most influential sustainable fashion companies by the EFF, the participation of companies at the *Guardian Sustainable Business Award*[1]([guardian.co.uk](), 2013), the participation of companies at the *SOURCE Award*[2](source.ethicalfashionforum.com/ 2013), the participation for more

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[1]*Guardian Sustainable Business* is part of Guardian Professional and a division of Guardian News and Media. Through a series of products and services aimed towards sustainability strategy, this body provides information, as well as best practice guidance for companies of all industries. Part of this service mix are the *Guardian Sustainable Business Awards* which promote sustainability initiatives and best practices and award companies that are intrinsically and extrinsically involved with sustainability strategy initiatives (guardian.co.uk, 2103).

[2]Initially introduced in 2011 by the Ethical Fashion Forum, the *SOURCE Awards* is an annual competition which recognizes excellence in fashion and sustainability across twelve different categories ranging from sustainability innovation and brand leaders to contributors, writers and multinational retailers which are adapting their practices to incorporate sustainability towards accomplishing environmental and social positive influence (EFF.com, 2013). Many of the companies that are currently considered amongst the aspiring and successful companies in the sustainable fashion sector in the UK

than once at London Fashion Week's *Estethica*[3] trade show, and the size and type of a company's retail operations.

In regards to the retail activities of a company, the researcher looked at: the company's presence as a concession shop in mainstream retailers, a presence of a national and international sales network, its product availability through a wholesale and retail operations, and its distribution of products via a brick and mortar retail location and/or on the internet. Last but not least a selection criterion used was whether a company instigates signals regarding collaborations with other retailers in order to introduce new approaches in sustainability strategy.

Therefore, from the initial pool of thirty (30) companies that were reviewed at the first phase of the research, the selection of participating companies to this research was narrowed down to twenty four (24) companies, which met the set selection criteria. The participant private companies included in the main body of the field research are presented in table 4.8. The companies are classified as cluster A: certified companies and cluster B: non-certified companies depending on whether they meet all of the set sustainability selection criteria (as presented in table 4.7). The companies under the classification of cluster A: certified companies meet all the criteria, including official certifications from official certification bodies for sustainability in production and compliance to ethical standards. Examples of such certification bodies are: the WFTO, the Fairtrade Foundation, GOTs, SACL, OECOTEX, and ISO 18001.

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and which have participated in this research, have been awarded an innovation award or are in the finalists.

[3]In February 2009, during London Fashion Week, the Sustainable Clothing Action Plan was launched (SCAP). The SCAP is the way that the British Fashion Council responded to the impeding pressure to tackle the problem of fast consumption fashion also known as 'throwaway fashion'. By introducing the SCAP together with the launch of the ethical fashion label the 'Noir Collection', the British Fashion Council established a five day show, called Esthetica, in the regular program of the London Fashion Week. Esthetica's platform is to feature a plethora of ethical fashion labels as a way of introducing sustainable fashion to the mainstream audience and to encourage them to showcase their products in a well known fashion event such as the London Fashion Week, facilitating exposure and external communication opportunities (Bateman, 2009).

Table 4.8: Cluster A: Certified Companies

Cluster A: Certified Companies	Fashion area	Sustainability angle	Transparency	Official Certifications	No of years in business	Trade show	Awards
Co 1 Interview with COO	Women's wear	Organic , ethically produced, local community production, recycled, up-cycled	Yes	Fairtrade Foundation Certified Cotton	4	Yes	Yes
Co 2 Interview with: Marketing Manager	Men, women and children's fashion and accessories	Organic , ethically produced, local community production, recycled, up-cycled	Yes	Fair Trade Certified by WFTO, Organic Cotton certified by the Fairtrade Foundation, Conrol Union and the Soil Association	12	Yes	Yes
Co3: Interview s with: COO, Marketing Director	Fashion accessories	Fair trade, ethically produced, organic, sustainable and local to region	Yes	Fair Trade Certified by WFTO	20	Yes	Yes
Co4: Interviews with COO and Marketing Manager	Men and women's wear	Organic and sustainable materials , ethical trading, recycled, up-cycled, local community production, chemical free, vegan	Yes	Organic Materials certified by GOTs, SACL, OECOTEX, ISO 18001, CO2 impact measured by Ecolife	2	Yes	Yes
Co5: Interviews with COO and Head Designer	Men's, women's wear and bridal accessories	Ethically produced, local community production, alternative materials	Yes	GTOC (Global Textile Organic Certified), Low CO2 certified	10	Yes	Yes
Co 6: Interviewswith COO and Marketing Manager	Men's, women's and children's undergarment	organic materials and ethical trading, community production	Yes	Fairtrade Foundation, Soil Association, WFTO	10	Yes	Yes
Co7: Interviewswith COO and Marketing Manager	Women's wear	organic/sustainable materials, up-cycled, community production	Yes	Centre for Sustainable Fashion	3	Yes	Yes

The companies categorized as cluster B: non-certified companies meet most of the set selection criteria, but have no certifications from official sustainability and ethics certification bodies. *Cluster B* companies therefore, do no present an officially accepted, by an NGO or a governmental institution, form of certifiable sustainability practice. (For further information in regards to what do certifications imply please go to appendices).

Table 4.9: Cluster B: Non- Certified Companies

Cluster B:Non-Certified Companies	Fashion area	Sustainability angle	Transparency	No of years in business	Trade show	Awards
Co8: Interview with COO	Women's wear	Ethically produced, organic and natural fibres	Yes	5	Yes	Yes
Co 9: Interview with COO	Women's wear	Ethically produced, local community production, organic, recycled, up-cycled, alternative sustainable materials	Yes	4	Yes	Yes
Co10: Interviews with COO, Head Designer, Head of Marketing	Men and women's wear	Ethically produced, local community production, organic, recycled, up-cycled	Yes	16	Yes	Yes
Co 11: Interview with COO	Men and women's wear	Ethically produced, local community production, organic materials, up-cycled	Yes	15	Yes	Yes
Co12: Interview with COO	women's wear	Local community production, recycled, up-cycled	Yes	7	Yes	Yes
Co 13: Interview with Marketing Manager	Women's wear	organic/sustainable materials community production	Yes	6	Yes	Yes
Co 14:Interview with Head Designer	Jewellery	Ethically produced, local community production, recycled, up-cycled	Yes	6	Yes	Yes
Co 15: Interview with Designer	Lingerie	up-cycling, local community production, sustainable & organic materials, no use of metal or plastic components	Yes	4	Yes	Yes
Co16: Interview with Marketing Manager	Men and women's wear	Ethically produced, organic, recycled, up-cycled, alternative sustainable materials	Yes	2	Yes	No
Co 17: Interview with Head Designer	Jewellery	Recycled materials, up-cycling	Yes	2	Yes	No
Co 18: Interview with Head Designer	Accessories and home wear	Ethically produced, organic materials	Yes	2	Yes	No
Co 19: Interview with Head Designer	Accessories and home wear	Ethically produced, local community project	Yes	5	Yes	No
Co 20: Interview with Head Designer	Women's wear	Organic and alternative sustainable materials	Yes	3	Yes	No
Co 21: Interview with Head Designer	Women's wear	Organic and alternative sustainable materials	Yes	2	Yes	No
Co22: Interview with Head Designer	Accessories and Jewellery	Recycled materials, up-cycling	Yes	3	Yes	No
Co 23: Interview with COO	Jewellery	Recycled materials, up-cycling,	Yes	2	Yes	No

		local community production				
Co 24: Interview with COO, CFO, Marketing Manager	Work wear / uniforms	up-cycling / closed loop systems	Yes	11	No	Yes

(i)   Conducting semi-structured interviews

Though semi-structured in depth interviews the researcher was able to deepen her understanding of signaling sustainability and how it becomes more effective (Jraisat et al, 2013; Saunders et al., 2009). This type of interview refers to: "a context in which the interviewer has a series of questions that are in the general form of an interview schedule but is able to vary the sequence of questions", (Bryman and Bell, 2007:213).

Twenty four (24) private sustainable fashion companies met the selection criteria and participated in the data collection via semi-structured interviews. These companies were of limited liability and are owned by one person or two partners. Eighteen (18) did not have permanent employees on their payroll other than the owner(s), and six (6) employed up to three extra employees on a free lance or a seasonal basis. The researcher conducted semi-structured interviews with every person who was an owner or a partner of the pool of selected companies. Where applicable, she also interviewed free-lance employees; the selection for those was directed by the number of years they had been working for the particular company and whether the owner(s) of the company thought they could provide relevant input to the study. Therefore, from the twenty four companies (24) which participated in the main research, thirty three (33) semi structured interviews were conducted.

Prior to any gathering the interviewing processes, an interview protocol was used. The interview protocol is a form to record observational data and descriptive notes which includes: demographic information, descriptions of the physical setting, particular events that took place during the data gathering process, and also personal reflective notes (Creswell, 2003). They also aid the researcher to write probes for key questions.

The researcher used a discussion guide (Appendix 1). The guide allowed consistency and uniformity across the interview process and with managing the data later (Guion et al., 2011). It also allowed the researcher to control the discussion to a certain point in

order to retrieve historical information relevant to the topics examined (Creswell, 2003). Questions included in the discussion guide aimed to keep the discussion within the specific context of the research questions (Saunders et al., 2009). As seen in previous chapters of this thesis as well, this research study focuses on three specific research questions in order to determine the quality of sustainability signals sent by private companies intrinsically engaged with sustainability. The first research question: a) "Why private companies, intrinsically involved with sustainability signal?" needed feedback from companies in regards to why they define and interpret sustainability in the way they do, what is the role that sustainability plays for them, what determines whether they communicate sustainability, what do they aim to achieve by signalling sustainability and whether signalling sustainability affects their companies' performance on a multi dimensional level (environmental, social and economic). Such questions are included in the interview guide. The second research question: (b) "What do companies signal about sustainability?" was prompted to be answered by asking respondents what their companies do to signal sustainability, who do they have in mind when they send these sustainability signals. The third research question: (c) "the ways they signal sustainability" focuses on the signals that companies are using to communicate their engagement with sustainability.

By obtaining data in regards to these research questions, the aim of this study was to reveal what constitutes effective signalling for private companies. It also aims to determine any new knowledge obtained from sustainability signalling by specific companies operating within a set signalling environment. Questions from the discussion guide in relation to obtaining such insights related to asking respondents about their stakeholders and the level of their knowledge of sustainability, or querying about any insights companies can share about their signalling environment; which types of signals they consider effective; whether they are any restrictions or limitations in sustainability signals. These prompt participants to share relevant knowledge in this topic. Such questions were included in the discussion guide (Appendix 1). Table 4.10 below illustrates the question categories for the semi-structured interviews and their relationship with the primary focus of this research study:

Table 4.10: Question categories for semi-structured interviews

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- o   How do you define sustainability?
- o   What is the role that sustainability plays for your company?
- o   Does your company communicate sustainability? How?
- o   What determines whether and to what extent you communicate sustainability?
- o   What are the signals you are using to communicate sustainability?
- o   What are you aiming to achieve with these signals?
- o   Which are the stakeholders for your company? How do you communicate
- o   sustainability to different stakeholders?
- o   Are your stakeholders interested/ knowledgeable in sustainability? Do the signals you sent to them to address their expectations?
- o   Are there any things that you have learnt during this exchange of information?
- o   Do you think there is a difference in the sustainability signals in your industry?
- o   In terms of quantity, do some firms signal sustainability more than others in your industry?
- o   How about differences in the quality of signalling?
- o   What makes sustainability signals more effective?
- o   Examples of effective sustainability signals from your industry? Why are they effective/? Examples?
- o   Are there any sustainability signals of your company or in your industry that you think are not that effective? Why do you think this is the case?
- o   Does signaling your sustainability have any outcomes? Does it affect your company's performance?
- o   Do any of your competitors communicate their sustainability? What are the signals that they are using?
- o   Are there any restrictions and limitations a company might face when signalling sustainability? Does your company face any restrictions or limitations in its efforts to signal sustainability? How about your competitors? Is there anything else that companies in your industry could be doing differently when signalling sustainability?

The nature of the semi-structured interviews allowed the interviewer to deeply explore the participants' views and feelings on the specific topic of signalling sustainability in the context of the signalling environment of private companies belonging to the sustainable fashion sector (Guion et al., 2011; Wee, 2001). Rich information is the outcome, which not only can motivate further questions relevant to the topic, but also reveals new avenues for future research (Guion et al., 2011). Respondents were encouraged to select the location of the interviews, which for most was at their office premises. One person selected their home and another one a quiet café near their place of work. As with the pilot study, the locations chosen were convenient for the

interviewees in order for them to be comfortable and undisturbed from their work engagements. This ensures credibility in the data obtained (Saunders et al., 2009).

Qualitative research is primarily conversational, hence it was important to set specific boundaries between what a researcher shares with participants (Guion et al., 2011). The researcher introduced herself and the purpose of the study, and explained to participants the fact that what they share during the interview is for the use of the specific study and for nothing else, in order to put them at ease. She also mentioned that their names, the names of their companies and other sensitive company information, such as financial data would not be disclosed. She also encouraged them to be sincere with their answers. This allowed participants to offer their consent to participate in the interview, and thus the process and data manipulation adhered to the ethical considerations, guidelines and confidentiality as recommended by Cardiff University and the academic community in general. In addition, it ensured that the content obtained from the interviews was impartial to the researcher's knowledge of the topic (Guion et al., 2011).

During the interviews the researcher listened to and observed what the respondents were saying and often, as a safeguarding measure, repeated some of their answers back to them requesting further clarifications. The interview guide was used as a means to cover all the issues that were determined necessary to this research.

ii. Observation of participant companies

During the data collection period the researcher visited participant companies' exhibition spaces at the trade shows: Estethica, Pure and Ecoluxe, companies' headquarters and companies' shops when applicable. Observation was informal; the researcher examined the exhibition spaces of participant companies during these tradeshows, collected marketing materials, press releases and other collateral. The researcher also visited the shops of those participant companies which have a retail space to sell their products. When visiting shops the visits were also informal and the researcher acted as a customer as well as a researcher. She was allowed to take notes and observe employees while they worked. During observation, the role of the researcher was *observer as participant* of the sustainable fashion sector: her role was

known from the beginning, which aided in recording information as it occurred (Creswell, 2003; Bryman and Bell, 2007). The researcher's work at the EFF/EFC allowed her to participate in meetings, trade shows and to mingle with sustainable fashion professionals in many occasions through the time frame she was part of the EFF/EFC team. Being an observer as participant allowed her to be able to observe and keep field notes on numerous occasions. The researcher took notes of the behaviour and activities of individuals in the setting of their workplace, in the setting of a trade show, and as how they are represented online as part of the segment of sustainable fashion. Contextual data after each interview were also recorded in order to document the situation, the setting of each interview and the researcher's instantaneous thoughts after the event, as Saunders et al. suggest (2009).

iii.   Studying secondary resources relative to participant companies

The researcher gathered industry reports and press clippings relative to participant companies and their owners. In this why she was able to cross check information gathered from informal discussions and semi structured interviews with relevant published materials in the field. Her personal involvement with the sector as part of the EFF and the EFC consulting team for one and a half years, allowed her to keep in touch with these companies in order to get frequent updates and news from them whenever new developments in their companies occurred.

4.6   Obtaining consent from participants

Following the guidelines provided by Ulin et al. (2004) and also according to Cardiff University's Ethics Committee's guidelines, prior to commencing any interview the researcher informed the participant of the following:

- The purpose of the research
- What is expected of a research participant
- The amount of time that the interview will likely require
- Informed them that at the end of the PhD study the researcher will be sharing all results with participants

- Assure them that all data relevant to the company details, personal data, sensitive company information, and financial data –if provided- would not appear at any point during the presentation of the results and the analysis

- Provided them with the researcher's supervisors' information if they needed to contact them

- Explained that their participation to the study is voluntary

- Stressed the fact that they can withdraw any time during the interview, and that they do not have to answer questions that they feel uncomfortable answering, with no repercussions

Besides being informed verbally, all respondents were also provided with a consent form describing all of the above. This form served as their reference to what was communicated verbally prior to the interview process. They had the option to either sign the form and return it to the researcher, or keep it and provide their consent verbally. All respondents kept the consent form and agreed to participate verbally. This adheres with the ethics guidelines for the purposes of this research because participation in the research had minimal risk. As Ulin et al. (2004) suggest, if research has minimal risk oral consent is usually adequate.

4.7   Recording the data

During the course of data collection the twenty four (24) companies presented in tables 4.8 and 4.9 were purposefully selected and reviewed. In this research the approach towards gathering and recording data aimed to intensively study a purposefully selected number of companies. This was because:

a. The chosen sector of sustainable fashion presents the challenge that it primarily consists of private companies which usually employ one to two people. Therefore it was necessary to choose more companies in order to obtain sufficient information and to present valid results.

b. By purposefully selecting the companies that would best represent their sector in the specific signalling environment of private companies intrinsically engaged with sustainability, the researcher avoided then the results from been biased which could compromise the trustworthiness of the data (Creswell, 2003).

Most interviews were audio recorded in order to record reliable data for analysis. By audio-recording an interview one is "able to concentrate more fully and listen attentively to what is being said and the expressions and other non-verbal cues one's interviewee is giving when they are responding"(Saunders et. al., 2009, p. 339). All of the recorded interviews were transcribed by the researcher who chose not to use a transcriptionist, because she wanted to recapture comments, feelings and additional reflective impressions in case she had not noted them down during her initial observations of each company's retail location, headquarters and/or trade show space or during the interview process. This step also ensured validity in recording and later analyzing the data.

About 30% of the interviewees requested that the researcher kept notes instead of audio recording their interviews. Therefore thorough notes were kept during these interviews, which were supplemented with contextual notes and comments. This way some of the disadvantages that possibly audio-recording interviews entail, such as not allowing sincerity in responses, and having the interviewee focus on the audio-recorder too much were avoided (Saunders et al., 2009), while the researcher also complied with the wishes of those interviewees.

4. 8   Coding

Data coding enabled all the data that were collected to be grouped into themes to facilitate analysis (Creswell, 2003). The process followed the coding guidelines described by Gläser and Strauss (2009): these are *open coding*, *axial coding* and *selective coding*. This coding process is the presented in figure 4.1:

Figure 4.1: The Coding Process

Secondary Data
- Literature Review
- Secondary Resources

Data from exploratory unstructured interviews

Data from semi-structured interviews

Researcher's own familiarity with the topic as part of a consulting team

Interview guide

Initial Data Analysis

Topics raised by primary data collection

Open Coding

Topics raised by interview guide

Axial Coding

First Order Concepts

Selective Coding

Second Order Themes

Findings from the literature review and data

Aggregate Dimensions

FINAL INTERPRETATION

4.8.1 Open Coding

Initially data were classified into similar topics, followed by their further classification into categories with similar concepts (open coding). These conceptual categories were labeled according to their meaning provided by the interviewees and the theory, even if the reference to the theory might not be explicit at this point. Code names emerged from terms used by interviewees and terms that were revealed by the data or terminology used by the literature (Gläser and Strauss, 2009; Saunders et al. 2009). Codes were divided into: contextual codes, perspectives and thoughts offered by the interviewees, processes, strategy related activities, relationships and pre-assigned

codes by researcher (Creswell, 2009). For example, the researcher used codes such as "initial signals", "definition of sustainability", "importance of sustainability" and "sustainability signals" among others and allocated parts of the transcribed text in order to explore the topics under study (see Jraisat et al., 2013 for an analogous method). By examining the qualitative data in regards with the literature, the researcher linked the first order codes, or else first order concepts, and arranged them to a more coherent manner. Sub-categories were then formed and confirmed against the actual data (Saunders etal, 2009).

4.8.2   Axial Coding

The next coding step, otherwise called axial coding, allowed for selecting the most important categories that affected the focus of the research. This step developed the relationships between the main first order concepts and groups them into second order themes. Axial coding helped build up an explanatory theory of the phenomenon under study (Saunders et. al., 2009). For example the first order concepts such as "recycling and up-cycling", "eco materials", "low CO_2 emissions", "fair wages", "no use of fur", through axial coding become a second order theme which is "Sustainability signals via an existing manufacturing process which is sustainable". In a similar manner, more first order concepts such as: "sustainable manufacturing"; "preservation of artisan skills"; "ethical labour"; and "against animal abuse" are part of the same second order theme: "Sustainability signals via an existing manufacturing process which is sustainable". Axial coding allowed the researcher to proceed with selective coding

4.8.3   Selective Coding

Proceeding on with selective coding is to assemble second order themes into aggregate dimensions. This is a necessary step which will help draw conclusions in order to understand what are the drivers behind these second order themes and hence their effectiveness as signals. For example one first order concept defining sustainable practices involves presenting a "clear production process", and is grouped with similar first order themes such as, "innovation in process", "closed loop solutions in production", which all then are grouped as a second order theme of "Sustainability signals via a new sustainable product manufacturing process". First order concepts

such as: "production processes", "waste management process" and "telling the story behind a product through transparency", become the second order theme of "sustainability signals manufacturing process which is sustainable". Combining these two second order themes we arrive at the aggregate dimension of "Signals of sustainable manufacturing processes – new or existing". Therefore, the processes of sustainable manufacturing are analysed as signals in order to develop theory. They are examined as signals in the prism of being part of company strategy, and as far as how effective they are as signals. This process is continues until we reach aggregate dimensions for all second order themes, which will allow us to develop the theory of signalling sustainability in the signalling environment of private companies intrinsically engaged with sustainability.

4.9   Data Analysis

The data analysis followed the guidelines of Jraisat et al. (2013), Schmitt and Renken (2012) and Andriopoulos and Lewis (2009). The data were analysed in order to expand the theory of signalling sustainability according to the aims and objectives of the present research as follows:

- To understand the origins and reasons thatunderpin differences in signalling sustainability.
- To find common ways through which sustainability is signalled.
- To expose and explore existing differences in signalling sustainability.

The data analysis took place along three principal axes of investigation:

(i) Examination of the antecedents of signalling sustainability as these emerge from analysis of the literature; juxtaposition of these antecedents with the broad primary research themes emerging from the raw data; setting of the research focus on why and how companies signal.

(ii) Organisation of the data according to the relevant question categories that have been identified from the literature review.

(iii) Coding conceptually the raw data into first order concepts, and linking first order concepts to second order themes. This enabled the researcher to conduct comparisons between the responses of different interviewees belonging to the same company, as well as between responses from different companies belonging to different clusters. Finally, forming aggregate dimensions as a basis for the development of the theory of signalling sustainability (Andriopoulos and Lewis, 2009).

Data were analyzed with the method of content analysis that, "seeks to analyze data within one specific context in view of the meanings someone –a group or a culture- attributes to them" (Krippendorff, 1989, p. 403). For the purposes of this research, the specific context or setcomprises of the environment where private companies - intrinsically involved with sustainability operate. The group consists of these companies who, whether they realize it or not, affect the way signalling sustainability strategy is developed for their sector. The way the group uses sustainability signals - communications, messages, symbols - is the avenue through which they inform others about sustainability as an integral part of their companies' ethos. Through content analysis the researcher sought to analyze the context of the data and identify what signals are communicated indirectly (Krippendorff, 1989).

A thorough examination was carried out in relation to what signals companies send regarding their sustainability, by looking at data obtained via in-depth interviews, observation, and examination of secondary resources. We account for the fact that signals in regards to sustainability took place at a specific time (between 2009 to date), and within a specific environment –sustainable fashion sector. Data were analysed to understand why and how signalling sustainability is outlined and thus enabling the researcher to develop the theory further.

When restructuring the raw data, the researcher applied conceptual codes and allowed for a certain amount of flexibility, in order to identify possibly new interesting ideas emerging from the interviews and incorporate them into the themes (Andriopoulos and Lewis, 2009).   Raw data obtained through the semi-structured interviews were then compared systematically in a four stage process, in order to: identify 1st order concepts (Stage I), link 1st order concepts to 2nd order themes (Stage II), conduct comparisons between the responses of different interviewees within the same company

and most importantly compare responses arising from different companies (Stage III), in order to eventually form a comprehensive conclusions as far as the research focus questions are concerned, also called aggregate dimensions (Stage IV). The analysis of each individual step follows next.

4.9.1   The Four Stages of Data Analysis

Stage I. The first stage of the data analysis was to identify initial broad categories within the raw data; the researcher examined material resulting from the 33 in-depth interviews with owners and managers of the 24 companies belonging to the sustainable fashion sector. To briefly remind the reader, the participating companies are classified into two clusters, according to the signalling sustainability selection criteria namely: cluster A: certified companies, and cluster B: non-certified companies.

All interview transcripts were examined within the context of the above mentioned research questions, in order to identify similarities and differences between the reasons why companies signal, what do companies signal about sustainability and the ways they signal it. To categorize the raw data the researcher applied conceptual codes by using in vivo codes, such as words and terms as offered by the participants, but also simple phrases describing an idea when in vivo codes were not available (Andriopoulos and Lewis, 2009; Strauss and Corbin, 1990). The first order concepts offered broad insights into why they signal sustainability, what they do in order to signal it and the ways they signal sustainability. During this phase, the assumptions that were adopted as a result of the detailed literature review presented in Chapters 2 and 3 were also empirically examined. From the examination of the collected raw data, quite broad primary research themes were identified and developed. These are: (i) the drivers for signalling sustainability; (ii) signalling sustainability processes; (iii) transparency in business operations as a signal; (iv) sustainability as a corporate value and as a signal; (v) sustainability signalling as part of corporate strategy; (vi) Sustainability as part of marketing mix trade principles. These associations are summarised below in Table 4.11.

Table 4.11: Data Analysis- Formation of broad primary research themes based upon the literature review

RESEARCH OBJECTIVES	RESEARCH THEMES

Why companies signal?	(i) The drivers for signalling sustainability - Sustainability as a means to achieve CA - The definition of sustainability strategy - The relationship between sustainability and performance - The importance of sustainability signals in relation to offering legitimacy to sustainability claims - To narrow down information asymmetry - To establish a signalling framework
What do companies signal about sustainability? (In order to achieve signalling fit)	(ii) Signalling sustainability processes (iii) Transparency in business operations as a signal (iv) Sustainability as a corporate value and as a signal (v) Sustainability signalling as part of corporate strategy

They ways they signal sustainability	(vi) Sustainability as part of marketing mix trade principles:
	   - Signals through product
	   - Signals through price
	   - Signals through promotion
	   - Signals through people
	   - Signals through planet

Stage II. The second stage of the data analysis involved identifying groups of first order concepts of similar ideas, followed by clustering them into second order themes. This stage created a number of second order themes that were reviewed once more under the prism of "why, what and the ways" companies signal sustainability. In addition, the researcher compared findings from interviewees belonging to cluster A (certified) and cluster B (non-certified) and deduced relationships between the two sets of responses.

Stage III. In the third stage of the data analysis, second order themes were further grouped into aggregate dimensions. The main outcome of this stage was to present findings pertaining to the reasons and methods of signalling sustainability by different companies. Data organization in the manner described, enabled the development and construction of an outline that is in a position to expand the theory of signalling sustainability. Construction of this outline was undertaken in the fourth and last stage of the data analysis.

Stage IV. The aggregate dimensions were labelled according to familiar literature-based terminology and particularly according to their distinct contributions as drivers of signalling sustainability. Of relevance to the present study are the distinct categories of (a) process as a driver, (b) personal ethos as a driver, (c) corporate ethos as a driver and (d) CSR directives as drivers, of signalling sustainability.

4.10   Data structure – Why companies signal sustainability?

The findings of our data structure concentrate on the reasons as to why companies signal sustainability. The findings reflect responses from the two company clusters: cluster A: certified and cluster B: non-certified companies. Table 4.12 presents data structures as these emerged from the data identifying the reasons why companies signal sustainability.

Table 4.12   Why companies signal sustainability?

• Sustainability as a CA • Sustainability signals to explain why the conventional business model is reinvented	Signalling sustainability as a CA	Strategic drivers
• Sustainability signals develop a transformational strategy (eco and socio efficient • Signals to communicate the type of the strategic resource that sustainability is (transformational or transitional) • Sustainability signals to reflect the type of commitment to eco-centric marketing strategy	Signalling sustainability for defining the type of sustainability strategy	
• Sustainability signals to communicate that a transitional approach can bring profit • Sustainability is imperative for the financial performance of a values driven company	Sustainability brings profit	
• Sustainability signals to help set a framework of sustainability standards • Private companies shape standards of fair trade	Signalling sustainability helps set a signalling sustainability framework	
• Sustainability gets attention from the press, and • Attracts positive publicity	Sustainability signals attract publicity	
• Signalling sustainability affirms a company's ethical stance and CSR claims • Sustainability signals offer a route towards recognition • Sustainability signals help a brand get established in the sustainable fashion segment	Signalling sustainability affirms ethical and sustainability claims in a company's industry	Legitimacy drivers
• Sustainability signals state how	Signalling sustainability attains	

focused a company is on the develop of its sustainability progress • Signalling sustainability reflects how products are produced sustainably	commitment to sustainability programs	
• Signalling sustainability responds to current and future stakeholder needs for information • Sustainability signals respond to an increased demand for sustainable products • Sustainability signals respond for transparency on the impact of stakeholders' choices	Sustainability signals to meet market demand for information and sustainable products	Market drivers
• Sustainability signals to emphasize high standards in product development • Sustainability signals to overcome information asymmetry	Sustainability signals to set sustainability reporting standards	
• Sustainability signals reflect the owner's values system • Sustainability is a core personal choice of how to run a business	Sustainability signals reflect owner's values	Owner drivers
• Sustainability signals to reflect why the owner intrinsically engaged with a sustainable business • Sustainability signals to communicate the tangible and the intangible benefits of sustainability for the business as the owner interprets them	Signalling of owner's reasons to integrate sustainability in the company's business strategy	

The organization of the first order concepts resulted into second order themes which instigated the aggregate dimensions explaining the drivers that urge companies to signal sustainability, namely: strategic, legitimacy, market and owner drivers.

Strategic drivers which instigate sustainability signals are: employ signalling sustainability as a means to achieve competitive advantage, apply sustainability signals to define the type of sustainability strategy that a company follows, utilize sustainability signal to bring profit, and using sustainability signals in order helps the signalling environment to set a signalling sustainability framework.

Legitimacy drivers which prompt sustainability signals are: signalling sustainability to affirm ethical and sustainability claims in the industry the company operates within, and employing sustainability signals to attain commitment to sustainability programs.

Market drivers which instigate sustainability signals include: Signalling to meet market demand for information regarding sustainability and sustainable products and thus help narrow down the existing information asymmetry between companies and stakeholders, and using sustainability signals to set sustainability reporting standards.

Owner drivers which trigger sustainability signals take account of: the owners' values and the owner's reasons to instigate sustainability in the company's business strategy.

The analysis of the first order concepts which lead to these aggregate dimensions related to why companies signal sustainability are analyzed extensively in the next chapter of the thesis, "Chapter 5: Findings - Why companies signal sustainability".

4.11   Data Structure – What do companies signal about sustainability?

The findings of our data structure focus on the reasons as to what do companies signal about sustainability. The findings disclose responses from the two company clusters: cluster A: certified and cluster B: non-certified companies. Table 4.13 presents the data structures, as these emerged from the analysis of the findings, explaining what companies do in order to signal sustainability.

Table 4.13   What do companies signal about sustainability?

1ST ORDER CONCEPTS	2ND ORDER THEMES	AGGREGATE DIMENSIONS
• Innovation to discover new sustainable materials and create yarn • Discover a new production process to reduce impact from using chemicals	Signalling sustainability via a new sustainable product manufacturing process	Signals of sustainable manufacturing processes – new or existing
• Recycling-repurposing • Organic and biodegradable materials • Ethically sourced materials • Waste management processes for end of life products	Signalling sustainability via an existing manufacturing process which is sustainable	
• Telling the story behind a product (transparency of production cycle) • 'Walk the Talk' in terms of applying sustainability strategy and offering proof	Offering transparency in business operations	Signals of transparency
• Transparency in sourcing of materials • Transparency in treatment of materials • Transparency of sustainability standards in production	Transparency in relation to value chain	

• Domestic product manufacturing (eco-centric & ethical approach) • Overseas product manufacturing to support local artisan skills (ethical approach)	"Made in" to signal sustainability	
• The owner's values become signals of sustainability • Sustainability is signalled as part of the company's identity	Sustainability is a corporate value	Sustainability signals are part of the corporate identity
• Business plan against overproduction and overconsumption (Slow fashion) • Sustainability as a signal in the corporate mission • The company signals its obligation towards future generations	Company's commitment to sustainability strategy	

The organization of the first order concepts resulted into second order themes which instigated the aggregate dimensions explaining what companies do to signal sustainability. Companies instigate signals of sustainable manufacturing processes – new or existing, signals of transparency in processes, focusing on their business operations, the structure of their value chain, and the origins of product manufacturing. Moreover, companies send out signals to support the fact that sustainability is part of their corporate identity by explaining how sustainability is a corporate value and how committed they are to their sustainability strategy.

The analysis of the first order concepts which lead to these aggregate dimensions related to what do companies signal about sustainability are analyzed extensively in chapter six (6) of the thesis, "Chapter 6: Findings: What do companies signal about sustainability and the ways they signal".

4.12   Data Structure – The ways companies signal sustainability

The findings of our data also deliberate on the ways that companies signal. The findings reveal responses from the two company clusters: cluster A: certified and cluster B: non-certified companies. Table 4.13 presents the data structures, as these emerged from the analysis of the findings, explaining what companies do in order to signal sustainability.

Table 4.14   The ways companies signal sustainability

1ST ORDER CONCEPTS	2ND ORDER THEMES	AGGREGATE DIMENSIONS
• The design of the product (the appeal, sustainably manufactured, fashionable, good fit) • Sustainable materials as the main signal	Signalling sustainability through product design and quality	Integration of sustainability signals in the marketing mix
• Pricing structure as a signal that sustainability is affordable • Price to reflect that sustainability is costly	Signals of sustainability through pricing structures	
• Use of recyclable materials in the design of a company's retail space • Use of merchandizing materials in company's retail space to signal sustainability	Sustainability elements in the design of a retail space as a sustainability signal	
• Company collateral as overt sustainability signals • Recyclable packaging as an overt sustainability signal • Online CSR reporting as a covert sustainability signals • Usage of word of Mouth through social media to signal sustainability • Appearance at specialized sustainability tradeshows to signal sustainability • Using celebrities to signal sustainable activities	Signals through PR and Promotion	
• Awards as covert sustainability signals • Certifications by featuring eco labels as covert sustainability signals • Certifications by featuring fair trading labels as covert sustainability signals	Signals through awards and certifications	
• Educating stakeholders as a way to signal sustainability (covert signals) • Collaboration with charities to signal sustainability (covert signals)	Signalling sustainability by focusing on improvement public knowledge of social and environmental issues	

The structuring of the first order concepts resulted into second order themes which form the aggregate dimensions explaining the ways signal sustainability. Following

the marketing mix principle companies signal sustainability through product design and quality, through pricing structures, through public relations and promotional activities, through awards and certifications and through programmes focusing on improving the public knowledge of social and environmental issues that current affect our Planet and Society.

The analysis of the first order concepts which lead to these aggregate dimensions related to the ways that companies signal sustainability are analyzed extensively in chapter six (6) of the thesis, "Chapter 6: Findings: What do companies signal about sustainability and the ways they signal".

4.13   Trustworthiness of data

Throughout the process of data collection, it was important to maintain data trustworthiness. In order to achieve trustworthiness, the researcher followed similar guidelines as those set out in Jraisat et al. (2013). Initially the researcher safeguarded all records and materials as they were collected. She then coded the materials by using a standardised coding process as described above (table 4.2). After transcribing the data gathered through interviews, she went back to the respondents and asked them to review the transcripts to ensure that the data were correct. As the primary and secondary data were transcribed and stored, the researcher was able to return to the data and study them on numerous occasions prior to analysing them.

4.14   Validation and verification of methodology

In order to ensure validation and verification of the methodology selected and implemented, the following strategies were adopted following guidelines as set by Creswell (2001), which are presented in table 4.12 below:

Table 4.12: Validation and verification strategies (Creswell, 2001:204)

VALIDATION STRATEGIES	STEPS TAKEN
Triangulation of data	Data are collected through various methods (literature, secondary resources, observation, interviews)

Member checking	The interviewee checks interview material (notes and transcription of recorded material)
Long term observations	Frequent visits to research participants HQ and spaces in three trade shows
Participatory mode of research	The interviewees review results as these occur and will offer further comments
Trustworthiness of data	Data are kept safe and coded by a standardized method. Researcher goes back to the data prior to drawing conclusions
Clarification of researcher bias	Researcher bias is analyzed under the heading of 'limitations of methodology'
External auditor	An auditor unrelated to the research topic and the industry selected was used throughout the process of the research development

Once observation, interview notes, and transcribed interviews were completed, materials were sent back to the interviewees for further checking and to ensure that everything they wished to further comment upon had been correctly recorded. After the study findings were written out, the researcher also asked an external auditor to review the entire project. The external auditor was not familiar with the topic or the industry, therefore could provide valuable opinions throughout the process of this research in order to safeguard validation of the methodology and to present accurate findings (Creswell, 2003).

4.15   Limitations of Methodology

As the method used for this research is qualitative, a purposeful selection procedure was used in order to identify which companies were the most appropriate to participate in the main body of the research. One of the limitations of the selection of qualitative research is that it often does not allow the findings to be generalized (Creswell, 2003).

Moreover, the research design relies on phenomenological research, where the researcher ties in her experiences in order to better comprehend the experiences of the participants in this study (Creswell, 1994). Therefore, the outcome of this research is based on constructivism, which is the truth of "a particular belief system held in a particular context" and it relies upon the "multiple realities" that people have in their minds (Healy and Perry, 2000, p.120; Creswell, 1994). By extension the outcome depends on how the researcher and the interviewee relate and respond to each other

(Healy and Perry, 2000), and if the researcher is a "passionate participant during his/her field work" (Guba and Lincoln, 1994, p. 112, cited in Healy and Perry, 2000, p. 120). Since the researcher was working at the EFF and the EFC throughout the data collection period, she tied in her experiences in order to better comprehend the experiences of the owners and managers of private companies in the sustainable fashion sector.

In addition, one limitation of content analysis, used in this study, could be that one has to work with a smaller number of companies instead of a larger one. Smaller numbers could entail the danger that when a phenomenon occurs in one case it might not occur in another case even when the conditions in regards to context apply (Saunders et al., 2009). This outcome could take place in a sector where private companies with very few employees exist, such as the case of the sustainable fashion sector in the UK. The way that the researcher chose to overcome this limitation was to review and analyze the data derived by the companies which participated in great detail. The author engaged herself with the owners and manager of the private companies participating in this research in various occasions by wearing different professional hats such as: of the professional working for the EFF/EFC, the PhD student conducting academic research and the stakeholder reviewing their work.

A final limitation of the present study is the absence of a solid and universally accepted sustainability evaluation system in the UK, either in the form of formal sustainability credentials or an auditing system (EFF, 2009; Mintel, 2009). Sustainability credentials are a compulsory parameter for companies when entering sustainability focused award competitions or specialized trade shows; however until today there is no universally accepted evaluation system of such credentials. It is important to note that for both the *SOURCE Excellence* categories and for entry into the *Estethica* bi-annual trade shows, the judging panels rely on the information that companies provide in regards to their sustainability credentials, without conducting any further formal audits to applicant companies. The reason formal audits are not conducted is due to the limited resources of private companies, coupled with the fact that there is not one acceptable audit system but many different ones, individually tailored for the auditing needs of different conglomerates (Mintel, 2009). In our study, where sustainability credentials were obtained by applicant companies for entry to the

Estethica tradeshow and the *SOURCE Excellence* competition, which are certified from publicly known certification bodies, such as the Fairtrade Foundation or the WFTO for example, these [credentials] are referenced. Nevertheless, they are not a compulsory criterion to entry for a sustainability award or for participation in as sustainability focused trade show. Even if companies are judged against specific criteria such as sustainability innovation, sustainability design, best practices, and excellence in regards to sustainable practices, what they claim is not necessary to be verified formally.

4.16   Chapter Summary

This chapter describes the selected research methodology and the reasoning behind this choice. It identifies the aim for the research, determines the research setting, and presents the selected qualitative research method, which is phenomenological research. It continues with explaining why interpretivism is the philosophical underpinning of this research, and the reasons behind the selection of the sustainable fashion sector as the industry setting. The chapter continues by presenting how the researcher gained access to conduct her research, and the manner in which the data were collected, followed by the presentation of the criteria for the selection of the relevant companies participating in the main research. The process of data collection is explained, followed with how data were coded as a preparation for the analysis. The data analysis procedure – content analysis- is also presented as well the data structures of why companies signal sustainability, what they signal about sustainability and the ways they signal it. The chapter concludes with discussing how data trustworthiness was achieved and presents details of the validation and the verification processes of the selected methodology, as well as its limitations.

The next chapter will present the findings of the research question: "Why companies signal sustainability?"

CHAPTER 5

DATA ANALYSIS & FINDINGS

WHY COMPANIES SIGNAL SUSTAINABILITY

5.0   Introduction

This Chapter illustrates the findings of the empirical study and deduces the reasons
behind sustainability signalling activity by different companies. The empirical data,
from 33 semi-structured interviews with 24 sustainable fashion companies operating in
the UK, are utilised to explore in depth the reasons for signalling sustainability. Our
findings reveal that the reasons behind sustainability signalling include: (a) internal
strategic drivers, (b) legitimacy drivers, (c) market drivers, and (d) owner drivers.
Furthermore, this chapter identifies similarities and differences in the reasons behind
signalling between the two constituent clusters of companies that comprise the
subjects of study of this research. These groups are termed cluster A: certified
companies, and cluster B: non-certified companies.

5.1   Findings - Why Companies Signal Sustainability

In this Section we consider the findings of our data analysis and concentrate on the
reasons as to why companies signal sustainability. The findings reflect responses from
the two company cluster categories -cluster A:certified and cluster B:non-certified
companies.
Our findings revealed that the reasons why companies signal sustainability are due to
the following factors: strategic drivers, legitimacy drivers, market drivers, and owner
drivers (for data structure see also: Chapter 4, Table 4.12: Whycompanies signal
sustainability, p.126-127). The data relationships, which lead to these four aggregate
dimensions are analysed separately and in more detail below.

5.2   Strategic Drivers

Semi-structured interviews revealed that strategic drivers instigate the need to signal sustainability (see also: Chapter 4, Table 4.12: Why companies signal sustainability, p.126-127). The comparisons between cluster A and cluster B companies in the strategic drivers' category are indicated in Table 5.1 below, along with indicative comments. The term *Strong* represents the views of the majority of participants belonging to a cluster group (51% and above); *Moderate* represents the views of some participants (25-50%). Exact numerical values of responses are furnished in the Table.

Table 5.1 - Drivers of why companies signal sustainability: **STRATEGIC DRIVERS**: *themes with indicative quotes*

THEMES	CLUSTER A: CERTIFIED COMPANIES (7)	CLUSTER B: NON CERTIFIED COMPANIES (17)
Sustainability as a CA for a private company	5/7 Strong*(Central element to strategy)* "Sustainability gives us a distinction in the market place. It is the factor that differentiates us. It has certainly set us apart and let us establish ourselves"(Mkt Director, Co3)	15/17 Strong*(Central element to strategy)* "Sustainability is the most important part of this company's business strategy", (Head Designer, Co18)
Sustainability signals to explain why the conventional business model is reinvented	7/7 Strong *(Shaping the business model along the triple bottom line principle)* "We are trying to reinvent the business model: do things sustainably because profit is not the most important thing in a company, but doing business along the triple bottom line principle is more important", (Mkt Manager, Co5)	12/17 Strong *(Shaping the business model along the triple bottom line principle)* "I think most companies are moving towards this direction (sustainability) because they are now seeing it as business of the future" (CFO, Co24)
Sustainability signals develop sustainability strategy (eco-effective and socio-efficient)	7/7 Strong *(Sustainability signals develop a viable sustainable business ecosystem)* "Our mission is to work closely with people in developing countries to build viable businesses that can sustain communities. So, we pass on our knowledge and help financially, so these fledging businesses can not only meet our high production standards, but also offer a competitive product" (Mkt Manager, Co2)	5/17 Moderate (*Doing business in the sustainable way initiates from self-interest*) "Having an eye to the environment in the design process is just the first step in creating clothes that express both where we are now and what we want the future to be" (COO, Co9)
Signalling communicates the type of strategic resource that comprises sustainability	7/7 Strong *(Sustainability is a core strategic resource for the company)* "For our company sustainability is the trunk of our tree. Foliage is the design, materials and uniqueness. All the qualities are interconnected with sustainability", (Mkt Director, Co3)	15/17 Strong *(Sustainability offers an added value to the company)* "We market a pure lifestyle and by the way, this is added value. It is incorporated in the brand without being the message of the brand", (Mkt Manager, Co13)"

Signalling sustainability reflects the type of commitment to eco-centric marketing strategy	Strong 7/7 (*Signals to explain the journey to discover eco and social sustainability by a transformational strategy i.e. cradle to cradle approach*) "We work strictly with eco-conscious brands and designers who conform to the environmental, economic and social dimensions of sustainability. This is how we set standards" (COO, Co7)	Strong 12/17 (*Signals to explain the journey to discover ecological sustainability by a transitional strategy i.e. reduce, recycle and regulate*) "I did not do anything beforehand, it all just came together. I adjusted my products to represent my sustainability views" (Head Designer, Co14)
Sustainability signals to communicate that a transitional approach (recycling and repurposing) can bring profit	No evidence	13/17 Strong(*Recycling can bring profit when combined with good product design*) "The label is a pioneer in combining sustainability with fashion-forward design; bringing quality and craftsmanship to "exquisite rubbish", (COO, Co11)
Sustainability is imperative for the financial success of a values driven company	7/7 Strong (*Sustainability is a critical element for the overall financial success of a company*) 'For the last 20 years, I've been following this business model which has proved itself. We have been profitable and we are profitable, even with the recession'. (COO, Co3)	15/17 Strong (*Sustainability is a critical element for the overall financial success of a company*) "This has been an ideal mix and standard for me as I believe being conscious of the people and the planet is a corner stone to a successful and profitable designer in this present day", (Head Designer, Co15)
Sustainability signals to help to set a framework of sustainability standards	Strong 5/7 (*Signalling helps towards setting sustainability standards*) "We are "one of the pioneering organizations of the 21st Century which shows others the way to go", (Mkt Manager, Co2)	Moderate 5/17 (*Signals from private companies have no real impact*) "Normally sustainable companies are very small so they have no impact in the industry. It is much better to collaborate with a bigger company", (Creative Head, Co20) Moderate 4/17 (*A niche market inspires big firms*) "Oh definitely we inspire the big firms. I think that people always look into the smaller companies'", (Head Designer, Co10)
Private companies shape standards of fair-trade	Moderate 3/7 (*Participation in forming a signalling language to enhance the development of a universal reporting system*) 'Our company participated in three important international pilot projects over the past four years: the Sustainable Fair Trade Management System, the EU Geo Fair Trade Project and the WFTO Fair Trade Guarantee Label (COO, Co3)	No evidence
Sustainability signals help to get publicity	7/7 Strong (*Sustainability gets attention from the press*) "It is a general message getting across the media and yeah you read more about it", (Head Designer, Co5)	17/17 Strong (*Sustainability gets attention from the press*) "Yes, it is great to get the publicity and it's lovely. It is a great plus", (Head designer, Co14)

5.2.1   Sustainability as a competitive advantage for a private company

> *"Sustainability gives us a distinction in the market place. It is the factor that differentiates us. It has certainly set us apart and let us establish ourselves",*(Marketing Director, Co3)

Signalling sustainability for obtaining a competitive advantage is a step further to what the literature reveals to-date. Broadly, the literature asserts that once sustainability becomes part of the corporate identity of a company, it then develops into a strategic resource (Moore et al., 2012, Sealy et. al., 2010). For the majority of participants (5 out of the 7 comprising cluster A companies, and 15 out of the17 comprising cluster B companies) sustainability is a strategic resource whichis a central and core element of their strategy. A major reason why companies signal sustainability is to gain a competitive advantage. The majority of cluster A companies agree that sustainability is a central element to their strategy, it is a worthwhile pursuit, it helps with the overall strategy because it is beneficial to stakeholders, and it is appreciated by customers. In that respect sustainability as a strategic resource affects everything as far as stakeholders' needs are concerned:

> *"People do appreciate it. The customers do appreciate it. The ethical side of it"*, (Head Designer, Co5).

The majority of cluster B companies (15 out of 17) also agree that sustainability becomes a strategic resource due to the fact that it is a central element oftheir strategy:

> *"Sustainability is the most important part of this company's business strategy"*, (Head Designer, Co18)

Therefore, findings mirror studies (i.e. Walls et al., 2012) which propose that the reason as to why companies signal sustainability is that it helps positively with strategy. These findings suggest that companiesintrinsically engaged with sustainability, advocate that sustainability is a strategic resource for them. They signal it mainly in order to obtain a competitive advantage.

5.2.2   Sustainability signals to explain why the conventional business model is reinvented

> *"We are trying to reinvent the business model: do things sustainably because profit is not the most important thing in a company, but doing business along the triple bottom line principle is more important",* (Marketing Manager, Co5*)*

One of the main reasons that sustainable fashion companies signal sustainability is because they are convinced in its worth and importance. Sustainability is worthwhile because it helps to shape the conventional business model along the triple bottom line principle:

> *"I think most companies are moving towards this direction (sustainability) because they are now seeing it as business of the future",* (CFO, Co24)

5.2.3   Sustainability signals develop sustainability strategy (eco-effective and socio-efficient)

> *"Our mission is to work closely with people in developing countries to build viable businesses that can sustain communities. So, we pass on our knowledge and help financially, so these fledging businesses can not only meet our high production standards, but also offer a competitive product",* (Marketing Manager, Co2)

The findings of the present study reveal that a strategic driver that urges companies to signal sustainability is because it helps positively in the development of their overall sustainability strategy. For most cluster A companies such strategy follows transformational sustainability principles which represent a holistic approach towards sustainability strategy (Borland and Lindgreen, 2013), as it aims to develop a viable sustainable business ecosystem. All cluster A companies agree with this reason.

A moderate number of cluster B companies agree that sustainability offers them an opportunity for growth with an eye to the future (i.e. Lindgreen and Swaem, 2010). However this reason originates from self-interest. They believe that the only way for their company to be viable in the future is to engage in sustainability strategy. For this reason they include sustainability in their signalling strategy:

"Having an eye to the environment in the design process is just the first step in creating clothes that express both where we are now and what we want the future to be", (COO, Co9)

These findings enable us to conclude that signalling sustainability in order to support strategy is a common undertaking for both cluster groups studied, and they confirm previous findings in the literature that discuss the ability of signalling sustainability in strengthening corporate strategy (Walls et al., 2012). Participants from both cluster groups support this argument. However the main difference is that cluster A companies seek to develop a viable sustainable business system, while cluster B engagement with sustainability strategy initiates from self-interest in regards to business viability.

5.2.4   Signalling communicates the type of strategic resource that sustainability is

"For our company sustainability is the trunk of our tree. Foliage is the design, materials and uniqueness. All the qualities are interconnected with sustainability", (Marketing Director, Co3)

Another finding of this study is that signalling communicates the type of strategic resource that sustainability is, as the indicative comments above suggest. This mostly applies to companies belonging to the cluster A group which adopt a holistic approach towards sustainability strategy as also seen previously (Borland and Lindgreen, 2003). The findings of the present study indicate that companies with a holistic sustainability approach signal directly why sustainability is as a core strategic resource to them. Cluster B companies on the other hand, suggested that sustainability adds value for them:

"Yes, it is added value to the product and to the brand, not that many brands are sustainable at the moment", (COO, Co11*)*

However, the fact that not many brands are sustainable weakens the effectiveness of sustainability as a signal. The literature reveals that companies may have different interpretations of what sustainability is (i.e. Aguinis and Glavas, 2012), which is also reflected through sustainability signals. Such signals can weaken the added value of sustainability to a brand (Leiblein, 2011). They also affect and weaken the signals of

other companies within the same signalling environment, and hence reduce the overall signal efficiency and effectiveness. We can conclude, therefore, that sustainability signals do not always reinforce sustainability as a strategic resource when there are many superfluous sustainability signals within the same signalling environment. We discovered that precisely because of this reason, the majority of cluster B companies are not sure whether to openly signal sustainability or not. In order to avoid weakening their brand value -due to pre-existing shallow signals within their signalling environment- they incorporate indirect signals without making sustainability the main signal of their brand.

> *"We market a pure lifestyle and by the way, this is added value. It is incorporated in the brand without being the message of the brand"*, (Marketing Manager, Co13)"

The remaining 2 (out of 17) companies in cluster B do not signal sustainability extensively, mainly because they are not 100% sustainable, something that they readily admitted. Once again, instead of sending shallow signals, they do not signal at all as to why sustainability is important to their strategy as a strategic resource.

The findings of the data analysis point to two clear types of sustainability signalling strategies which indicate the type of strategic resource that sustainability is for a company: When a company can offer clarity and depth in the construction and delivery of sustainability signals, then these signals reinforce the fact that sustainability is a primary strategic resource of the company that sends them. When a company signals sustainability indirectly, *ad hoc* or not at all, it is indicated that sustainability is an added resource. The outcome of these two signalling strategies creates partial signals within a common signalling environment. These findings also suggest that there is asymmetry in the opinions of private companies intrinsically engaged with sustainability, regarding the type of strategic resource that sustainability represents for them.

5.2.5 Signalling sustainability reflects the type of commitment to eco-centric marketing strategy

The findings suggest that cluster A companies have clear sustainability practices that offer strengths to their signals, a finding that is in agreement with an earlier study by Moore et al. (2012). Cluster A companies cover all aspects of the triple bottom line principle (environmental, ethical and economic growth). They signal not only to inform others of their activity, but also to reinforce their commitment to their sustainability promises:

> *"We work strictly with eco-conscious brands and designers who conform to the environmental, economic and social dimensions of sustainability. This is how we set standards"*, (COO, Co7).

At other times signalling may force a company to restructure their communication avenues in order to show their commitment to sustainability strategy. These signals can explain the journey to discover eco and social sustainability by a transformational strategy i.e. a cradle to cradle approach (Borland and Lindgreen, 2013):

> *"We are really good at doing the work, but not very good in communicating it. We have often fallen off the final phase which is putting the information on the product"*, (COO, Co3)

Companies belonging to cluster B have a much less systematic sustainability strategy in comparison to companies belonging to cluster A. It becomes evident in their signalling also because it is more casual and *ad hoc*:

> *"I did not do anything beforehand, it all just came together. I adjusted my products to represent my sustainability views"*, (Head Designer, Co14)

Their signals explain the journey to discover ecological sustainability by a transitional strategy i.e. reduce, recycle and regulate (Borland and Lindgreen, 2013). However, most cluster B companies (12 out of 17) did not touch upon the topic of commitment to strategy as expressed through their signalling structures. For this reason, we conclude that in the signalling environment of companies intrinsically engaged in sustainability, cluster A seem more committed to their sustainability strategy than cluster B. When sustainability strategy is specific this is reflected through signalling:

signals explain the journey to discover eco and social sustainability by a specific approach. When a less streamlined sustainability is communicated through signals, signalling becomes *ad hoc* and casual. These differences in signalling structures create partial signals in their signalling environment.

5.2.6 Sustainability signals to communicate that a transitional approach (recycling and repurposing) can bring profit

Cluster B companies reveal that for them recycling and up-cycling methods of production [these are transitional approaches to ecological sustainability (Borland and Lindgreen, 2013)], are a profitable way to source materials for their products –indeed they state that they signal this fact. Cluster B companies send the message that the process of recycling/up-cycling, when combined with good design, creates highly desirable products. If a product is highly desirable it will also bring profits.

> *"The label is a pioneer in combining sustainability with fashion-forward design; bringing quality and craftsmanship to "exquisite rubbish", (*COO, Co11).

In addition, among cluster B companies that choose to recycle, two favourable arguments are identified regarding the profitability of recycling practices:(i) recycling safeguards a company from the rising prices of organic and natural raw materials, and (ii) because they can source materials cheaply; 4 out of 17 companies agree with these statements.

> *"It is a 'good money making' approach*", (Marketing Manager, Co24)"

Cluster A companies did not comment on whether a transitional approach brings profits. This is mostly due to the fact that they tend to focus on eco and cradle to cradle approaches of sourcing (such as sustainably sourced natural materials, i.e. cotton, wool and silk), instead of recycling materials. They mainly use recycled materials as a secondary sourcing method, for trimmings, buttons and finishing of garments. They mentioned that parts of their products may include recyclable materials, but this is not the main focus in their signalling. In addition, since they offer no opinion on whether re-cycling and up-cycling methods can bring profits, we can conclude that there is a

difference in both opinion as well as signalling activity pertaining to profit benefits resulting from re-cycling and up-cycling.

5.2.7 Sustainability is imperative for the financial success of a values driven company

> *"For the last 20 years, I've been following this business model which has proved itself. We have been profitable and we are profitable, even with the recession"*, (COO, Co3)

Profit is a strategic driver underpinning signalling sustainability for private companies. Our findings demonstrate that for both cluster groups, sustainability is a critical element for the overall performance of a company, including its financial success:

> *"This has been an ideal mix and standard for me as I believe being conscious of the people and the planet is a corner stone to a successful and profitable designer in this present day"*, (Head Designer, Co15)

However, as there is variation in the types of sustainability practices that could be profitable, this variation is inevitably reflected in signalling. Both clusters believe and support the view that sustainability, as a triple bottom line business model (Belz and Peattie, 2009), is profitable. However, cluster A companies mainly reflect a transitional approach towards an ecological business strategy (Borland and Lindgreen, 2013), whereas cluster B companies maintain that a triple bottom line can bring profits as long as the primary source of materials for product manufacture come from reclaimed materials, in other words they utilize a waste management process as a resource. By "waste management processes as a resource" we mean the processes of sourcing materials to create new products, mainly by methods of recycling and up-cycling. Interestingly, however, most of the cluster A companies do not rely on waste management processes as a resource of sustainability (6 out of 7).

Hence, profitability is an incentive and reason to signal sustainability as part of a company's business model, but cluster A and cluster B companies have different views and signals as to which sustainability strategy is the most profitable. This creates another mechanism of generating information asymmetry to stakeholders, especially other startups that want to enter this market segment.

5.2.8 Sustainability signals help to set a framework of sustainability standards

> "*We are one of the pioneering organizations of the 21st century which shows others the way to go*", (Marketing Manager, Co2).

The majority of participants working in cluster A companies reveal that the types of signals used by their companies help towards setting sustainability standards in the industry which can in turn be followed by anyone (large or small company). In this way, they are inspirational to big firms. Some participants from cluster B companies (4 out of 17) agree with this mechanism, as they feel that a niche market can be a place of inspiration for the bigger firms:

> "*Oh definitely we inspire the big firms. I think that people always look into the smaller companies*", (Head Designer, Co10)"

However most cluster B companies do not know whether they can be influential or not. Most of the participants from cluster B could not offer an opinion on this (10 out of 17), whereas a small number (5 out of 17) said that a small company has no impact in the industry on its own but could possibly have an impact through collaboration with a bigger firm:

> "*Normally sustainable companies are very small so they have no impact in the industry. It is much better to collaborate with a bigger company*", (Creative Head, Co20)

Therefore, the majority of cluster A and a moderate number of cluster B companies believe that with their signals they help towards setting up a signalling platform for sustainability, and fundamentally affect the signalling environment of their sector. The majority of cluster B companies either do not believe that they are influential to their industry in terms of sustainability signalling or did not express an opinion regarding such an influence.

5.2.9 Private companies shape standards of fair-trade

The findings of the present study indicate that private firms aspire to become a source of inspiration and to influence their signalling environment with the aim of shaping

standards of fair-trading. Our findings indicate that only3 out of the 7cluster A companies participate actively in projects promoted by certifying organizations, which aim to develop a universal fair-trading reporting system:

> *"Our company participated in three important international pilot projects over the past four years: the Sustainable Fair Trade Management System, the EU Geo Fair Trade Project and the WFTO Fair Trade Guarantee Label"*, (COO, Co3).

Revisiting the question of companies' influence on shaping fair-trade standards, our study has established that there is no evidence that cluster B companies can wield such influence. We can conclude that only a few cluster A companies were in the position to maintain that their participation in forming a signalling language enhances the development of a universal reporting system of fair-trade.

5.2.10 Sustainability signals help to get publicity

> *"It is a general message getting across the media and yeah you read more about it"*,(Head Designer, Co5)

All participating companies in this study agree that they signal sustainability because it helps to get attention from the press. More specifically, the majority of participants in this study agree that sustainability signals offer positive PR and the association with sustainability offers prestige and appeal to a company.

> *"Yes, it is great to get the publicity and it's lovely. It is a great plus"*, (Head designer, Co14)

All companies also agree that sustainability attracts positive publicity. Sustainability signals help with positive PR not only for the company but also for the overall sustainability sector. In regards to appeal in relation to sustainability, the literature discusses that the appeal linking a company to a cause creates a sense of euphoria and emotional empowerment that can be experienced by stakeholders when they associate themselves with a specific company (Belz and Peattie, 2009). On that note, the majority of respondents from both cluster groups agree with this previous finding from the literature:

"Yeah, it is good as well for the…what is the word I am looking for? The association. The prestige. You know you want to be part of it all. It builds you up as a brand", (COO, Co12)

5.3 Legitimacy drivers

Data from semi-structured interviews also revealed that legitimacy drivers prompt the sustainability signals. Table 5.3 below compares findings between cluster A and cluster B companies with indicative comments. Legitimacy drivers are a result of a company's affirmation of ethical and sustainability claims, and also a result of a company's need to attain commitment to sustainability programs (see: Chapter 4, Table 4.12: Why companies signal sustainability, p.126-127). The analysis of legitimacy drivers proceeds below in more detail. The term *Strong* represents the views of the majority of participants belonging to a cluster group (51% and above); *Moderate* represents the views of some participants (25-50%).

*Table 5.2 - Drivers of why companies signal sustainability - **LEGITIMACY DRIVERS**: themes with indicative quotes*

THEMES	CLUSTER A: CERTIFIED COMPANIES (7)	CLUSTER B: NON CERTIFIED COMPANIES (17)
Signalling sustainability affirms the company's ethical stance and social responsibility claims	7/7 Strong*(Sustainability is part of a company's DNA)* "We are pioneers in creating and evolving a high end women's wear business with a common sense approach to sustainability, a commitment to transparency and a belief in business that treats people, planet and profit with equal importance", (COO, Co1)	10/17 Strong *(Sustainability is part of a company's DNA)* "Sustainability is what we do in this phase of our business. So it is absolutely essential. It is not a separate policy, or a separate strand mark. It is what we are", (Mkt Director, Co24) 7/17 Moderate (*Unsure that sustainability signals affirm the companies' CSR claims*) "There are synergies in everything that a company is doing (to support our sustainability strategy). And there is probably a message that is getting out there. I don't know what this message is", (COO, Co11).
Sustainability signals offer a route towards industry recognition	7/7 Strong*(Sustainability signals help the company get established in its industry* "The fact that we are in London Fashion Week (Estethica) under that banner enables us to market in an 'all fashion community. We are able now to really be at the front edge of a lot of fashion and style and we push it and push it", (COO, Co5)	17/17 Strong*(Sustainability signals help the company get established in its segment)* "If it wasn't for sustainability we would have never been part of Estethica", (Head of Design, Co10)

Sustainability signals help a company get established in the sustainable fashion segment	7/7 Strong*(Sustainability signals help the company get established in its segment)* "Sustainability gives us a distinction in the market place. It is the factor that differentiates us. It has certainly set us apart and let us establish ourselves", (Mkt Director, Co3)	17/17 Strong *(Sustainability signals help the company get established in its segment)* "We continue to build our library of luxurious sustainable fabrics allowing our pieces to compete against the mainstream luxury competitors", (COO, Co9)
Sustainability signals state how focused a company is on the development of its sustainability strategy	7/7 Strong (*Proactive development of eco and social sustainability strategy*) "For the fair-trade project we've factually collected about 100 indicators (social, economic and off the list). So there is a map of exactly where the products are located" (COO, Co3)	Strong 17/17 Strong(*Reactive development / Emphasis on use of sustainable production methods for eco and social sustainability*) "As an ethical brand we invent ways of designing beautiful products by innovating in the pattern cutting process – the result is a minimum number of components and minimum impact on the Planet", (Head Designer, Co15)
Signalling sustainability reflect how products are produced sustainably	Strong 7/7(*Signalling sustainability reflects s the development of a transformational production strategy*) "I have worked in fashion for over a decade and everything that I thought was impossible is very easy and simple. It only takes one decision", (COO, Co4)	Strong 10/17 (*Signalling sustainability reflects the development of transitional production strategy*) "What I am stating is: this is who I am, this is what I use. I am saying that I am trying to do the best I can in this situation", (Head designer, Co14

5.3.1   Signalling sustainability affirms the company's ethical stance and social responsibility claims

"*We are pioneers in creating and evolving a high end women's wear business with a common sense approach to sustainability, a commitment to transparency anda belief in business that treats people, planet and profit with equal importance*", (COO, Co1)

According to all cluster A companies and a majority of cluster B companies (10 out of 17), signalling sustainability is an affirmation of a company's sustainable stance, social responsibility claims and its commitment to its sustainable strategy. This finding forms a continuation of an earlier finding from the CSR literature, where it is established that a company condemns unethical activity through sustainability signals (Adams et al., 2001). Our findings suggest that private companies send out sustainability signals not only to condemn unethical activity but also to affirm their sustainable strategy. Most participants are confident in what their messaging conveys as it reflects the essence of the company:

> *"Sustainability is what we do in this phase of our business. So it is absolutely essential. It is not a separate policy, or a separate strand mark. It is what we are",* (Marketing Director, Co24)

However some companies (7 out of 17) from cluster B, commented that even if they signal sustainability to affirm their strategy to external stakeholders, they are unsure about what type of signals emerge from this engagement.

> *"There are synergies in everything that a company is doing (to support our sustainability strategy). And there is probably a message that is getting out there. I don't know what this message is",* (COO, Co11)

Therefore, even if companies signal sustainability to affirm their sustainable stance in relation to strategy development, some companies are uncertain as to the effectiveness of their signals. On the one hand cluster A companies are certain that their signals affirm their sustainability claims. On the other hand, however, almost half of cluster B companies are not sure whether their signals affirm their sustainability stance. Recent literature also noted a similar finding; managers are not certain about the meaning of the value of CSR orientation(i.e. Schmitt and Renken, 2012). The present study moves one step further, showing that such uncertainty also affects why sustainability is signalled, which in turn leads to information asymmetry and weakens signals acting in a similar signalling environment.

5.3.2   Sustainability signals offer a route towards industry recognition

The findings of the present study reveal that one of the main reasons that sustainable fashion companies signal sustainability is because it offers them recognition within the industry they belong to and not just their particular industry segment. The literature discusses the ability of signalling sustainability in strengthening corporate identity (Walls et al., 2012). However, offering firm recognition within the industry constitutes a step further and a new finding. By signalling sustainability the companies that participated in this research aim to get established in the general fashion industry:

> *"The fact that we are in London Fashion Week (Estethica) under that banner enables us to market in an 'all fashion community. We are able now to really be at the front edge of a lot of fashion and style and we push it and push it",* (COO, Co5)

As part of the fashion industry they compete against the mainstream fashion companies but at the same time differentiating themselves by being a sustainable company:

> *"If it wasn't for sustainability we would have never been part of Estethica",*
> *(Head of Design, Co10)*

Our findings indicate that signalling sustainability helps a company in its journey to become established within its industry. Participants from both cluster groups agree with this statement.

5.3.3   Sustainability signals help a company get established in the sustainable fashion segment

> *"Sustainability gives us a distinction in the market place. It is the factor that*
> *differentiates us. It has certainly set us apart and let us establish ourselves",*
> (Marketing Director, Co3)

Another reason why companies signal sustainability is that it helps them to become established in their segment – not just their industry. In the context of the present study the sustainable fashion segment operates under the umbrella of the fashion industry. In that role they can have a positive overall influence in the sector by signalling that a sustainable company can also compete against the mainstream industry without having to compromise its product but instead offering an even better one, as the indicative quote that follows implies:

> *"We continue to build our library of luxurious sustainable fabrics allowing our*
> *pieces to compete against the mainstream luxury competitors", (COO, Co9)*

Therefore, all companies from both cluster groups agree that by signalling sustainability they differentiate themselves from their immediate competition, which also helps them further establish themselves as a role model in their industry sector.

5.3.4   Sustainability signals state how focused a company is on the development of its sustainability strategy

As also mentioned in the literature review chapters, because sustainability is a complex business practice, it is in continuous development. The literature reveals that there is a lack of a widely accepted definition and understanding of what sustainability is and how it affects strategy (Freeman and Hasnaoui, 2010), and this is reflected in the complexity of rhetoric construction of CSR (Castelló and Lozano, 2011). Such literature findings are built upon by the findings of this study, which reveal that cluster A companies place emphasis in the continuous development of their sustainability communications in order to create coherent and straightforward signals and to emphasise how focused they are on the development of their sustainability strategy:

> *"For the fair-trade project we've factually collected about 100 indicators (social, economic and off the list. So there is a map of exactly where the producers are located",* (COO, Co3)

Such signals reflect the lengths that a company is willing to go to in order to develop its sustainability strategy. Cluster A companies adopt transformational marketing strategies (Borland and Lindgreen, 2013), which are *proactive* in developing eco and social sustainability initiatives. Their approach is also emphasized by why cluster A companies signal.

Cluster B companies, however, use mostly transitional sustainability methods (Borland and Lindgreen, 2013) and consequently adopt mixed and heterogeneous signals in order to explain their effort in becoming as sustainable as possible. Such approaches to sustainability are reactive and focus upon improving existing production methods in order to achieve low emissions and assurance in fair trade. They are *reactive*, because they do not offer a new solution but improve an existing transitional approach.

A typical example of transitional initiatives that cluster B companies signal about is the use of sustainable production methods for eco sustainability to minimize the use of pollutant components in garments that are not easily recycled.

> *"As an ethical fashion brand we invent ways of designing beautiful products by innovating in the pattern cutting process-the result is a minimum number of components and minimum impact on the Planet"*, (Head Designer, Co15)

Others emphasize local production as the signpost of social sustainability:

> *"Clothes are made in London. Everything we make is London-London-London and we say that"*, (COO, Co10)

Therefore, the findings of the present research suggest that private companies use sustainability signals to reflect the different lengths they will go to in developing sustainability marketing strategies. Some companies engage in very specific and serious efforts to be as sustainable as possible and engage in transformational sustainability initiatives (cluster A). Their signals also reflect transformational strategy. Others engage in transitional approaches and signal their actions in improving their operations according to eco and social sustainability parameters (cluster B). This differentiation in effort and signals also creates heterogeneity in signalling.

5.3.5   Signalling sustainability reflects how products are produced sustainably

Transparency in business practices urge cluster A companies to send more specific sustainability signals in comparison to cluster B companies. Respondents from cluster Aadmitted that when they contemplate signalling, and indeed prior to signalling, they streamline the production process. As they mostly engage in transformational sustainability strategy, firstly they have to understand fully what it is that they do and then explain it to other people. Therefore, companies belonging to cluster Ause signalling as part of the effort to make their transformational production strategy systematic and comprehensive to them first and then to others:

> *"I have worked in fashion for over a decade and everything that I thought was impossible is very easy and simple. It only takes one decision"*, (COO, Co4)

Our findings suggest that because cluster A companies have clarity in production strategies that are set prior to signalling, they aim through signalling to make their transformational sustainability strategy systematic and comprehensive to their

stakeholders as well. Due to the clarity of their strategy, their signalling is also clearer. Developing a signalling language to communicate strategy development constitutes advancement towards setting sustainability standards. Companies belonging to cluster A reveal that the complexity of the production processes poses a challenge in signalling and communications. Signalling as a tool, can explain complexity of sustainability processes but is faced with numerous challenges. The main reason for such signalling challenges is due to the current lack of specified sustainability criteria that can be used as benchmarks for sustainability standards, i.e. a garment can be made of certified organic and ethically traded cotton but sewn in an unethical factory. For this reason, cluster A companiesstreamline their activities and practices and then explain them to stakeholders with as much detail as possible. In that respect their signals are clear, straightforward and reflect how their products are produced sustainably.

Cluster B companies also wish to explain the journey they go through in applying sustainability initiatives in their production:

> *"What I am stating is: this is who I am, this is what I use. I am saying that I am trying to do the best I can in this situation",* (Head designer, Co14)

However, as shown here, the sustainability strategy of cluster B companies is less systematic and reflects transitional approaches to sustainability strategy, and hence their signalling seems to be somewhat *ad hoc*. The fact that a full set of sustainability criteria does not exist (Mittal 2007) was also confirmed by cluster B companies, and this also deters them from sending homogeneous signals to their stakeholders:

> *"The criteria for sustainability exist but they are not fixed"*, (Head Designer, Co20).

The findings surmise that all companies agree that production processes can be explained through sustainability signals. However, as the complexity of production processes is not juxtaposed against a fully accepted set of signalling criteria, this allows for two signalling patterns: systematic and clear signals from cluster A and *ad hoc* signals from cluster B companies. These patterns create information asymmetry

and heterogeneous signals from companies belonging to a similar signalling environment.

5.4   Market drivers

Data analysis also reveals that sustainability signals are also a product of market drivers (see also: Chapter 4, Table 4.12: Why companies signal sustainability, p.126-127). Market drivers emerge from the urgency to produce signals that meet the market demand for information regarding sustainability and sustainable products, in addition to the need to set sustainability reporting standards. Table 5.4 below compares findings between cluster A and cluster B companies. A more detailed analysis of the themes belonging to this category of drivers is included below. The term *Strong* represents the views of the majority of participants belonging to a cluster group (51% and above); *Moderate* represents the views of some participants (25-50%).

Table 5.3 Drivers of why companies signal sustainability – MARKET DRIVERS: themes with indicative quotes

THEMES	CLUSTER A: CERTIFIED COMPANIES (7)	CLUSTER B: NON CERTIFIED COMPANIES (17)
Signalling sustainability responds to current and future stakeholder needs for information about sustainability	Strong 7/7 *(Sustainability signals in order to build stakeholder awareness of sustainability)* "So the message seems to be, more often than not, you are not going to change the World completely and we don't want to change your World, but please be conscious of what you do, and here's the tool for you to make a little bit of a difference. "It is hard to ask people: well now you can't do this anymore. It's more like: now if you make a choice and buy this product it will make a different somewhere" (Coo, Co5).	Strong 16/17 *(Distributors ask for supplementary information to understand the sustainability angle of a business)* "Retailers ask about sustainability element and they are supplied with reports explaining the technical side of the product and information about its production process, because it helps them sell it better", (Head Designer, Co18)
There is an increase in demand for sustainable products	7/7 Strong*(Opinion market leaders help increase the demand for sustainable products)* "There is an increased demand for sustainable fashion and doors are opening for sustainable products now. One of the main reasons is people placed in top positions with decisive power which can change buying trends (from a company's buying angle)", (Mkt Manager, Co2).	12/17 Strong*(Increase of demand from retailers)* "Retailers ask about the sustainability element. Interest keeps increasing", (Head Designer, Co18)
Transparency signals to offer stakeholders the	7/7 Strong (*Transparency is an important signal for all stakeholder groups)* "I am looking at a garment, the way and how we	Strong 12/17(*Transparency is a somewhat important signal for UK based stakeholder groups)*

choice to be aware of the impact of their choices	got to wear it, so we are looking at the different locations, different suppliers and their information, how long it took to cut, how long it took to put together, it is all the information that we have available on the website and everyone can see it. And how much we paid to have it made and how much we are charging you and why", (Marketing Manager, Co4)	"Most people say they want something which is ethical and sustainable, but they are not going to pay extra for it", (Head designer, Co17) 5/17 Moderate (*Transparency is an important signal for all stakeholder groups*) "It is really important to explain and to present what ones does. How one chooses the products and the materials is important information to give out", (Head Designer, Co19)
Sustainability signals to emphasize high standards in product development	7/7 Strong (*Sustainability signals emphasize high standards*) "We work strictly with eco-conscious brands and designers who conform to the environmental, economic and social dimensions of sustainability", (COO, Co7)	11/17 Strong (*Sustainability signals compromise the high standards of the product*) "I do not want to signal that side because it is a cliché. It becomes a very cheap way in showing something that should not been seen as a cheap product. A product involves a lot of skills, a lot of time to make it look like this. So if you give out this information it seems that the quality of the product is compromised in the eyes of the consumer", (Head Designer, Co18
Sustainability signals to overcome information asymmetry	Strong 7/7 (*Signals to overcome information asymmetry between companies and consumers*) "I think part of the problem with our society is that people don't know. Awards and certifications set an example to businesses and the government for a fair trade model, people centred values and sustainability", (Mkt Manager, Co2)	Strong 17/17 (*Signals to overcome information asymmetry between companies and consumers*) 'Initially people did not get it. They did not. Most still don't" (Head Designer, Co14) Moderate 4/17 (*Signalling needs to be specific to avoid green-washing*) "There are so many brands that put information that is not true, so it is really important to explain and to present what one does", (Head Designer, Co19)

5.4.1 Signalling sustainability responds to current and future stakeholder needs for information about sustainability

The urgency of the market demand for information in regards to sustainability is evident from previous literature (i.e. Walker and Wan, 2012; Vandekerckhove et al., 2008). Participants in this study also discussed this increased interest for more information in their signalling environment. The demand for more signals is instigated by the increasing centre-stage role that sustainability is occupying in everyday life (Belz and Peattie, 2009) and by the fact that companies face great pressure to change their business practices (D'Astous and Legendre, 2009).

In fact all 7 companies belonging to cluster A, as well as a large majority from those belonging to cluster B (16 out of 17), agree that there is an increasing interest in sustainability and sustainable products from stakeholders:

> *"So the message seems to be, more often than not, you are not going to change the World completely and we don't want to change your World, but please be conscious of what you do, and here's the tool for you to make a little bit of a difference"* (COO, Co5)

They also said that sustainability signals help to build market awareness of the existence of sustainable companies in a given industry. However, it is not evident from our data whether all stakeholder groups meet this interest for information about sustainability equally. Cluster B companies (16 out of 17) reveal that stakeholder groups, who directly affect the development of a company (distributors in the present study), mostly instigate the increased demand for signals about sustainability, in order to understand the sustainability angle of the business:

> "*Retailers ask about sustainability element and they are supplied with reports explaining the technical side of the product and information about its production process, because it helps them sell it better*", (Head Designer, Co18).

Therefore, our findings suggest that signalling sustainability responds to stakeholder needs for information about sustainability. This, results in an increased interest for sustainable products and consequently companies send out sustainability signals. However, not all stakeholder groups seek information about sustainability, but rather specific groups of stakeholders who affect the development of business strategy directly. Partial interest in information about sustainability emphasizes heterogeneity and partial signals around sustainability matters, a finding also confirmed by previous literature (Sharma and Henriques, 2005).

5.4.2   There is an increase in demand for sustainable products

Our findings also show that companies signal sustainability because there is common agreement that there is an increase in demand for sustainable fashion products. Cluster A companies believe that this is due to the fact that many retail executives that favoura

triple bottom line solution towards fashion, are occupying key retail positions. As opinion leaders for the fashion industry, they help increase the demand for sustainable products.

> "*There is an increased demand for sustainable fashion and doors are opening for sustainable products now. One of the main reasons is because people are placed in top positions with decisive power which can change buying trends*", (Marketing Manager, Co2).

Cluster B companies think (specifically 12 out of 17) that this demand is due to sustainability being a trend, while it is possible that "green" solutions currently explored by private companies may also interest big companies as they enquire about and explore sustainability:

> "*Retailers ask about the sustainability element. Interest keeps increasing*", (Head Designer, Co18)

5.4.3   Transparency signals to offer stakeholders the choice to be aware of the impact of their choices

Our findings also reveal that this interestfor more information as far as sustainability is concerned, exists because stakeholders are now able, either directly or indirectly, of being aware of the impact of their choices. This is achieved through signals of transparency as all cluster A companies agree:

> "*I am looking at a garment, the way and how we got to wear it, so we are looking at the different locations, different suppliers and their information, how long it took to cut, how long it took to put together, it is all the information that we have available on the website and everyone can see it. And how much we paid to have it made and how much we are charging you and why*", (Marketing Manager, Co4)

A moderate number of cluster B companies (5 out 17) also agree that transparency is the most important signal, and something that is expected by their stakeholders:

> "*It is really important to explain and to present what ones does. How one chooses the products and the materials is important information to give out*", (Head Designer, Co19)

However, even with an increase in demand for sustainable products and information revolving around them, some companies (4 out of 17) belonging to cluster B are not sure whether consumers will pay more for sustainable products:

> "*Most people say they want something which is ethical and sustainable, but they are not going to pay extra for it*", (Head designer, Co17)

Our findings suggest that the increased interest for information on sustainability urges companies to send comprehensive signals in order to inform stakeholders of their choices. The question of whether consumers will pay more or not for a sustainable product does not stop companies from signalling sustainability, and all companies which participated in this research agree with this statement.

5.4.4   Sustainability signals to emphasize high standards in product development

> "*We work strictly with eco-conscious brands and designers who conform to the environmental, economic and social dimensions of sustainability*", (COO, Co7)

One of the main reasons that companies signal sustainability is because they want to emphasize the high standards involved in developing a sustainable product. Creating something sustainably is not easy as there are many dimensionsthat a sustainable company has to consider: environmental, social and economical. For these reasons, a sustainable product is the result of high standard practices and this is compels companies from cluster A to signal sustainability. Cluster B companies however, even though their products have high production standards, are not sure that this is a message they want to have linked with their companies. Affected by existing negative images associated in the minds of consumers with eco products from the previous decades, which had no style, were shapeless and were made from scratchy eco materials (EFC, 2009; Siegle, 2008), 11 out of 17 cluster B companies are not sure whether sustainability signals will emphasise the high standards of their products or will just compromise their quality in the eyes of consumers:

> "*I do not want to signal that side because it is a cliché. It becomes a very cheap way in showing something that should not be seen as a cheap product. A product involves a lot of skills, a lot of time to make it look like this. So if you*

> *give out this information it seems that the quality of the product is*
> *compromised in the eyes of the consumer",* (Head Designer, Co18

Therefore, the findings of the present study suggest that we have two different reasons for signalling sustainability related to market drivers: (i) cluster A companies emphasise the high standards necessary in order to manufacture a sustainable product through signals; (ii) cluster B companies will not signal about the sustainability elements of their products, as they are worried that by signalling they might compromise product quality in the eyes of consumers. This reasoning creates heterogeneity in the signalling sustainability environment regarding communication of high standards in product development.

5.4.5   Sustainability signals to overcome information asymmetry

> *"I think part of the problem with our society is that people don't know. Awards*
> *and certifications set an example to businesses and the government for a fair*
> *trade model, people centred values and sustainability",* (Marketing Manager,
> Co2)

Participants agree that signalling can help with increased demand for information as far as sustainability is concerned, and with narrowing down the information asymmetry, that exists (Narayanan and Manchanda, 2009). The asymmetry is a result of the coexistence of clear and unclear sustainability strategies as revealed by the literature (Dickson et al., 2012) as well as our data presented earlier.

This research found that participant companies of both cluster categories confirm the view that a useful initial step to improve the efficiency of sustainability signalling is to narrow down the information asymmetry that currently exists. This asymmetry is mostly due to the fact that stakeholders do not know much about sustainability:

> *'Initially people did not get it. They did not. Most still don't"* (Head Designer,
> Co14)

Another source of information asymmetry arises due to uncertainty by a number of private companies that are intrinsically engaged with sustainability, regarding what signals to send out to best depict the essence of their company and their sustainable products. This research also establishes that the majority of private companies that

worry about such negative implications belong to cluster B companies, which are uncertified and/or do not have as clear sustainability structures as their certified counterparts belonging to cluster A.

The companies that feel this way (from cluster B), explain that this is a direct result of negative associations with sustainability caused by green washing from non-sustainability committed companies. Non-sustainability committed companies do not engage with sustainability intrinsically but only engage with it superfluously (Morris et al., 2002). Companies participating in the present study agree that in order to avoid connotations of green washing, signals should be explanatory. Primarily such signals should not propagate false impressions about products but must be designed to explain clearly what one does:

> *"There are so many brands that put information that is not true, so it is really important to explain and to present what one does",* (Head Designer, Co19)

Within the context of overcoming information asymmetry, therefore, companies intrinsically engaged with sustainability agree that they need to address the information asymmetry instigated by their stakeholders' limited knowledge of sustainability. For these reasons they send signals. However for their signals to be comprehensive and to overcome information asymmetry they need to be truthful and explanatory. When a company can use a certification against a claim then the signal becomes truthful and self-explanatory. When a company cannot use such certification then the signals become unsupported and far from self-explanatory. The main difference in companies participating in this study is that cluster A companies use certifications, whereas cluster B companies do not.

5.5   Owner- Drivers

The owner of the company instigates another set of drivers that urge private companies to signal (see also: Chapter 4, Table 4.12: Why companies signal sustainability, p. 126-127). The present research finds that owner-drivers essentially derive from two sources: (i) the owner's values system, and (ii) the owner's reasons to integrate sustainability in the company's business strategy. These themes are presented and

analysed in detail in Table 5.5 below. The term *Strong* represents the views of the majority of participants belonging to a cluster group (51% and above); *Moderate* represents the views of some participants (25-50%).

*Table 5.4 - Drivers of why companies signal sustainability – **OWNER-DRIVERS**: themes with indicative quotes*

THEMES	CLUSTER A: CERTIFIED COMPANIES (7)	CLUSTER B: NON CERTIFIED COMPANIES (17)
Sustainability signals reflect the owner's values system	Strong 7/7 *(Sustainability develops as owner's sustainability values reflect a 'personal quest')* "We constantly try to improve our sustainable business practice (a personal quest) by using a wide range of sustainable textiles and by manufacturing all of our products in London", (COO, Co1)	Strong 17/17 *(Sustainability is integrated in owner's values)* "I have always been exposed to the harmony between the people and the environment. All this has made a significant impact on the person I am today. Also, my mother was always involved with community and welfare projects in my country of origin, which focused on assisting and uplifting women in rural communities. Challenging myself to develop a product range that was attractive and functional with an ethos of being ethically sustainable was my driving force", (Head designer, Co15)
Sustainability is a core personal belief in how to conduct business	Strong 7/7 *(Sustainability is a core belief)* "Sustainability is our core belief, this is what we do and we are not going to compromise it because it will affect how we produce our products", (COO, Co5)	Strong 17/17 *(Sustainability is a core belief)* ''We are actually living it. For me it is something worthwhile. It is something that you sustain and maintain; when we are up-cycling we maintain and sustain the life of the fabrics for every kind of level", (COO, Co10)
Sustainability signals to reflect why the owner became intrinsically engaged with sustainability	Strong 5/7 *(Sustainability was a discovery while owner was working at a different capacity)* "I founded my company 2005 after previously spending time in Brazil and working for Amnesty International. I started my company as part of a wider campaign, to devise an ethical new business model for the fashion trade. This model maximizes the social, environmental and financial returns for all our stakeholders", (COO, Co6)	Strong 14/17 *(Owner discovered sustainable production methods while training in fashion studies)* "The whole reason why we set up and we started the business was there were no companies I wanted to work with, because there were not in this sector. There wasn't anything going on. So, I had to set up", (COO, Co12)

Sustainability signals to communicate the tangible and intangible benefits of sustainability as the owner interprets them	Strong 7/7 *(Signals communicate both the tangible and intangible benefits of sustainability overall)* "Part of the brand's mission to source ethically and locally throughout the supply chain to the benefit of local communities and the preservation of the British textile industry", (COO, Co7)	Strong10/17 *(Signals communicate tangible benefits of sustainability overall)* "Great clothes can come with great, sustainable processes and materials. One should feel great wearing one of my dresses not only because of how it was made, but because of how it makes them look", (COO, Co9)

5.5.1 Sustainability signals reflect the owner's values system

> "*We constantly try to improve our sustainable business practice (a personal quest) by using a wide range of sustainable textiles and by manufacturing all of our products in London*", (COO, Co1).

It is universally agreed amongst participants of companies belonging to cluster Aand cluster B, that one of the main underlying reasons companies signal sustainability is because it reflects the owner's values system. In private companies intrinsically engaged with sustainability, the owner's values become part of the shared values with her company. Shared values in this sense, extends the entire group of values by creating a value chain between the owner, her/his supplies, her/his employees and stakeholders (Schmitt and Renken, 2012). Cluster B companies signal that sustainability is integrated in the owner's values:

> "*I have always been exposed to the harmony between the people and the environment. All this has made a significant impact on the person I am today. Also, my mother was always involved with community and welfare projects in my country of origin, which focused on assisting and uplifting women in rural communities. Challenging myself to develop a product range that was attractive and functional with an ethos of being ethically sustainable was my driving force*". (Head designer, Co15)

5.5.2 Sustainability is a core personal belief in how to conduct business

For people intrinsically engaged with sustainability as a business practice, sustainability is a core belief. Earlier literature reveals that entrepreneurs often create businesses that are very much aligned with their personal beliefs and values (Marketti et al., 2006). The present research shows that the owners of participant companies feel

they need to signal about sustainability as a core personal belief, and this also affects how their business is conducted:

> "*Sustainability is our core belief, this is what we do and we are not going to compromise   it because it will affect how we produce our products*" (COO, Co5)

Therefore, sustainability is a key strategic resource for all participant companies, as also seen previously, because it is also a core personal belief. It is what they do and what they and their business stand for. For both cluster groups this personal belief of how to live and conduct one's business is part of their company's signalling structure:

> *'We are actually living it. For me it is something worthwhile. It is something that you sustain and maintain; when we are up-cycling we maintain and sustain the life of the fabrics for every kind of level*" (COO, Co10).

5.5.3   Sustainability signals to reflect why the owner intrinsically engaged with sustainability

> "*I founded my company in 2005 after previously spending time in Brazil and working for Amnesty International. I started my company as part of a wider campaign, to devise an ethical new business model for the fashion trade. This model maximizes the social, environmental and financial returns for all our stakeholders*", (COO, Co6).

Participants belonging to cluster A revealed that prior to starting up their companies, the owner(s) engaged personally with an experience through which they discovered sustainability as a lifestyle and as a way of conducting business. Prior to forming their own companies,most cluster A company owners (5 out of 7) had different careers and embarked on the journey of setting up a business while working in another capacity. The majority of the participants belonging to cluster B (14 out of 17) were working as employees of other companies or training in fashion studies. They could not find employment in an environment where sustainability values were as important as business growth. Such obstacles motivated them to set up their own businesses instead.

> "*The whole reason why we set up and we started the business was there were no companies I wanted to work with, because there were not in this sector. There wasn't anything going on. So…I had to set up*" (COO, Co12).

The owner's journey to discover sustainability is also reflected in the company's signalling. In fact we find that owners of cluster Acompanies, who set up their business practice after coming across sustainability while working in a different occupation, tend to structure sustainability signals around things they learn about sustainability and around the central and important role that sustainability plays in their business strategy. For these reasons the signals they send out are more structured, coherent and specific. Cluster B owners engaged with sustainability in fashion because it happened either by chance or created a sustainable business because there was not any other firm that represented their sustainability values. The signals that explain the reasons for sustainability engagement of cluster B companies are often more obscure, and are discussed in section 5.5.4 below. We conclude, therefore, that the differences in the sustainability-engagement trajectory of owners of cluster A and B companies create heterogeneous signals in the signalling environment.

5.5.4   Sustainability signals to communicate the tangible and intangible benefits of sustainability as the owner interprets them

> "*Part of the brand's mission to source ethically and locally throughout the supply chain to the benefit of local communities and the preservation of the British textile industry*", (COO, Co7)

Participants from cluster A agree that it is the owner's choice to make sustainability an integral part of the business strategy of her/his company and also integrate it in the company's communications strategy. Such companies signal clearly and sustainability comprises a large part of their mission statement. Sustainability signals communicate the tangible and intangible benefits to them as well as their stakeholders.

However, cluster B companies do not signal their engagement with sustainability as openly as cluster A. More specifically, 10 out of 17 participants from cluster B stated that even though sustainability is an important element, the owners want to communicate it indirectly by incorporating it in the quality and design elements of their products. The quality and design elements are tangible benefits of sustainability:

"Great clothes can come with great, sustainable processes and materials. One should feel great wearing one of my dresses not only because of how it was made, but because of how it makes them look", (COO, Co9).

There are some companies cluster B however, whose owners choose not to include sustainability signals in an evident way in their communications.

"Sustainability is not something I would advertise" (Head designer, Co14).

They fear that by signalling sustainability they might compromise the high quality of their products in the mindset of consumers and buyers, as they think current signals present a cliché image of sustainability. This cliché initiates from sustainable products in the 1980s and the first half of 1990s (Siegle, 2008). It is also consistent with a new study of companies belonging to the luxury market, which advocates that their consumers get worried that "something is wrong" when established and well-known luxury brands provide information about their CSR programs (Janssen et. al., 2014).However, when companies decide not to signal directly, all benefits deriving from being sustainable –tangible and intangible- are missing from the signals.

Apparently many owners of companies participating in the present study feel the same way about sending sustainability signals, and this constitutes a novel finding in the context of the present study. Our results show that we have mixed signals instigated by the owners of values-driven companies. Some companies signal about the importance of sustainability in every aspect of their business and products, explaining both the tangible and intangible benefits of being sustainable. Some others signal sustainability indirectly through signals of quality and design, which only reflects the tangible angle of sustainability as a business practice. Some others do not signal about their sustainability strategy at all, since they worry that it will impact negatively on their brand evaluation by consumers; this would remove all tangible and intangible sustainability benefits as signals. Hence, these mixed signals create heterogeneity and information asymmetry.

5.7   Chapter Summary

In this Chapter we presented the findings of 33 semi-structured interviews from 24 sustainable fashion companies belonging to two separate cluster groups: cluster A: certified companies, and cluster B: non-certified companies. The findings of this section were based on the analysis of the collected data and used to expand our knowledge of signalling sustainability and address why companies intrinsically engaged with sustainability send out sustainability signals. Overall, both clusters signal sustainability and are compelled to do so by the following four drivers that set their signalling environment: strategic drivers, legitimacy drivers, market drivers, and owner drivers.

The data strongly indicate that there are similarities as well as differences behind the reasons that companies belonging to clusters A and B signal sustainability. In addition, the effectiveness of signals in their common signalling environment is compromised by the identified differences in these reasons.

In what follows the findings in each driver category are summarised:

(i)   SUMMARY / Strategic drivers

The findings revealed that the strategic themes that instigate the need to signal sustainability are due to a desire of achieving a competitive advantage, to define a sustainability strategy, to help set a signalling framework and to attract publicity. There were similarities and differences in opinion and practice.

Similarities in strategic drivers:

Similar reasons to signal sustainability include: to achieve competitive advantage, to explain why the conventional business model should be reinvented, and to develop the company's selected sustainability strategy. Companies from both clusters agree that sustainability is imperative for the overall performance of a company and therefore it should be signalled. They argue that sustainability signals have a real impact on a

company's signalling environment for sustainability standards. Lastly, both clusters signal sustainability because such signals help a company to obtain publicity.

Differences in strategic drivers:

Cluster A companies engage in and seem more committed to ecological sustainability, by adopting a transformational strategy and signalling about it systematically. Cluster B engage in transitional ecological strategies, and their signalling is more *ad hoc*. They seem to signal as they go along developing sustainability strategy. In a similar mind frame cluster B advocate that a transitional approach to sustainability strategy is more profitable, whereas cluster A companies did not provide any evidence on this point. Furthermore, the majority of cluster A companies and only 10% of cluster B companies, believe that their signals help towards setting up a common sustainability signalling platform that can affect the signalling environment of their sector significantly. The remaining 90% of cluster B companies offered no opinion on this point. In addition, only a few cluster A companies claimed that they have been actively participating in forming a common signalling language for fair trade with the aim of enhancing the development of a universal reporting system.

(ii)   SUMMARY - Legitimacy drivers

Legitimacy drivers derive from the company's affirmation of ethical and ecological claims, and its need to achieve assurance to sustainability programs. The findings presented similarities and differences in legitimacy drivers.

Similarities in legitimacy drivers:

When it comes to companies signalling sustainability in order to offer legitimacy to a firm about its sustainability claims, the data reveal that there are similarities in opinion and practice between the two constituent clusters. Similarities were noted in opinions from both clusters that: sustainability signals affirm a company's ethical and social claims, can help a company to become established within its industry, and allow a company competing in a specific signalling environment to differentiate itself from its immediate competition in the same signalling environment.

Differences in legitimacy drivers:

There are also dissimilarities in opinions regarding legitimacy drivers for signalling sustainability. The findings reveal that even if sustainability signals affirm a company's ethical and social claims, cluster B companies are not confident about the effectiveness of such signals. In addition there are differences in the effort from companies belonging to cluster A and cluster B respectively, on how committed they are in developing sustainability marketing strategies. Cluster A companies employ transformational sustainability strategies and their signalling goes to great lengths and detail to explain why such strategies are necessary. Cluster B companies engage mostly in transitional strategies and their signals are either presented in less detail, or there is minimal explanation. This phenomenon is also correlated with another difference: cluster A has systematic and streamlined production processes, also supported by signalling, whereas cluster B companies have less systematic production processes and signals. As production processes can be quite complex and not juxtaposed against a fully accepted set of signalling criteria to support complex processes, the outcome is information asymmetry.

(iii)   SUMMARY - Market Drivers

Market drivers involve the urgency of signals to meet the market demand for information about sustainability and the requirement to set sustainability reporting standards. The findings suggest similarities and differences in market drivers instigating sustainability signals.

Similarities in market drivers:

The sustainable fashion market presents an increased interest for sustainability marketing strategies and for sustainable products. Opinion leaders, who occupy leading positions in the fashion industry, instigate this increased interest. As a result, companies send signals to explain to their stakeholders the impact of their choices. Another market driver relating to information is the demand for transparency in processes; companies from both clusters tend to signal due to transparency reasons. They also agree that sustainability signals should address the market's information

asymmetry due to their stakeholders' limited knowledge on sustainability; hence they signal.

Differences in market drivers:

Cluster A companies view sustainability as a strategic resource and hence send signals about the high standards of their sustainable products. However, cluster B companies are not sure if sustainability should be signalled directly; they treat it as a supplemental element and thus signal it indirectly. There are also differences regarding the extent to which sustainability as a signal can reinforce a company's overall performance, with cluster A companies believing that this is possible while cluster B companies are not so sure about such benefits. As a result cluster B companies signal indirectly through the design of their products. It is worthy to note that some cluster B companies even refrain from signalling altogether.

(iv)   SUMMARY - Owner drivers

Another important finding is that company owners instigate a set of reasons that urge a private company to signal sustainability. As in the previous driver categories, the findings of the present research show similarities and differences in owner reasons.

Similarities in owner's drivers:

The main similarities identified are that sustainability signals reflect the values system of the owner, and these in turn become shared with the values of the company. In addition, sustainability signals are sent out in order to present the owner's core personal beliefs in how to conduct one's business.

Differences in owner's drivers:

The research identified differences in company owner's eco and social needs that in turn dictate how the business practices are set according to sustainability parameters; it is observed that such differences translate to differences in signalling as well. Another source for the creation of mixed signals in a given signalling environment, are the

reasons that made sustainability a priority for a company owner hence urging her/him to engage with sustainability intrinsically. As a result, some companies signal about the importance of sustainability as part of their mission statement, communicating both the tangible and intangible benefits of sustainability. Some others signal sustainability indirectly, through the quality and design of their sustainable products; quality and design are overall tangible benefits of sustainability. Furthermore, others do not signal about the sustainability attributes of their products at all, and thus remove the communication of both tangible and intangible benefits.

In the next Chapter, we discuss the research findings regarding the question of what companies signal about sustainability and the ways they signal it.

CHAPTER 6

DATA FINDINGS: WHAT COMPANIES SIGNAL

ABOUT SUSTAINABILITY AND THE WAYS THEYSIGNAL

6.0   Introduction

The focus of this Chapter is to utilise the findings of the empirical study in order to illustrate what companies signal about sustainability and the ways they signal it.In what follows the empirical data are presented in order to expand the theory of signalling sustainability and explore the similarities and differences between certified and non-certified companies.

Our findings reveal that companies send out signals that reflect the application of their sustainability strategy to their manufacturing, and also by signalling the transparency of their product manufacturing and trading processes. Furthermore they signal sustainability by presenting it as part of their corporate identity. The way they integrate their sustainability signals is through their marketing mix: product, price, place, promotion, people, Planet. This chapter summons the findings and aims to group similarities and differences in signalling between the two cluster groups of companies selected for this research: cluster A: certified companies, and cluster B: non-certified companies.

6.1   Findings–What do companies signal about sustainability

The findings suggest that currently companies send the following signals: (i) signals related to new or established sustainable manufacturing processes, (ii) signals of transparency, and (iii) signals that sustainability is part of their corporate identity (see: Chapter 4, Section 4.11: Data Structure – What do companies signal about sustainability? Table 4.13: What do companies signal about sustainability, p. 128-129)

In what follows we undertake a detailed analysis of each aggregate dimension by presenting the first order concepts of what companies signal about sustainability. Each dimension and its analysis are provided below under separate corresponding headings.

6.1.1 Signals of sustainable manufacturing processes – new or existing

Semi-structured interviews revealed that among the initial sustainability signals that a company sends out are those concerned with a company's application of sustainability in its manufacturing processes. Such signalling involves the presentation of new or existing sustainable manufacturing processes, and depends on a company's focus. The key signal here is how a company streamlines and applies sustainable manufacturing processes. Table 6.2 summarises the findings along with indicative comments pertaining to signalling of new or existing sustainable manufacturing processes. The analysis of each of the themes that comprise these findings proceeds below. The term *Strong* represents the views of the majority of participants belonging to a cluster group (51% and above); *Moderate* represents the views of some participants (25-50%).

*Table 6.2 - **SIGNALS OF SUSTAINABLE MANUFACTURING PROCESSES – NEW OR EXISTING***: *themes with indicative quotes*

THEMES	CLUSTER A: CERTIFIED COMPANIES (7)	CLUSTER B: NON CERTIFIED COMPANIES (17)
Innovation to discover new sustainable materials and create yarn	No evidence	Strong 9/17 *(New resources and processes)* "I see the impact fashion has, by its sheer global scope, on the environment. I want to be part of the change needed in the industry to look for new resources and processes that do not have a negative impact on our planet." (COO, Co8) Weak 1/17 (*Circular way of re-creating yarn*) "Closed loop means that in the example of the eco circle, they product a polyester fabric, from old clothes, 100% polyester clothing, they bring it back in, they chemically break it down, they re-claim and they re-polymerise the polyester, and they make new textile. And that goes into clothing", (Mkt Director, Co24)
Discover new production processes to reduce impact	Strong 7/7*(Exclusion of chemicals in treatment of materials)* "We also don't use AZO dyes, no heavy metals and effluent cleaning	Strong 8/17*(Refraining from using harmful components in products)* "We don't use elastics, plastics, harmful dying and metal as part of the effort to

from using chemicals	and also many garments are made by un-dyed coloured yarns" (Head Designer, Co5)	design a sustainable eco-collection" (Head Designer, Co15)
Recycling-Repurposing	No evidence	Strong 14/17*(Up-cycling and designing new products from old)* "We use top quality materials like leftovers, end of rolls, stock fabrics that would otherwise end up in landfill. We reuse treasures of fashion in order to be ethical" (Head Designer, Co20)
Organic and biodegradable materials	Strong 7/7*(Use of natural materials)* "The wool industry -you can see every bit of it, the process can be carried out entirely within the UK and it is about preserving a natural landscape. Wool is traceable, local, renewable and biodegradable. It is a natural fibre not relying on petrochemicals for it", (COO, Co5)	Strong 8/17*(Use of mixed materialsnatural and recycled fabric)* "It is all straight silks and jerseys. We are mixing new and old together more and more. We have standardized our policy. It is easier and a good way forward for us" (COO, C012) Moderate 6/17 *(Use of natural materials)* "To be sustainable it has to be wearable and biodegradable at the end of the garment's life-cycle it has to be biodegradable" (COO, Co8)
Ethically sourced materials	Strong 7/7 (*Ethical trading*) "Our product is organic and fair-traded, no nasty chemicals, it does not degrade the environment that workers work within", (Mkt Manager, Co6)"	Strong 17/17 (*Ethical trading*) "Trying to run your business with the least possible damage to the environment and towards stakeholders, you need to apply ethics, be considerate of people's rights", (COO, Co9)
Waste Management processes for end of life products	Strong 7/7*(Waste management complies with environmental regulations)* "We use sustainable resources and production methods complying to environmental regulations. We check our producers' premises for waste, and appropriate recycling through eco-mapping", (COO, Co3)	Strong 15/17 (*Commitment to a zero waste philosophy*) "Our line is inspired by Zero Waste philosophy and is up-cycled collections that embody a strong environmental commitment through design innovation, wear ability and function", (COO, Co9)

6.1.1.1   Innovation to discover new sustainable materials and create yarn

When private companies signal about sustainable manufacturing processes, our data reveal that at least half (9 out of 17) from the pool of companies belonging to cluster B, signal about new innovative materials that they are using to manufacture sustainable apparel. The main reason behind this is that they wish to be perceived as important contributors to the solution of the problem of Global Warming by introducing new types of yarn and garments that are less hazardous for the environment:

"I see the impact fashion has, by its sheer global scope, on the environment. I want to be part of the change needed in the industry to look for new resources and processes that do not have a negative impact on our planet", (COO, Co8).

One company from cluster B, states that the only way to address the problem of Global Warming is to reduce waste significantly. They are currently working on an innovation which will re-use man-made textiles (i.e. polyester fabric) in a circular way:

> *"Closed loop means that in the example of the eco circle, they produce a polyester fabric, from old clothes, 100% polyester clothing, they bring it back in, they chemically break it down, they re-claim and they re- polymerise the polyester, and they make new textile. And that goes into clothing"*, (Marketing Director, Co24)

This finding represents the view of one company (Co24), so it does not count as a considerable finding which affects the avenues by which companies signal. However, as sustainability is under constant development, it is nonetheless an interesting finding that affords a glimpse into what the future might hold for the sustainable fashion sector. At least one company, then, is rethinking along the lines of a transitional sustainability process, re-use and up-cycle of existing materials, and whether such a process can be reconfigured and become a *cradle to cradle* approach. This approach is predicated on no changes in current consumption patterns from consumers, with the problem being addressed by stopping (at least partially at first) the use of new raw materials. In principle it is an "anthropocentric approach" to sustainability (Borland and Lindgreen, 2013:174). However, if materials can be re-polymerized and an old polyester fabric can become a new one, then this approach will also have elements of "ecological sustainability" (Borland and Lindgreen, 2013:174).The company (Co24) revealed that their closed loop technology solution would also eliminate the waste management phase entirely from the product cycle. They also note that if this is not possible, then no sustainability method is truly sustainable, as at some point materials will end up in the landfill. We know from the literature that cradle to cradle approaches are possible with organic and natural products that are finite (Borland and Lindgreen, 2013), but such approaches are not currently available for synthetic materials. The solution envisioned by our participants (from Co24) is the development of a new type of raw synthetic material. This material, after its initial life cycle as a

fashion product, would be re-polymerised in order to reproduce a new synthetic textile to make a new fashion product. The company calls this process: *closed loop material cycle*. What is exciting about this novel finding is that the application of sustainability strategy thinking is developing "outside the box".

Companies belonging to cluster A did not comment about innovation in production to discover new sustainable materials to create yarn, therefore we surmise that the differences in opinions between cluster A and cluster B of innovation in production procedures to discover new sustainable materials to create yarn, creates heterogeneous signals.

6.1.1.2   Discover new production processes to reduce impact from using chemicals

In regards to introducing innovation, cluster A companies focus on excluding the use of chemicals in treating materials in order to make them look and feel attractive to buyers. This finding was also noted in a study by Schmitt and Renken (2012). Eliminating chemicals to treat yarn might not be a new practice, but a novel aspect of such processes is that they keep evolving and improving as research in the area develops, hence enabling companies to reach their ultimate goal of excluding chemicals entirely from garment treatment:

> *"We also don't use AZO dyes, no heavy metals and effluent cleaning and also many garments are made by un-dyed coloured yarns",* (Head Designer, Co5).

Cluster B companies reduce impact on the environment by refraining from using harmful components to design apparel whenever possible:

> *"We don't use elastics, plastics, harmful dying and metal as part of the effort to design a sustainable eco-collection",* (Head Designer, Co15).

Companies also stated that the fundamental importance of this innovative approach to designing products is its beneficial impact on the environment - when a garment completes its life cycle, it can be recycled more easily and with less waste.

6.1.1.3   Recycling – Re-purposing

Recycling and re-purposing is quite a common way utilised by fashion companies to engage in sustainability. It is part of the "transitional strategies" linked with engaging eco-efficient and socially conscious management (Borland and Lindgreen, 2013:179). The literature offers some examples of recycling and up-cyclingin order to create sustainable apparel(Schmitt and Renken, 2012). Our findings suggest that the strong majority of cluster B companies engage in such processes (14 out of 17 – over 80%), whereas cluster A companies have a much lower participation rate and only use recycling for additional components of their garments i.e. buttons and trimmings. Companies that engage in such production methods signal about the benefits of up-cycling "leftovers" and how redesigning new products from existing materials is a tested and efficient way of being sustainable:

> "*We use top quality materials like leftovers, end of rolls, stock fabrics that would otherwise end up in landfill. We re-use treasures of fashion in order to be ethical*", (Head Designer, Co20).

Cluster A companies do not use up-cycling and recycling as their core production methods but as supplementary production methods instead (recycled buttons, finishing, and embellishments on garments). They introduce up-cycled or recycled elements to their products when another sustainable alternative is not available:

> "*Our product involves sustainability in the product attributes (i.e. materials, cloth, dyes, buttons, finishing and trimming*", (Marketing Manager, Co2).

Therefore, they do not send specific signals about up-cycling and re-cycling either. The fact that cluster B companies signal about recycling and repurposing when cluster A ones do not, creates information asymmetry in a common signalling environment.

6.1.1.4   Organic and biodegradable materials

One of the most common ways to signal sustainability in fashion is by using organic and biodegradable materials to create garments. All cluster A companies use

naturalmaterials (natural: not man-made) and place emphasis upon this fact when signalling:

> "*The wool industry -you can see every bit of it, the process can be carried out entirely within the UK and it is about preserving a natural landscape. Wool is traceable, local, renewable and biodegradable. It is a natural fibre not relying on petrochemicals*", (COO, Co5).

This finding establishes a historical difference between cluster A and cluster B companies regarding their production processes: namely, the selection of materials that indicate whether a company is looking towards a sustainable solution within the limits of the biophysical world, that is "ecological sustainability" (Borland and Lindgreen, 2013:174).Only a moderate 6 out of 17 companies (just over 35%) belonging to cluster B use organic or biodegradable materials and signal about it.

> "*To be sustainable it has to be wearable and biodegradable at the end of the garment's life-cycle it has to be biodegradable*", (COO, Co8).

The remaining 11 out of 17 place emphasis on re-cycling and up-cycling as discussed previously, but some of them will also combine recycled materials and organic whenever possible.

Therefore, the use of organic and biodegradable materials as a signal of sustainability is a similar signal for cluster A and many companies belonging to cluster B.

6.1.1.5   Ethically sourced materials

> "*Our product is organic and fair-traded, no nasty chemicals, it does not degrade the   environment that workers work within*", (Marketing Manager, Co6)"

Ethical trading is one of the common sustainability engagement practices (Morris and et al., 2002; Schmitt and Renken, 2012) and has also been found in the present research. By signalling that their products are made using ethically sourced materials,companies from both clusters indicate their involvement with sustainability coupled with positive consequences that affect human, animal and natural life (Adams et al, 2001).

> *"Trying to run your business with the least possible damage to the environment and towards stakeholders, you need to apply ethics, be considerate of people's rights"*, (COO, Co9)

An important finding of the present research is that for all companies that are intrinsically involved with sustainability, the fields of ethics and ethically sourced materials form an integral part of their strategy. Their involvement with ethical practices is also inclusive in their signalling.

6.1.1.6   Waste Management processes for end of life products

The literature reveals that one of the initial steps that a company takes when striving to become more sustainable, is to introduce waste management processes and practices (Shrivastava, 1995; Borland and Lindgreen, 2013). Therefore, is not surprising to find that participants in this research also elaborated upon this important stage of the production process, whilst they include it in their signalling.

> *"We use sustainable resources and production methods complying to environmental regulations. We check our producers' premises for waste, and appropriate recycling through eco-mapping"*, (COO, Co3)".

Cluster B companies are also heavily involved in waste management by introducing recycling in their everyday operations -they are inspired by a zero waste philosophy. Analogously to Cluster A companies they include messages about waste management in their signalling:

> *"Our line is inspired by Zero Waste philosophy and is up-cycled collections that embody a strong environmental commitment through design innovation, wear ability and functionality"*, (COO, Co9).

They also look into ways of designing garments with few components that cannot be recycled and which would otherwise create waste, and signal about this initiative:

> *"Pieces are designed to reduce the number of components used in conventional lingerie, because each one of these creates unnecessary waste"* (Head Designer, Co15)

Our data suggest that there is one fundamental dissimilarity in the way cluster A companies understand their waste management responsibilities, when compared to cluster B companies. The former, fully comply with environmental regulations for their own waste management but are also involved in ensuring that their collaborators and producers also have such mechanisms in place. This means that, cluster A focus internally as well as externally and send out corresponding signals about it. On the other hand the main focus of cluster B companies is internal and concentrates on their own waste management processes.

6.1.2   Signals of transparency in processes

Data from the semi-structured interviews revealed that companies send out transparency signals as a way to signal sustainability. Our findings suggest that companies signal transparency by offering a thorough explanation of their business operations and by indicating that a small company has clearer processes than a larger one because they are more streamlined. In addition, the place of origin in sourcing materials, processes and manufacturing can become a signal of transparency as well.

Our findings also reveal that transparency enhances credibility and clarity in what companies do to apply sustainability. The literature suggests that clarity makes a signal stronger (Morris et al., 2002; Robinson et. al., 2011; Connelly et. al, 2011), and that a strong signal is a quality signal (Aguinis and Glavas, 2012). Table 6.3 summarises findings with indicative comments in regards to transparency signals. A more detailed analysis of each of the themes that comprise these findings proceeds below. The term *Strong* represents the views of the majority of participants belonging to a cluster group (51% and above); *Moderate* represents the views of some participants (25-50%).

*Table 6.2 - **SIGNALS OF TRANSPARENCY IN PROCESSES**: themes with indicative quotes*

THEMES	CLUSTER A: CERTIFIED COMPANIES (7)	CLUSTER B: NON CERTIFIED COMPANIES (17)
Telling the story behind the product(transparency of production cycle)	Strong 7/7 *(Company's ethical/eco mission statement is the initial signal)* "We often tell people. We will explain the story behind it" (Head Designer, Co5)	Strong 17/17 *(The production process and the origin of materials is evident in signals)* "Using natural materials, no chemicals, no animal leather or fur, local production and we pay fair

		wages to the skilled workers who work hard to create the garments", (COO, Co8)
'Walk the Talk' in terms of applying sustainability strategy and offering proof	Strong 7/7 *(Holistic approach)* "We are looking at the different locations, different suppliers and their information, how long it took to cut, how long to put together, it is all information we have available on the website and everyone can see it. How much we paid to have it made and why", (Mkt Manager, Co4)	Strong 13/17 *(One to two signals of sustainability focus)* ''Sustainability is defined first by choosing the materials, natural materials, organic. Sustainable also in the way that I'm producing locally. So, all the production is in Portugal, because I want to sell in Europe. I don't want to produce for example in Asia or outside. So, I minimize the impact on the environment and I pay fair wages", (Head Designer, Co18)
Transparency in sourcing of materials	Strong 5/7 *(Signals of transparency in sourcing materials)* "We are a small company. The dyer is 20 miles away we have one spinner in Cornwall, all the people working to make it wear for us are based in Yorkshire. We make most of it in our premises, but we are doing a batch of things. The wool industry -you can see every bit of it, the process can be carried out entirely within the UK and it is about preserving a natural landscape. Wool is traceable...We've got people working who are self-employed knitters, who knit things for us", (COO, Co5)	Strong 15/17 *(Signals of transparency in sourcing materials)* My father was a jeweller. So, he said 'why don't you get these (old pieces) and melt them and re-use them'. So, that's how it started. And the idea of having an actual piece which could turn into something else was great. He also documented it. An old necklace. He photographed the process: taking it to the place, casting it, melting it, and then making it my piece. And that was really great. It was an evolution" (Head Designer, Co14)
Transparency in treatment of materials	Strong 7/7 (*Sustainability in treatment of materials as transparency signals*) "All the fabrics sourced are dyed with AZO-free dyes" (COO, Co1)	Strong 12/17 (*Sustainability in treatment of materials as transparency signals*) "Organic, natural materials, biodegradable, natural dyes. We do everything in one place " (Head Designer, Co9)
Transparency of sustainability standards in production	Strong 7/7 (*Signals of sustainability standards in production*) "Our labels have a barcode so the buyer/consumer etc. can scan it and get information about the product; from the materials that it has been made from, to where the 'care labels' are made from and from what materials. Everything is recyclable. We are the first fashion company globally which is doing this", (Mkt Manager, Co4).	Strong 11/17 (*Signals focus on the fact that the business is a sole proprietorship or a partnership*) 'Our small size allows for completely transparent working practices' (COO, Co10)
Domestic product manufacturing (eco-	Moderate 3/7 (*Made in the UK*) "From the beginning we had a choice	Strong 11/17 (*Made in the UK / Europe*)

centric & ethical approach)	to make. How this is going to affect our business and how we are going to do it. We knew that we did not want the product to travel half way around the World. We did not want children making it. We decided from the road get go that it is going to be an ethical label as well as a design label", (COO, Co5)	"The company supports Scottish craftsmanship, sources fabrics solely from the British Isles and all pieces are produced locally in the UK", (Head Designer, Co13)
Overseas product manufacturing to support local artisan skills (ethical approach)	Strong 4/7 *(Made overseas to support local artisans)* "We create a sustainable rural livelihood is really the key of what we are about. Letting people practice traditional skills with dignity and allow them to remain within their culture, within their traditions, and so they don't have to move to the nearest city or emigrate to look for work", (COO, Co3)	Moderate 6/17 *(Made overseas to support local artisans)* "I work closely with communities that manufacture traditional crafts in Sri Lanka to develop my products. I am supporting the sustainability of artisans of two craft industries in Sri Lanka and their livelihood", (Head Designer, Co15)

6.1.2.1   Telling the story behind the product(transparency of production cycle)

> "*We often tell people. We will explain the story behind it*" (Head Designer, Co5)

For companies from both cluster groups intrinsically involved with sustainability, a key signal of transparency is to fully explain the story that supports their mission statement and their business processes:

> "*Using natural materials, no chemicals, no animal leather or fur, local production and we pay fair wages to the skilled workers who work hard to create the garments*" (COO, Co8).

Symbolic and related images of sustainable practices support such stories as revealed from the data, but also discussed in former studies (i.e. Rämö, 2011). The findings also indicate that with regards to explaining the story behind a product as a type of signal, each company tells its own different story with variations in both clarity and detail. Regarding clarity and detail this study compared the websites of all companies participating in this research and found that the majority of cluster A companies (5 out of 7) and a moderate 5 out of 17 of cluster B companies signal their story clearly and in full detail. The remaining companies in both clusters explain their story but in much lesser detail.

6.1.2.2 "Walk the Talk" in terms of applying sustainability strategy and offering proof

Just telling the story, however, is not deemed sufficient for the participants in this present study. Cluster A companies in particular, reveal through their signalling that the effort required to combine environmental sustainability solutions with ethics in order to improve their business strategy, is a work in progress and part of their everyday livelihood:

> "*We are looking at the different locations, different suppliers and their information, how long it took to cut, how long to put together, it is all information we have available on the website and everyone can see it. How much we paid to have it made and why*", (MarketingManager, Co4).

For cluster B companies "walking the talk" is about combining some environmental sustainability attributes, recycling and up-cycling as well as ethics. Once they find a solution that works for them they tend to keep at it:

> "*Sustainability is defined first by choosing the materials, natural materials, organic. I am sustainable also in the way that I'm producing locally. So, all the production is in Portugal, because I want to sell in Europe. I don't want to produce for example in Asia or outside. I minimize the impact on the environment, and I pay fair wages*", (Head Designer, Co18).

Therefore, in regards to this type of signal there are dissimilarities in the holistic nature of the sustainable livelihood that cluster A present when compared with cluster B. Cluster A signalssupport a more holistic approach as far as sustainability strategy is concerned, whereas cluster B companies usually mention one or two sustainability attributes from their strategy.

6.1.2.3 Transparency in sourcing of materials

In regards to transparency, participant companies from both cluster groups, feel strongly that the small size of their companies is an advocate to transparency in operations. The first part has to do with the origin of sourced materials. Those cluster

A companies whose operations are based in the UK, discuss the benefits that local sourcing offers in signalling transparent processes:

> "*We are a small company. The dyer is 20 miles away we have one spinner in Cornwall, all the people working to make it wear for us are based in Yorkshire. We make most of it in our premises, but we are doing a batch of things. We've got people working who are self-employed knitters, who knit things for us*", (COO, Co5).

Cluster B companies also use similar signals in regards to transparency in sourcing and about how this is achieved:

> "*My father was a jeweller. So, he said 'why don't you get these (old pieces) and melt them and re-use them'. So, that's how it started. And the idea of having an actual piece which could turn into something else was great. He also documented it. An old necklace. He photographed the process: taking it to the place, casting it, melting it, and then making it my piece. And that was really great. It was an evolution*" (Head Designer, Co14)

6.1.2.4 Transparency in treatment of materials

Similarly to materials sourcing, participant companies from both clusters believe that their small size also allows for transparency in how materials are treated. Cluster A ensure that their products are free of chemicals when treated and will signal it clearly:

> "*All the fabrics sourced are dyed with AZO-free dyes*" (COO, Co1)

The fact that often all sourcing and treating of materials tends to take place at one location (in the UK or overseas) simplifies the manufacturing process and allows transparency in signalling:

> "*Organic, natural materials, biodegradable, natural dyes. We do everything in one place*"(Head Designer, Co9)

6.1.2.5 Transparency of sustainability standards in production

> "*Our labels have a barcode so the buyer/consumer etc. can scan it and get information about the product; from the materials that it has been made from, to where the 'care labels' are made from and from what materials. Everything*

is recyclable. We are the first fashion company globally which is doing this", (Marketing Manager, Co4).

Another element of transparency is linked with how materials are sourced and which sustainability standards in production are in place. The data reveal that most participant companies belonging to cluster A signal about their transparency of sustainability standards in production: through their processes they can trace everything and send the appropriate signals to stakeholders as well.Cluster B companies focus on the fact that their small production chain allows for transparency in production and it usually involves one or two people to make a product:

"Our *small size allows for completely transparent working practices",*(COO, Co10)

The difference between cluster A and cluster B about these signals of transparency, is that the former focus on setting and signalling about transparency standards and how those are achieved, whereas the latter focus on signalling that the small size of their operation allows for transparent processes. Both signalling methods are comprehensive, but as they focus on different elements to signal transparency the signals can be heterogeneous.

6.1.2.6   Domestic product manufacturing (eco-centric & ethical approach)

 The majority of participant companies (14 out of the 24 from both cluster groups) emphasise the advantages of local production in the UK as signals of transparency. In the case where the origin of a product is within the UK, the product does not fly around the World to be made and to be transported and for these reasons is more eco-efficient:

> *"From the beginning we had a choice to make. How this is going to affect our business and how we are going to do it. We knew that we did not want the product to travel half way around the World. We did not want children making it. We decided from the road get go that it is going to be an ethical label as well as a design label",* (COO, Co5)

Making the product locally in the UK does not only result is fewer CO_2 emissions; companies insinuate that product quality goes hand in hand with transparency in processes and craftsmanship:

> "*The company supports Scottish craftsmanship, sources fabrics solely from the British Isles and all pieces are produced locally in the UK*", (Head Designer, Co13).

6.1.2.7   Overseas product manufacturing to support local artisan skills (ethical approach)

> "*We create a sustainable rural livelihood is really the key of what we are about. Letting people practice traditional skills with dignity and allow them to remain within their culture, within their traditions, and so they don't have to move to the nearest city or emigrate to look for work*", (COO, Co3)

Our data show that the place of origin of production as well as process transparency (e.g. who makes the product, how is a community supported, what type of skills are used and so on), also constitute sustainability signals.

Our data reveal that 10 out of 24 participant companies from both clusters source and manufacture their products overseas. The signals those companies send in regards to product manufacturing and sustainability is that they support the livelihoods of local communities and local artisan skills. The small size of the company allows for transparency in operations despite the fact that the production is overseas, because of the development of close relationships between the company and its manufacturing unit overseas:

> "*I work closely with communities that manufacture traditional crafts in Sri Lanka to develop my products. I am supporting the sustainability of artisans of two craft industries in Sri Lanka and their livelihood*", (Head Designer, Co15)

From the differences in findings of points 6.1.2.6 and 6.1.2.7   the author surmises that the place of origin and manufacturing is a sustainability signal irrespective of where a product is manufactured. However, cluster A explain in thorough detail and in depth what it means to manufacture either in the UK or overseas, whereas cluster B's signalling is not detailed. These differences create heterogeneity.

6.1.3   Sustainability signals are part of the corporate identity

The data suggest that one avenue that companies use to signal sustainability is to communicate it as part of their corporate identity. Two themes have been identified which constitute avenues to signal sustainability as part of the corporate identity: (i) by presenting it as part of corporate values, and (ii) by presenting the company's commitment to sustainability strategy. (See also Chapter 4, Section 4.11: Data Structure – What do companies signal about sustainability? Table 4.13, p. 128)

The finding related to corporate values is supported by an earlier study by Schmitt and Renken (2012). The findings of this study offer insight in to the pathways through which sustainability signals affect how deeply engraved sustainability is as a corporate value. The signals show the company's commitment to sustainability as part of its corporate identity. The data reveal that the engagement with sustainability, primarily instigated by the owner of a company, also shapes corporate values and affects what companies do to signal sustainability as a corporate identity. Table 6.4 belowgroups the relevant findings and includes indicative comments regarding the concept of signalling sustainability as a corporate value. The analysis of each of the themes, comprising the findings is described after the Table is presented. The term *Strong* represents the views of the majority of participants belonging to a cluster group (51% and above); *Moderate* represents the views of some participants (25-50%).

*Table 6.3 - **SUSTAINABILITY SIGNALS ARE PART OF THE CORPORATE IDENTITY**: themes with indicative quotes*

THEMES	CLUSTER A: CERTIFIED COMPANIES (7)	CLUSTER B: NON CERTIFIED COMPANIES (17)
The owner's values become signals of sustainability	Strong 7/7 *(The owner's values instigated the business becoming value driven)* "Since the start of my label (aka the company) I have been an advocate for fair trading and environmental awareness", (COO, Co1)	Strong 12/17 *(The owner's values instigated the business becoming value driven)* "After reading the book Half the Sky and visiting my sponsoring child in Cambodia, I was inspired to do more towards helping women and children in developing countries. As a mother and a woman I am responsible in helping other mothers and children in need", (Head Designer, Co23)
Sustainability is signalled as part of the company's identity	Strong 7/7 *(Sustainability is signalled as part of the company's DNA)* "We wouldn't be any other way. This is the thing. If I started again a new company I wouldn't be any different. It is part of my make up	*Strong 13/17 (Sustainability is signalled as part of the company's DNA)* "We are actually living it. It is in everything we do and say. For me it is something worthwhile", (Head Designer, Co10)

	to do things properly", (COO, Co5)	
Business plan against overproduction and overconsumption	Strong 7/7 *(Reducing overproduction becomes a sustainability signal)* "The fast fashion model is devastating: child labour, sweatshops, waste etc. We offer two seasons a year. Our business model: transparency-honesty-respect- means that we cannot continue with the current supply pace of Fast Fashion. Companies should take things slower", (Mkt Manager, Co2)	Strong 17/17 *(Waste management becomes a sustainability signal)* "I define sustainability is not to consume very much, we should not waste, don't throw clothes away after one season. Our company if we have end of roll materials we re-use them and re-make a collection", (Head Designer, Co20)
Sustainability as a signal in the corporate mission	Strong 7/7 *(Sustainability signals play an explicit role in the company's mission statement)* "Our products are: "a living blueprint for our values: people and the planet are central to everything we do". We state this on our website", (Mkt Manager, Co2)	Strong: 15/17 *(Sustainability is implicitly noted in the company's mission statement)* "I think the product needs to be sustainable. Everyone that makes it needs to be paid properly. There are synergies in everything that a company is doing. But I don't shout it", (Head Designer, Co13)
The company signals its obligation towards future generations	7/7 Strong *(Obligation towards future generations is fully stated in corporate values)* "Sustainability is something essential for the survival of the World", (COO, Co3)	Strong 15/17 *(Obligation towards future generations is part of corporate values)* "Everything you do now has an impact on the future", (Head Designer, Co21) Moderate 7/17 *(Preserving natural resources is part of corporate values)* "We are not consuming the natural resources. We are simply designing them in the first place so they can be re-purposed and re-claimed. So we are actually leasing them for a while", (Mkt Director, Co24)

6.1.3.1   The owner's values become signals of sustainability

Participants from companies belonging to cluster A emphasized that the owner's sustainability values instigated the creation and development of the company and are key signals of the company's sustainability efforts:

> "*Since the start of my label (aka my company) I have been an advocate for fair trading and environmental awareness", (COO, Co1)*

Similar conclusions can be drawn for the majority of cluster B companies; the owner's values become signals of sustainability explaining the process that instigated the sustainable direction of the business:

> "*After reading the book Half the Sky and visiting my sponsoring child in Cambodia, I was inspired to do more towards helping women and children in developing countries. As a mother and a woman I am responsible in helping other mothers and children in need'* (Head Designer, Co23).

A few participants also mentioned that sustainability is currently part of their company's values (5 out of 17 cluster B companies), because sustainability strategy was developed in tandem with the owner's exploration for alternative options and the procurement of strategic resources that would give his/her company a competitive advantage. Once sustainability was identified as a strategic resource, it was readily incorporated into the company's values and utilised to signal these values.

> "*I felt I needed to create beautiful eco luxury accessories with a minimal carbon footprint",* (Head Designer, Co22)

The findings suggest that the owners' values also become the signals that identify the company as a values-driven operation. These findings show that there is homogeneous signalling between companies belonging to cluster A and cluster B.

6.1.3.2   Sustainability is signalled as part the company's identity

> "*We wouldn't be any other way. This is the thing. If I started again a new company I wouldn't be any different. It is part of my make up to do things properly*", (COO, Co5).

Sustainability is part of the life of the owner and by extension it also becomes part of the company's distinctiveness. As a result sustainability is quite a common signal for private companies intrinsically engaged with sustainability and coming from both cluster groups. It has been found that all cluster A companies send out signals which depict that sustainability is part of the company's reason of being:

> "*We are actually living it. It is in everything we do and we say. For me it is something worthwhile*", (Head Designer, Co10).

The findings suggest that there is homogeneity in signals when they communicate a relationship of the owner's sustainable lifestyle in relation to sustainability as a business value.

6.1.3.4   Business plan against overproduction and overconsumption

Participant companies from cluster A were found to signal the benefits of "slow fashion" as a suitable business model towards addressing overproduction and overconsumption problems. The "slow fashion movement" is defined by buying less and using products for longer periods of time. Our data establish that cluster A companies signal sustainability by sending out signals against overproduction and overconsumption. Such signals primarily address the reasons why fast fashion can have devastating effects upon human livelihood and the environment:

> *"The fast fashion model is devastating: child labour, sweatshops, waste etc. We offer two seasons a year. Our business model: transparency-honesty-respect-means that we cannot continue with the current supply pace of Fast Fashion. Companies should take things slower"*, (Marketing Manager, Co2).

And then they explain that companies and stakeholders can address the devastating

effects of overproduction at all levels (ecologically and socially related):

> *"We are fair trade certified in the UK, and our mission is to offer cultural sustainability, be environmentally sustainable, to reduce CO_2 emissions, offer bio-diverse products and recyclable packaging"*, (Marketing Manager, Co3)

In short, the majority of cluster A companies communicate that by reducing overproduction there are many benefits and at many levels for all stakeholders involved. *"Reduce overproduction and enjoy the advantages"* becomes the sustainability signal.

Cluster B companies also engage in "slow fashion" as it is the compatible business practice appropriate for a company that is driven by sustainability values. However the signals they send out, against over-production and over-consumption, have a different focus from those of cluster A. Cluster B companies focus mainly on waste management that becomes the sustainability signal regarding stopping overproduction and overconsumption:

> *"I define sustainability is not to consume very much, we should not waste, don't throw clothes away after one season. Our company if we have end of roll materials we re-use them and re-make a collection", (Head Designer, Co20)*

It seems that a very clear and substantial signal to send out, has to do mainly with the way a company deals with the current problem of over-consumption. As also revealed in other findings discussed previously (i.e. 6.1.1: Signals of sustainable manufacturing processes – new or existing, 6.1.1.6 Waste Management) the majority of cluster B companies define, apply and signal sustainability through the manufacturing process of recycling, up-cycling and reusing materials; these practices comprise a partial way of tackling the current problem of over-production.

However, and despite the challenges encountered in the competitive environment of an ephemeral industry such as the fashion industry, our findings suggest that both cluster groups use signals against overconsumption and overproduction as signals of sustainability. Cluster A companies signal about holistic strategies which aim to a cradle to cradle approach of sustainability and emphasize all the eco benefits deriving from controlling overproduction and less overconsumption. Cluster B companies signal mostly the benefits deriving from waste management as a way to tackle overproduction. Our findings suggest that such differences in signalling between the two cluster groups create information asymmetry.

6.1.3.5   Sustainability as a signal in the corporate mission

In situations where sustainability is inherent in the company's raison d'être, it is then intrinsically and fully integrated in the company's business strategy. Not surprisingly, this also affects the avenues by which sustainability is signalled. Companies belonging to cluster A fully incorporate sustainability in their mission statement and use it as one of their main signals:

> *"Our products are a living blueprint for our values: people and the planet are central to everything we do". We state this on our website",* (Marketing Manager, Co2).

The majority of cluster B companies signal indirectly about their efforts as a sustainable company:

> "*I think the product needs to be sustainable, everyone that makes it needs to be paid properly. There are synergies in everything that a company is doing. But I don't shout about it*", (Head Designer, Co13).

The majority of cluster B companies state that sustainability is part of their strategy but in many occasions their signals are not explicit. They appear to only discuss their sustainability programs when specifically asked to do so. Otherwise, they seem satisfied to just mention the sustainable attributes of their products and explain their on-going journey towards trying to become a fully sustainable company:

> "*I am not saying I am an ethical brand. I am trying to do the best I can*", (Creative Head, Co14).

Our findings suggest that there is asymmetry between cluster A and cluster B companies in the directness and depth of analysis when sustainability is used as a signal in the corporate mission.

6.1.3.6 The company signals its obligation towards future generations

It is quite interesting to observe that companies also signal sustainability as an obligation towards future generations. Participants from cluster A all agree that companies have such an obligation legacy and indeed clearly signal this as part of their company's corporate values:

> "*Sustainability is something essential for the survival of the World*", (COO, Co3).

Participants from cluster B also agree with the statement above, and realize that the totality of company activities today will have a lasting impact on future generations.

> "*Everything you do now has an impact on the future*", (Head Designer, Co21)

Some companies also discussed the importance of preservation of resources. This standpoint is incorporated in their corporate values:

> "*We are not consuming the natural resources. We are simply designing them in the first place so they can be re-purposed and re-claimed. So we are actually leasing them for a while*", (Marketing Director, Co24).

Therefore, both cluster groups perceive sustainability to be part of their moral obligations towards future generations, mobilising signals that communicate their commitment to sustainability for the sake of future generations.

6.2   The ways companies signal sustainability

The findings show that private companies employ various vehicles to signal sustainability by integrating these signals into their marketing mix. The ways companies signal sustainability, are presented in Chapter 4, 4.12 Data Structure – The ways companies signal sustainability, p. 126. The findings from this study establish that the way to signal sustainability is through the integration of sustainability into the marketing mix. The structure of data from the empirical study is presented in detail below.

Integrating sustainability signals into the marketing mix is an observation which has been noted by earlier literature (i.e. Belz and Peattie, 2009). Our findings reveal that the following ways through which companies signal sustainability are: (a) through product design and quality; (b) through pricing structures; (c) through elements in the design of a retail space; (d) through PR and promotional activities; (e) through awards and certifications, and, (f) through focusing on the improvement of public knowledge of social and environmental issues. These elements constitute a definite mix of sending overt and covert signals via various aspects of the marketing mix. Overt signals involve sending out information regarding a company's positioning within its competitive environment - in the present study signals which aim to position a company within its competitive environment of the sustainable fashion sector and the fashion industry in general. Covert signals are the actions, which are evaluated by stakeholders (Herbig, 1996).

Table 6.5 below groups our most relevant findings along with indicative comments addressing how sustainability is signalled through its integration with the marketing mix. The analysis of each of the themes that comprise these findings follows. The term *Strong* represents the views of the majority of participants belonging to a cluster group (51% and above); *Moderate* represents the views of some participants (25-50%).

*Table 6.4–The ways companies signal sustainability: **INTEGRATION OF SUSTAINABILITY SIGNALS TO THE MARKETING MIX**: themes with indicative comments*

MKT MIX	THEMES	CLUSTER A: CERTIFIED COMPANIES (7)	CLUSTER B: NON CERTIFIED COMPANIES (17)
Product	The design of the product (the appeal, sustainably manufactured, fashionable, good fit)	Strong 7/7 *(Product design as key signal to high quality: bespoke, beauty, original, structure, fit)* "That part of the issue is the stigma a little bit that is attached to green, that could read as this kind of thing that you give up on something when you go green. We want green to still be sexy and fun and fashionable and all that. You are not buying us because we are eco. You are buying us because of the design", (COO, Co5)	Strong 17/17 *(Product design as key signal to high quality: bespoke, beauty, original, structure, fit)* "If you don't have good design, no one wants the product no matter how ethical it is", (COO, Co24)
	Sustainable materials as the main signal	Strong 4/7 *(High end sustainable materials as signal of affordable luxury)* *"There is no luxury or reason to offer clothes that are harmful to the environment and made unethically",* *(COO, Co4)* Strong 5/7 *(All components of a product are a type of sustainable signal)* "The product involves sustainability attributes i.e. Organic materials, cloth, dyes, buttons etc.", (Mkt Manager, Co2)	Strong 9/17 *(High end sustainable materials as signal of affordable luxury)* "What we are actually doing is more upmarket. They are very strong styles. We have a very distinct style. It is almost recognisable and it has carved a niche market", (Head Designer, Co10)
Price	Pricing structure as a signal that sustainability is affordable	Strong 4/7 *(Correct pricing to overcome the assumption that sustainability is expensive)* "We have also hit some really good price points. Everyone loves our stuff but it was a bit expensive. It is always a difficult line to draw". (COO, Co5)	Strong 12/17 *(Correct pricing to overcome the assumption that sustainability is expensive)* "Correct pricing structure is important, Without affordable prices the clothes will not sell" (COO, Co12)
	Price to reflect that sustainability is costly	Moderate 3/7 *(Sustainability is costly)* "It is a disadvantage because it puts the price up. So perhaps you do not sell as much as you would (if it weren't ethically produced and thus cheaper). But this is a decision we made at the beginning and we stuck to it the whole way" (Head Designer, Co5).	Strong 17/17 *(Sustainability is costly)* "A collection which is ethically produced, sustainable fabrics, sustainable factory, low carbon footprint when you are transporting, all

			these things can be very expensive", (Head Designer, Co21)
Retail Space	Use of recyclable materials in the design of a company's retail space	Moderate 3/7 *(The design of retail space as another form of signalling sustainability)* Old mill doubled as studio/shop, recycled furniture, mix and match furniture with gusto, wooden original floors. They have a boiler which they use for heating up water for processing yarns and also for heating of the room. Customers can come and buy products, meet the knitters and see how the whole company operates(Observation notes for Co5 retail space) Strong 4/7 (*No brick and mortar retail space*)	Moderate 7/17 *(The design of retail space as another form of signalling sustainability)* Recycled and up-cycled seats made of cardboard, old trunks, old leather sofa, wood panelling, 'laid back' - it all brings one back to the theme of slow fashion, a nurturing environment (Observation notes for Co10 retail space) Strong 10/17 (*No brick and mortar retail space*)
	Use of merchandizing materials in company's retail space to signal sustainability	Strong 5/7 (*Merchandizing materials signal that the company is values driven*) Use of branding, graphics & logos that reveal that this is a value driven brand (Observation notes from trade shows spaces)	Strong 10/17 (*Merchandizing materials signal that the company is values driven*) Use of branding, graphics & logos that reveal that this is a value driven brand (Observation notes for 10 cluster B companies) *Moderate 7/17 (*No reference to sustainability through merchandizing materials*)* Use of owner's name for branding, logo, graphics no reference to sustainability (*Observation notes from trade shows spaces*)
Promotion	Company collateral as overt sustainability signals	Strong 7/7 (*Company collateral signals sustainability*) Use of recyclable materials for business cards, brochures, labels and informational materials (Observation notes)	Strong 17/17 (*Company collateral signals sustainability*) Use of recyclable materials for business cards, brochures, labels and informational materials (Observation notes)
	Recyclable packaging as an overt sustainability signal	Strong 7/7 (*Packaging to signal sustainability*) Use of recyclable materials for packaging (Observation notes)	Strong 17/17 (*Packaging to signal sustainability*) Use of recyclable materials for packaging (Observation notes)
	Online CSR reporting as a covert sustainability signal	Strong 4/7 *(In depth online reporting in regards to sustainability program)* "Everything is on the web", (COO, Co7) Moderate 3/7 *(Less detailed online reporting)*	Strong 15/17 (*Less detailed online reporting*) "I communicate via my website, our press release for all our pieces (information about each individual piece)", (Head Designer, Co17)

		"It is more than a story telling, it is saying how this is developing over time. Sustainability is not something static and good signalling communicates that", (COO, Co5)	
	Usage of word of mouth through social media to signal sustainability	Strong 7/7 *(WOM to communicate the effort related to sustainability activity)* "When you join our company on Facebook, we engage you in sustainability. You really learn a lot, it is a lot of information to take in. We would provide you with materials and help you learn" (Mkt Manager, Co6)	Strong 17/17 *(Signalling sustainability helps with networking)* "Networking is an important part of developing a brand and costs very little money. Engage in social networking platforms where you can explore and widen your contact base", (COO, Co9)
Promotion& PR	Attendance at specialized sustainability tradeshows to signal sustainability	Strong 7/7 *(A specialized tradeshow endorses all sustainability signals)* "To be part of Estethica is difficult, it is stringent to participate. So you can trust the companies that are here. That is the really nice thing: to show at LFW is a bit of a prestige thing and it makes you quite exciting as a brand. It is a good thing to be involved in", (Head Designer, Co4)	Strong 17/17 *(A specialized tradeshow endorses all sustainability signals)* "Estethica for me means, it is essentially revolutionary for the BFC as the newest thing that has happened. And what it does is that it enables sustainable brands to be creative and participate in this arena. Something like the Estethica arena helps bring the idea of clarity to the forefront of a lot of people's minds", (COO, Co10)
	Using celebrities to signal sustainable activities	Weak 2/7 *(Celebrities to endorse sustainability signals)* "By collaborating with E for the youth collection we aimed to address to a younger target audience, and with celebrity designers we aim to show that ethical fashion is also stylish", (Mkt Manager, Co2)	Weak 2/17 *(Celebrities to endorse sustainability signals)* "By dressing celebrities you bring sustainability to the red carpet and show them that green is chic and luxurious", (Head Designer, Co13)
Awards & Certifications	Awards as covert sustainability signals	Strong 7/7 *(Awards for company recognition within industry and for legitimacy)* ''Lots of awards to give legitimacy to sustainability claims", (Mkt Director, Co3)	Moderate 8/17 *(Awards as a way to give legitimacy to sustainability claims)* "We received the Observer Ethical Award 2010", (COO, Co14)
	Certifications by featuring eco labels ascovert sustainability signals	Strong 7/7 *(Certifications are expensive)* "The problem is always those small companies don't have the budget to be certified, whereas big companies do and should use their money to be properly monitored and all this that is related", (COO, Co6). Strong 4/7 *(Eco labels are sustainability signals when they are certified)* 'What we do is on our labels as well. The story. Our whole lives are in here (the labels)' (COO, Co5)	Strong 24/24 *(Eco labels are sustainability signals whether they are certified or not)* "Signals of how they are made are prominent in the communications and marketing", (Head Designer, Co22)
	Certifications	Strong 7/7 *(Sustainability signals*	Strong 17/17 *(No emphasis on*

	by featuring fair trading labels as covert sustainability signals	*through certified fair trade labels)* "Our fair-trade and sustainability labels (and report), that gives details and statistics at the improvements we are making on all of the fair-trade principles and towards long-term goals", (COO, Co3)	*labels by certification bodies) "My labels explain where things are made. Everything is made in London, by me", (Head Designer, Co23)*
Social and Environmental issues	Educating stakeholders as a way to signal sustainability	Strong 6/7 *(Signals to educate consumers)* "Part of our mission is to "build awareness to empower consumers and producers to participate in Fair Trade and environmentally sustainable solutions", (Mkt Manager, Co2)	Moderate 3/17 *(Signals to educate stakeholders)* "We do workshops in schools, and we are looking to do a whole DVD project, which shows you exactly how to up-cycle and re-model your clothes. And for schools. We've been to New York, we've done so many different things. We did a wardrobe surgery in a gallery in NY, we lectured at Parsons, we've been to Istanbul, we did a thing over there. We are also on the textile syllabus, the A-level textile syllabus", (COO, Co10)
	Collaboration with charities to signal sustainability	Strong 7/7 *(Signal is about philanthropy being built in the sustainable business model)* "Twenty percent of the profit made on designer collaborations is given to a charity chosen by the designer while the other 80 percent will fund its growth", (COO, CO4)	Moderate 5/17 *(Signals are about collaborations with charities)* "We have collaborated with Oxfam and the whole thing with Mary Portas 'Queen of the charity shops", (Head Designer, Co10)

6.2.1 Product attributes–The design of the product (the appeal, sustainably manufactured, fashionable, good fit)

> *"If you don't have good design, no one wants the product no matter how ethical it is"* (COO, Co24)

All participant companies from both cluster groups agree that the first thing that sells a fashion product is how it looks. Sustainability comes after. Participants mentioned product attributes such as bespoke design, beauty, original structure, and fit. Buyers in the fashion industry seek a product primarily because of its appearance. Therefore sustainable fashion companies are striving to move away from an existing drawback that used to typically be associated with eco products, namely that they are not as fashionable as conventional ones:

> *"That part of the issue is the stigma a little bit that is attached to green, that could read as this kind of thing that you give up on something when you go*

green. We want green to still be sexy and fun and fashionable and all that. You are not buying us because we are eco. You are buying us because of the design" (COO, Co5).

In this sense we have a new signal for sustainability in the fashion industry shared by both participant cluster groups: design is where they integrate sustainability signals. With good design, sustainable fashion products look and are appealing; their appearance also becomes part of high design attributes.

"*Design and quality, materials: those are the first 'hook' and then sustainability*" (Marketing Director, Co3)

Elaborating on the product attributes and their importance as signals of sustainability, participants from both cluster groups mentioned the importance of design. Design is an overt signal for sustainable apparel, through its focus on aesthetics and design, which emphasises that sustainable apparel can be of superior quality than conventional fashion products. Companies from both clusters are putting all their eggs in the basket of design to emphasize this "new face" of sustainability. Consequently they focus their communication activities on design:

"*I think the communication is the style. It is the style we are creating. It stands out*", (Head Designer, Co10).

These findings suggest that companies from both cluster groups studied here, use design to signal for sustainability in the fashion industry. The main signal sent out is that sustainable fashion products are designed well, and their good design attributes such as uniqueness and fit, also become part of their high quality hallmarks.

6.2.2   Product attributes – Sustainable materials

"*There is no luxury or reason to offer clothes that are harmful to the environment and made unethically*" (COO, Co4).

The intrinsic attributes of a fashion product involve the type of materials that are used in its construction. Such product attributes, and particularly quality of materials, provide beneficial pathways through which companies can signal sustainability. Cluster A companies, focus on holistic and natural materials such as organic cotton,

ethical silk, and wool, materials integrating the message of sustainability. For them all the components of their products (environmental and ethical) are a type of signal of sustainability:

> "*There is no luxury or reason to offer clothes that are harmful to the environment and made unethically*", (COO, Co4)

Cluster B companies, on the other hand, utilise a mix of recycled, up-cycled and natural materials. Depending on the type of material used, stakeholders receive signals regarding the type of involvement a company has with sustainability, but also regarding the market segment a company is positioned in: e.g. the luxury market, the upper-middle priced segment, or the affordable fashions segment. In this respect there are a plethora of signals. Most cluster A companies, position their products in the upper-middle priced segment because they use natural and holistically sustainable materials. The author found out that 3 out of 7 companies in cluster A, and 8 out of 17 in cluster B use expensive sustainable materials such as ethical silk, and hence signal that the rarity and uniqueness of their materials qualify them to compete in the affordable designer sector.

> "*What we are actually doing is more upmarket. They are very strong styles. We have a very distinct style. It is almost recognisable and it has carved a niche market*", (Head Designer, Co10)

Cluster B companies (13 out of 17, i.e. over 75%) signal that there can be various types of sustainable materials, such as organic cotton, but also numerous others such as end of roll fabrics or fabrics that were initially destined for the land fill but were rescued and re-used to make new clothes. These materials are also sustainable but due to the fact that they pre-existed, it is found that fashion products manufactured from them are usually positioned in the upper-middle priced segment in other words in the affordable designer sector, and occasionally in the affordable fashion segment.

This study's findings suggest, therefore, that sustainable materials used in fashion products can be signals of sustainability. Depending on how materials are sourced (organically, ethically or from up-cycling and recycling), materials are used to signal two things: (i) sustainability attributes and (ii) the positioning of the fashion product as a result of the sustainable material used: either in the affordable designer segment, or

in the affordable fashion segment. These different outcomes that sustainable materials have as signals consequently generate information asymmetry.

6.2.3   Pricing structure as a signal that sustainability is affordable

Our findings also establish that pricing structures constitute another way to signal sustainability. Most companies in the present study price their products higher than similar competitive fashion products that are produced conventionally (non-sustainably). This is natural since there are many more costs involved in completely sustainable production; sustainable materials are rarer and more expensive; additionally, ethical trading is also more expensive.

This type of higher pricing justifies existing consumer belief that sustainable products are more expensive to acquire than conventional ones (Mintel, 2009), a perception that many sustainable fashion companies would like to change - the desire to change this perception is revealed by the present research. As a result, sustainable companies tend to offer some more affordable products in their collections, and such products become the 'introductory pieces" of their brand. In this way they signal that sustainable fashion can also be affordable:

> "*We have also hit some really good price points. Everyone loves our stuff but it was a bit expensive. It is always a difficult line to draw*", (Creative Head, Co5).

More specifically, 4 out of 7 cluster A companies and the majority of cluster B companies (12 out of 17 or just over 70%) believe that correct pricing structures of sustainable fashion should include affordable products. They emphasised that sustainable fashion does not need to be that expensive and that lower prices will signal that sustainability can be affordable:

> "*Correct pricing structure is important. Without affordable prices the clothes will not sell*", (COO, Co12).

The findings of this research also suggest that both cluster groups use affordable pricing structures to integrate sustainability signals. Hence, price as a signal that sustainability can be affordable offers homogeneity as a signal of sustainability between the two cluster groups.

6.2.4   Price to reflect that sustainability is costly

It is important to note, however, that offering sustainable fashion products at competitive price points is not always possible for companies. A few cluster A companies (3 out of 7) mentioned that sustainability can become a disadvantage when setting a pricing structure. High prices result in lower levels of sales:

> "*It is a disadvantage because it puts the price up. So perhaps you do not sell as much as you would (if it weren't ethically produced and thus cheaper). But this is a decision we made at the beginning and we stuck to it the whole way*", (Head Designer, Co5).

In a similar mind-frame, all cluster B companies admit that sustainability cannot be achieved with low prices, because sustainability is costly:

> "*A collection which is ethically produced, sustainable fabrics, sustainable factory, low carbon footprint when you are transporting, all these things can be very expensive*", (Head Designer, Co21)

When companies choose to introduce a lower retail price, sometimes the profit margins are very low:

> "*I had to adjust some of my existing products and find some ethically produced alternatives. To represent my sustainability views. And even if it was not good for business. For example the pearls: they were a big part of my collection. And being so expensive now, from Japan and ethically sourced and of high quality, not a lot of people will go for a piece that has a pearl. So that is the downfall, but you have to do it. You have to put it in place*", (Creative Head, Co14)

Therefore, they need a higher price structure in order to ensure the economic sustainability of the business. It seems that a higher price point, regarding to where sustainability can be signalled, reveals the true costs of sustainability. In this respect and for the first time, one company that belongs to cluster A has attempted to explain thoroughly its pricing structure (perceived to be on the high side), hoping that buyers will understand and reward it by purchasing its products:

> "*We are the first company in the world to share the full cost breakdown of its products and our mark-up*", (Marketing Manager, Co 4).

At the time that this research was conducted there were no conclusive results that could be used to establish whether this type of signal has been effective or not.

Our findings surmise that a pricing structure representative of the complexities of doing business in the sustainable way is where the true costs of sustainability can be signalled. Even though there is a relatively wide spectrum of sustainable fashion product prices, it can be stated with certainty that sustainable product prices are perceived by stakeholders to be higher than those of conventional fashion products (Mintel, 2009). Our findings confirm strongly that a higher price reflects the true costs of sustainability. To be fully sustainable is not cheap and in that respect there is homogeneity in a higher price being used as a signal to communicate the true costs involved in an ecologically and ethically produced product.

It is also worth noting that in the fashion industry, price as an indicator of how expensively a product is made, enables a product to be positioned to a respective market segment also used by conventional fashion, e.g. the luxury market, the upper-middle priced segment or the affordable fashion segment. When a sustainable company uses price as an element to position itself not only as a sustainable company, but also as part of a fashion segment also occupied by conventional fashion companies, then price as a signal has a dyadic dimension. In this instance, not only does price communicate the true costs of sustainability, but it also communicates a company's positioning as part of the general fashion industry. This dyadic dimension of price as a signal can create information asymmetry.

6.2.5   Use of recyclable materials in the design of a company's retail space

> *Old mill doubled as studio/shop, recycled furniture, mix and match furniture with gusto, wooden original floors. They have a boiler which they use for heating up water for processing yarns and also for heating of the room. Customers can come and buy products, meet the knitters and see how the whole company operates.*
> (Observation notes for Co5's retail space)

The majority of sustainable fashion companies typically sell their products either through their internet shops, as concessions or via wholesale. Just 7 out of the 24

companies in both clusters studied here, also retail through their own shop space. Through site visits, the researcher noticed that the shop transforms into another vehicle for signalling sustainability: the colours, materials, props and the arrangement of the space, reinforce the integration of sustainability in the marketing mix.

> *Recycled and up-cycled seats made of cardboard, old trunks, old leather sofa, wood panelling, laid back design - it all brings one back to the theme of slow fashion, and a nurturing environment.* (Observation notes for Co10 retail space)

Similar findings have also been discussed by relevant literature on the relationship of space associations and sustainability (EFC, 2009; Mintel, 2009; Gurau, 2008).

6.2.6   Company collateral as overt sustainability signals

As established through the analysis in the first part of the literature review of this research (Chapter 2), company collateral (branding, graphics and logo) are used to mostly communicate three things: (i) what a company is; (ii) what a company does, and, (iii) how a company does it - (Smith, 1996). Such signals are overt since they aim to send out information regarding the company's positioning within its competitive environment (Herbig, 1996). The present research has identified associations with sustainability through signals of company collateral (cluster A: 7 out of 7 companies, and cluster B: 17 out of 17 companies). All companies use recyclable materials for their business cards, brochures, labels, price tags and all informational materials. Therefore the use of collateral can be a homogeneous signal of sustainability.

Even though such associations have been documented by previous researchers, we find that there are some differences as far as the choice of brand name is concerned. There are companies from both clusters which choose not to signal sustainability with their brand name. In particular, 2 out of 7 companies belonging to cluster A and 7 out of 17 belonging to cluster B, use the name of the owner as their brand name. The rest of the companies (5 out of 7 from cluster A, and 10 out of 17 from cluster B) use brand names that reminisce themes related to sustainability: ecology, ethics, nature and so on. We can conclude, therefore, that we expect heterogeneity in signalling in relation to the uses of brand names to signal sustainability.

6.5.7   Recyclable packaging

> *When I asked about the packaging, they laughed and said that there is no way*
> *one can be an ethical company and not use a recyclable packing. It is*
> *simply done this way. Some   companies even encourage their customers to*
> *recycle the packaging materials and send them back to the company, or use*
> *it for something else,* (Observation notes for Co22)

The use of recyclable materials for packing and packaging is universal amongst cluster A and cluster B, who expressly state that they would not even consider using non-recyclable materials for packing their products.

6.2.8   Online CSR reporting as a covert sustainability signal

The literature reveals that the reasons behind creation and publication of CSR strategies by companies are mostly due to these strategies being: (i) an action instigated by an internal interest (Moore et. al., 2012; Aguinis and Glavas, 2012), (ii) they are responding to stakeholder pressures (Sharma and Henriques, 2005), or (iii) they have a desire to operate more sustainably (Aguinis and Glavas, 2012; Aguilera et al., 2007). We note that these reasons mostly apply to large corporations, as considered in the literature. By focusing on private companies, however, our study shows that private companies use explicit CSR reporting signals to explain their sustainability programs. The worldwide web is the perfect medium; it is inexpensive and allows a company to openly provide detailed analyses. We found that 4 out of 7 Companies from cluster A use the web for CSR reporting, and post everything regarding their sustainability programmes on their websites as explicitly as possible.

> *"Everything is on the web", (COO, Co7)*

The remaining 3 out of the 7 cluster A companies, and almost all cluster B companies (in fact 15 out of 17), report on their sustainability programmes, but their signals are not as explicit. The former group report their journey and the methods of development of their sustainability programmes, but do not always go into depth with supporting facts and figures:

> *"It is more than a story telling, it is saying how this is developing over time. Sustainability is not something static and good signalling communicates that", (COO, Co5).*

This statement also explains how sustainability is signalled:

> *"I communicate via my website, our press release for all our pieces"*, (Head Designer, Co17).

We note, however, that 2 out of our pool of 24 companies admitted that they are not succeeding in sending sustainability signals effectively online. The reason behind this appears to be a confusion and uncertainty on their behalf, regarding what may be important to say and how to communicate it:

> *"We do not succeed in communicating it well on line. We seriously need to fine tune the message"*, (Creative Head, Co10).

This statement follows the lines of previous literature where it was noted that managers are often confused on how to use signalling to match a business strategy with CSR and create value for their company (Yuan et al., 2011; Dickson et al., 2012). We can conclude, therefore, that some companies use online CSR reporting explicitly to signal sustainability and their signals are detailed and offer depth. Most choose to use CSR online signals implicitly: they refer to their story and how they are sustainable but do not offer depth. A minority of companies is still confused on how to use CSR online reporting to signal CSR strategy. Our findings allow us to surmise that the way sustainability signals are sent out through the use of the worldwide web are dissimilar in their depth and the way they explicitly present and analyse a company's strategy. This fact creates information asymmetry.

6.2.9   Usage of word of mouth through social media to signal sustainability

The use of social media is quite popular with companies in engaging their stakeholders with their sustainability strategy; this engagement shows commitment and involves people in a dialogue with the company (Tseëlon, 2011). The present study also confirmed this commitment to engagement by the companies participating in this study. The study revealed, however, that the outcome of signals through social media

is affected depending on the way sustainability is applied. Cluster A companies engage with their stakeholders by communicating their journey towards becoming sustainable. They signal about sustainability more explicitly, and among other signals they provide information about their lifestyle, their farmers, certifications, labelling, and new projects they are immersed in. The strategic use of social media aims to differentiate them from conventional companies, and so the signals they send out are covert (Herbig, 1996). The differentiating factor is sustainability.

> *"We are communicating the effort. This is a very conscious decision on our part"*, (Marketing Manager, Co2).

The aim to communicate via social media is to help their stakeholder learn as much as possible about sustainability and the changes it provides to a whole ecosystem. Such signals can help to narrow the knowledge gaps between senders and receivers in the whole signalling environment:

> *"When you join our company on Facebook we engage you in sustainability. You really learn a lot, it is a lot of information to take in. We would provide you with materials and help you learn"* (Marketing Manager, Co6)

 Therefore we argue that with the use of social media cluster A companies signal their engagement with sustainability but also contribute to the development of the overall knowledge regarding sustainability issues within their signalling environment.

Cluster B companies on the other hand use social media to promote their products and collections for their own networking purposes and to expand their contact base:

> *"Networking is an important part of developing a brand and costs very little money. Engage in social networking platforms where you can and explore and widen your contact base"* (COO, Co9).

Therefore, our findings reveal that signals through social media are used to either differentiate a company from conventional firms through sustainability, to communicate a company's efforts, to contribute to narrowing the gap of information asymmetry in a signalling environment, and also to network. The different aims for

sustainability signals channelled through social media between cluster A and B can therefore create heterogeneity.

6.2.10   Attendance in specialized sustainability tradeshows to signal sustainability

One of the criteria used to select which companies would participate in this study was their participation in one of the two major sustainability-focused fashion tradeshows in the UK: Estethica and Ecoluxe. Both of these tradeshows take place twice a year during London Fashion Week and are supported by the British Fashion Council. The findings of the present study demonstrate that a specialised tradeshow of this calibre is an endorsement to participant companies' sustainability strategy. It is also a signal of sustainability, as both tradeshows have strict sustainability selection criteria that companies need to have met prior to applying to exhibit there:

> "*To be part of Estethica is difficult, it is stringent to participate. So you can trust the companies that are here. That is the really nice thing: to show at LFW is a bit of a prestige thing and it makes you quite exciting as a brand. It is a good thing to be involved in*", (Head Designer, Co4).

By taking part in such tradeshows they signal that they can be trusted as sustainable companies. These tradeshows are also endorsed by the British Fashion Council and consequently participation also helps companies to strengthen their signals by putting out the message that in addition to being sustainable they also offer products at the forefront of high fashion design standards (as expected from tradeshows such as London Fashion Week):

> "*Estethica for me means, it is essentially revolutionary for the British Fashion Council as the newest thing that has happened. And what it does is that it enables sustainable brands to be creative and participate in this arena. Something like the Estethica arena helps bring the idea of clarity to the forefront of a lot of people's minds*", (COO, Co10).

In summary, then, the signals that are enabled by specialised tradeshows offer legitimacy in sustainability claims, endorsement as far as design is concerned, and help a sustainable company to be put on the fashion radar by its stakeholders.

Tradeshows in regards to signalling sustainability offer a homogeneous platform for signalling sustainability.

6.2.11 Using celebrities to signal sustainable activities

"By collaborating with E for the youth collection we aimed to address to a younger target audience, and with celebrity designers we aim to show that ethical fashion is also stylish"(Marketing Manager, Co2)

Our findings reveal that using celebrities to support sustainability activities is not something that a private company often utilises as a promotional signal. In both cluster categories, very few companies had the opportunity to collaborate with a celebrity to promote their sustainability strategy and status. One avenue appears to be the development of a collection in collaboration with a celebrity, in order to engage the brand with a different target group. Another way mentioned is to offer clothes to a celebrity to wear at a public event:

"By dressing celebrities you bring sustainability to the red carpet and show them that green is chic and luxurious" (Head Designer, Co13).

No company from the two clusters had any comments as to whether this type of promotional activity had an impact on the improvement of their sustainability signals.

6.2.12 Awards as covert sustainability signals

"We obtain, lots of awards to give legitimacy to sustainability claims", (Marketing Director, Co3)

Sustainability awards as signals enable companies to communicate their sustainability actions. When companies signal about such awards, they emphasize their commitment to sustainability and allow it to be evaluated by their stakeholders. For the purposes of this research, awards were used as part of the selection criteria for company participation in our study. Awards were also used to differentiate participating companies and hence classify them as part of cluster A or cluster B.

Our findings show that an award as a signal is universally utilized by cluster A companies (7 out of 7) and moderately so by cluster B companies (8 out of 17). Sustainability awards offer legitimacy to company sustainability actions and are an important element in a company's signalling arsenal:

"We received the Observer Ethical Award 2010" (COO, Co14)

The remaining 9 of the 17 cluster B companies have not obtained any sustainability awards. However, participants from those companies do not think that awards are necessary in offering legitimacy to their sustainability programs, or that sustainability awards constitute a useful signal for their activities.

Our findings suggest that awards are a signal of sustainability. However it is not a signal all sustainable companies use and therefore heterogeneity in the signalling environment is instigated since awards are not widely used by all companies operating within a common signalling environment.

6.2.13 Certifications by featuring eco labels as covert sustainability signals

"What we do is on our labels as well. The story. Our whole lives are in here(the labels)", (COO, Co5)

Eco certified labelling was used as a criterion by the researcher to classify participating companies into cluster A and cluster B. Certifications in the form of eco labels are covert signals. When eco labels are owned by certified certification bodies i.e. Organic Exchange, they can be used to offer legitimacy to the claims made by a product's label. For example, Organic Exchange certifies that a product is made out of certified organic cotton (EFC, 2009; Mintel, 2009). Only 4 out of 7 companies from cluster A have such labels from official eco certification bodies and none from cluster B. Cluster B companies utilise labels to indicate the materials used to make their garments, i.e. reclaimed organic cotton, re-cycled silk and so on. Such labels are not issued byany official certification body, however. Therefore there is information asymmetry to indicate environmental sustainability as far as labels are concerned. Some companies use certified labels and some do not in signalling sustainability. We

also have heterogeneity due to the presence of various labels currently used by sustainable companies; some are from official certification bodies and some created by the companies themselves.

Through our interviews we discovered that the reason that only a small number of private companies are certified by official certification bodies is directly related to the high cost involved. Sustainability is costly in that sense:

> "*The problem is always those small companies don't have the budget to be certified, whereas big companies do and should use their money to be properly monitored and all this that is related*", (COO, Co6).

The findings suggest that an eco label is a signal of sustainability and is used widely. The difference is whether it should be a certified label or not. Some companies believe in certified labels while others do not. The result is heterogeneity in the types of eco labels used as signals.

6.2.14 Certifications by featuring fair trading labels as covert sustainability signals

> "*Our fair-trade and sustainability labels (and report), that gives details and statistics at the improvements we are making on all of the fair-trade principles and towards long-term goals*", (COO, Co3)

Labels that identify the location of product manufacture and whether this is carried out under ethical conditions are found in products of all participant companies from both cluster groups. In our comparisons of the ethical labels used by two cluster groups, we found that signalling is heterogeneous. Similarly to eco labelling, cluster A companies use fair trade labels that are certified by official certification bodies such as the Fairtrade Foundation. Certification provides them with legitimacy regarding the ethical signal being sent. On the other hand, cluster B companies use labels that indicate the place of product manufacture, but these labels are not officially certified. There are mainly two reasons why cluster B companies do not get certified labels: the first is due to the cost involved, and the second is that they do not think that certified labelling is necessary in order to make ethical claims since their production is on the British Isles. Cluster B believe that the fact that their manufacturing is local to the UK,

this automatically qualifies their products as sustainable, and hence do not need another certified label to prove it:

> *"My labels explain where things are made. Everything is made in London, by me", (Head Designer, Co23)*

Labels indicating whether a product has been ethically made is widely used by companies intrinsically engaged with sustainability, regardless of whether the label has been approved by a certified body or not (this is in direct analogy with eco labels). As noted above, high costs prevent companies from obtaining officially certified labels, however many believe that certifications are not necessary to legitimise sustainability claims despite of the cost. The result is heterogeneity in the types of fair trade labels used as signals of sustainability.

6.2.15 Educating stakeholders as a way to signal sustainability

Our findings suggest that there is a major difference between cluster A and cluster B companies regarding their interest in developing signals for educating the average consumer in sustainability matters. Cluster A companies seem to use every opportunity available to participate in workshops, seminars and conferences to discuss the importance of sustainability and contribute towards educating the public and building awareness:

> *"Part of our mission is to "build awareness to empower consumers and producers to participate in Fair Trade and environmentally sustainable solutions", (Marketing Manager, Co2).*

This does not often happen with cluster B companies. Only 3 out of the 17 engage in such programmes or workshops:

> *"We do workshops in schools, and we are looking to do a whole DVD project, which shows you exactly how to up-cycle and re-model your clothes. And for schools. We've been to New York, we've done so many different things. We did a wardrobe surgery in a gallery in NY, we lectured at Parsons, we've been to Istanbul. We did a thing over there. We are also on the textile syllabus, the A-level textile syllabus" (COO, Co10)*

We have established that there is considerable asymmetry between cluster A and cluster B companies regarding their signalling sustainability through educational programmes. Sources of this asymmetry include the frequency of organisation of such programs; participation in focussed workshops is mainly carried out by cluster A companies and by some cluster B companies.

6.2.16 Collaboration with charities to signal sustainability

> *"20% of the profit made on designer collaborations is given to a charity chosen by the designer while the other 80 % will fund its growth"* (COO, CO4)

For cluster A companies philanthropy is built into their sustainable business model and is also part of their signalling. All participant cluster A companies enhance their programs by collaborating with major or minor charities and send explicit signals on their websites and through social media related to these collaborations. They revealed that this is part of their fundamental characteristics as values driven companies. Our research found that a number of cluster B companies are embarking on collaborations with charities, and indeed are signalling about them:

> *"We have collaborated with Oxfam and the whole thing with Mary Portas 'Queen of the charity shops"*, (Head Designer, Co10)

 Presently this is only a moderate participation with only 5 out of 17 participants (i.e. less than 30%) are getting involved with charities.In conclusion, then, we find that there is asymmetry when companies signal sustainability through collaborations with charities. This type of information, when available, is usually found on a private company's website.

6.3   Chapter Summary

In this chapter we presented the findings of 33 semi-structured interviews from 24 participating sustainable fashion companies belonging to two separate cluster groups of private companies intrinsically engaged in sustainability: cluster A: certified companies and cluster B: non-certified companies.The findings in this section were

based on the analysis of collected data, and a major aim of the analysis is to expand current knowledge of signalling sustainability.

Overall, both clusters send out the following types of signals: signals of sustainable manufacturing processes –new or existing; signals of transparency in processes; and signals of sustainability as a core part of the corporate identity. The way they signal is by integrating sustainability signals in their marketing mix.

The findings reveal that there are similarities and differences between clusters A and Bin both the content of their sustainability signals as well as the ways the signal. These findings are summarised next.

(i)   SUMMARY - Signals of sustainable manufacturing processes – new or existing

Similarities in signals of sustainable manufacturing processes:

Both cluster groups signal that they do not use chemicals and harmful components to treat garments because of the beneficial impact of such practices on the environment: when a garment completes its life cycle, it can be recycled more easily and with less waste. Furthermore, they signal that they use organic and biodegradable materials and that they also apply ethics as an integral part of their strategy.

Differences in signals of sustainable manufacturing processes:

The research established that cluster B companies use innovation in production procedures to discover new sustainable materials to create yarn, whereas cluster A create yarn by relying on eco and cradle to cradle methods. This difference in production results in differences in signals of sustainable manufacturing processes. Cluster B companies signal about recycling and repurposing while cluster A do not, hence generating another difference in signalling. In addition, waste management and the way companies approach it also creates signal variability: cluster A apply waste management programs internally as well as when working with external partners and send out corresponding signals about it. The main focus of cluster B companies is

internal and consequently they mainly concentrate on their own waste management processes.

(ii)   SUMMARY- Signals of transparency in processes:

Similarities in signals of transparency in processes:

Participant companies from both cluster groups feel strongly that the small size of their company advocates transparency in operations when it comes to sourcing materials, as well as transparency in how materials are treated. In addition, the companies that make their products locally in the UK insinuate that product quality goes hand in hand with transparency in processes and craftsmanship.

Differences in signals of transparency in processes:

In order to evaluate the clarity and detail in signals of transparency in processes, the websites of all companies participating in this research were compared. It was found that the majority of cluster A companies signal their story clearly and in full detail, whereas most cluster B companies explain their story but in much lesser detail. In addition, signals from cluster A companies support a more holistic approach as far as sustainability strategy is concerned, whereas cluster B companies usually focus on one or two sustainability attributes from their strategy. In addition, cluster A companies focus on setting transparency standards first before signalling how this type of transparency is possible. Cluster B companies base their transparency signals upon the fact that the small size of their operation allows for transparent processes. Finally, the place of origin and manufacturing as a signal of transparency transforms into a heterogeneous sustainability signal irrespective of which cluster a company belongs to: half of participant companies are advocates of local UK production as a signal of transparency, while the remaining half are advocates of overseas production and their support of local artisanal communities there.

(iii) SUMMARY - Sustainability signals as a core part of the corporate identity

Similarities in sustainability signals as a core part of the corporate identity

When signalling reflects the owner's values, this study's findings strongly suggest that we have homogeneous sustainability signals between companies belonging to cluster A and cluster B. When signals communicate the correlation of the owner's values with sustainability as a business value, these signals become entrenched as part of the corporate identity. In addition to similarities as a core part of the corporate identity, both cluster groups signal their commitment to sustainability as their moral obligation towards future generations.

Differences in sustainability signals as a core part of the corporate identity

Cluster A companies signal about holistic strategies which aim towards a cradle to cradle approach of sustainability. They also emphasize all the eco benefits deriving from controlling overproduction and less overconsumption. Cluster B companies signal mostly the benefits deriving from waste management as a way to tackle overproduction. In addition the findings suggest that there is also asymmetry between cluster A and cluster B companies in the directness and depth of analysis when sustainability is used to signal corporate identity.

(iv)   SUMMARY - Integrating sustainability signals in their marketing mix

Similarities in integrating sustainability signals in their marketing mix

A new way to signal sustainability in the fashion industry that is shared and used widely by both participant cluster groups is design. Sustainable fashion products need to look appealing. Their appearance becomes part of high design attributes and therefore the main signals sent out are that sustainable fashion products are of high design and quality. Another way to signal sustainability is through affordable pricing structures when possible to communicate that sustainability can be also affordable. At the same time, however, higher prices (in comparison to equivalent fashion products which are manufactured conventionally) communicate the true costs involved in an

ecologically and ethically produced product. Other similar ways companies of both clusters use to signal sustainability as part of their marketing mix include: theuse of recyclable materials in the design of a company's retail space and for company collateral and for packaging. Last but not least, participating in sustainability focused tradeshows is another way to signal sustainability which also offers homogeneity.

Differences in integrating sustainability signals in their marketing mix

Sustainable materials used in fashion products can be commonly used as a way to signal sustainability, but can also position a fashion product in the general fashion industry. These different outcomes that sustainable materials can have as signals may consequently generate information asymmetry. Another difference in signalling outcome is when price is also used in the same dyadic manner; with a specific pricing strategy a company can position itself not only as a sustainable company but also as part of a fashion segment in which conventional fashion companies also compete. Another difference between companies is that a brand name is not always used to signal sustainability.Other differences in signals are found in how companies use online CSR reporting: most cluster A companies signal sustainability explicitly with signals offering details and depth. Most cluster B companies signal CSR online implicitly: they mention the story and journey of how they became sustainable but do not offer details. A similar pattern also applies when companies use social media to signal sustainability: Cluster A companies use social media to communicate their efforts towards becoming sustainable, to network, and to narrow down the gap related to sustainability issues that currently exists between senders and receivers of sustainability signals. Cluster B companies use social media mainly to network and grow their businesses and as a cheap alternative to advertising. Differences when integrating sustainability signals in the marketing mix were also noted in the use of awards, eco certifications and ethical certifications; it was noted that such types of certifications are not widely used by all companies operating within a common signalling environment. Similarly, the present study established that there is considerable asymmetry between cluster A and cluster B companies when they signal sustainability through educational programmes because such activities are not organized on a regular basis. There is also asymmetry in the way that companies signal

sustainability through collaborations with charities; note that such collaborations are mostly engaged in by companies belonging to cluster A.

In the next Chapter the findings from the present research study will be juxtaposed with findings from the literature review (from chapters 2 and 3) and the research questions. The discussion leads to the development ofthe signalling sustainability process model, and how it contributes to expand the literature of signalling sustainability.

CHAPTER 7

DISCUSSION:

THE SIGNALLING SUSTAINABILITY PROCESS

7.0 Introduction

The chapter begins by presenting and analysing the reasons behind similarities and differences in signalling of certified and non-certified companies intrinsically engaged with sustainability. The analysis and discussion of these findings lead to the development of a revised signalling sustainability process model. This is presented and discussed at the end of this chapter.

7.1 Discussion

The present study researched the following questions: (a) Why do private companies intrinsically involved with sustainability signal sustainability? (b) What do they signal about sustainability? And (c) the ways they signal sustainability? Of particular interest are the avenues through which the above-mentioned activities enable companies to obtain a signalling fit, but also on what prevents achievement of a signalling fit. Throughout this chapter, when referring to companies we explicitly assume that they are intrinsically engaged with sustainability as is clearly the case for our cluster A and cluster B companies.

By adopting a qualitative research design it was possible to gain rich insights into the research questions. The data reveal that there are similarities (consistent reasons) and differences (inconsistent reasons) between the types of signals that companies use but also the reasons behind and the nature of these signals. Similarities and differences affect the quality of signals and how they respond to existing signalling challenges. We reiterate that the industry setting of this research is the sustainable fashion sector in the UK.

7.2   Why companies signal sustainability? New findings

Considering the first question -"why do private companies intrinsically engaged with sustainability signal sustainability?" - our findings suggest that in a similar signalling environment companies signal sustainability as a result of strategic, legitimacy, market and industry drivers. These drivers were presented extensively in Chapter 5. The findings suggest that there are similarities and differences regarding why sustainability is signalled, and these often arise depending on which cluster group a company belongs to (cluster A: certified companies, or cluster B: non-certified companies). Juxtaposing the findings with extant literature, the following section now discovers how they advance our understanding in relation to drivers for signalling sustainability.

7.2.1   Similarities in the reasons for signalling sustainability

Both cluster categories as represented in the selection of companies participating in this research, reveal that there are similarities in their reasons for signalling sustainability. Some of the common reasons urging private companies to signal sustainability that arose from the present study, mirror findings noted in literature concentrating on dissimilar signalling environments belonging to different industry sectors. Table 7.1 highlights the findings of this study regarding common reasons that instigate signalling sustainability; as shown these reflect similar findings in previous CSR and sustainability literature.

Table 7.1   Similarities between certified and non-certified companies in why they signal sustainability

STRATEGIC DRIVERS	Achieve CA	i.e. Walls et al, 2012 ; Campbell, 2007
	Explain why the conventional business model should be reinvented	Belz and Peattie, 2009
	Signalling sustainability helps with the overall performance	i.e. Mallin et al, 2012 ; Eccles et al, 2011, Gao et al., 2008
	Increases visibility and attracts publicity	Pollock and Gulati, 2007; Belz and Peattie, 2009
LEGITIMACY DRIVERS	Signalling affirms a company's ethical and social claims	Moore at al., 2012; Castelló and Lozano, 2011
	Helps a company become established within its industry	Walker and Wan, 2012
MARKET DRIVERS	Opinion leaders instigate increased interest and demand for sustainable products	i.e. Connelly et al., 2011 ; Kotler and Keller, 2009
	Market demand for transparency instigates	Walker and Wan, 2012,;

	signalling sustainability	Vandekerckhove et al., 2007
	Signalling sustainability to address current information asymmetry in response to different stakeholder needs	i.e. Adams et al, 2001; Robinson et al., 2011; Narayanan and Manchanda, 2009; Sharma and Henriques, 2005
OWNER DRIVERS	Signalling sustainability to reflect owner's values system	Murillo and Lozano, 2006 Schmitt and Renken, 2012
	Signalling sustainability to reflect sustainability as a shared value	Schmitt and Renken, 2012
	Sustainability signals are initiated by the owner's beliefs of how to run a business	Marketti et al., 2006

The common reasons why companies signal sustainability can be summarised as follows: When it comes to strategic drivers, companies reasoning behind signalling sustainability initially comes from the fact that sustainability signals can offer a competitive advantage (Walls et. al., 2012). By offering an explanation as to why the conventional business model should be reinvented and sustainability should become a focus, companies enhance their performance (Mallin et al, 2012; Eccles et al, 2011, Gao et al., 2008) and their visibility (Pollock and Gulati, 2007) through attracting more publicity (Belz and Peattie, 2009).

As far as legitimacy drivers are concerned, because sustainability signals affirm companies' ethical and social claims (Belz and Peattie, 2009), they also help them to get established within their industry (Walker and Wan, 2011). In that way companies respond to market drivers by responding through signals to an increase in demand and interest for sustainable products by opinion leaders and, by extension, to the demand for knowledge in such issues by the general public (i.e. Connelly et al., 2011; Mintel 2009; Kotler and Keller, 2009) especially for transparency from companies (Walker and Wan, 2012; Vandekerckhove et al., 2008). Thus, by signalling sustainability some of the existing information asymmetry about sustainability issues within the market is addressed (i.e. Adams et al, 2001; Robinson et al., 2011; Narayanan and Manchanda, 2009) and directed to fulfil different stakeholder needs (Sharma and Henriques, 2005).

Owner drivers for signalling sustainability mainly reflect owner values and companies' shared values (Schmitt and Renken, 2012), and owners' beliefs on how to run a business (Marketti et al., 2006). These findings add to the current literature of CSR and sustainability, through the prism of signalling theory to reinforce the opinion of academics and practitioners that sustainability is a continuous journey which leads

to further developments in CSR (Walker and Wan, 2012) and by extension to sustainability signalling.

The present research also revealed *novel* findings pertaining to the reasons why companies signal sustainability. These new findings contribute to both the literatures of signalling and sustainability, and expose new elements where there is common ground in the reasons why companies choose to signal sustainability. As such they respond to the gap in the literature identified by Campell (2007), which called researchers to further understand why companies engage in CSR for reasons besides economic development.

Table 7.2 below shows reasons, not yet covered by existing literature, as to why companies signal sustainability:

Table 7.2 | *Similarities between certified and non-certified companies in why they signal sustainability / New findings*

STRATEGIC DRIVERS	Signalling helps to develop a company's selected sustainability strategy (transformational or transitional) Sustainability signals have an impact on a company's signalling environment
LEGITIMACY DRIVER	Allows differentiation of a company within a similar signalling environment
MARKET DRIVER	Signalling explains to stakeholders the impact of their choices

(i)   Signalling helps to develop a company's selected sustainability strategy (transformational or transitional)

This first new reason behind signalling sustainability finds all participating companies in agreement. Sustainability signals help companies positively in the development of their overall sustainability strategy which can be either transformational or transitional (Borland and Lindgreen, 2013). In order to send out comprehensive signals, companies need to streamline their sustainability strategy and put "all their ducks in a row". The majority of the companies that participated in this research study revealed that signalling also helps them with restructuring their selected sustainability strategy.

(ii)   Sustainability signals have an impact on a company's signalling environment

A new finding emerging from strategic drivers which urge companies to signal sustainability is that sustainability signals help build market awareness regarding the existence of sustainable companies in a specific industry. Participants from both cluster groups commented that as the volume of signals increases, the market awareness of their niche (sustainable fashion) also increases. This finding relates to visibility (Dentchev, 2004), and also suggests that signalling helps boththe individual company as well as thewhole sector; it makes sustainability signals part of a defined signalling environment.

(iii)   Allows differentiation of a company within a similar signalling environment

The findings indicate that signalling sustainability helps a company in its journey to become established within its industry, mainly because it offers legitimacy. Sustainable fashion companies participating in the present study use sustainability signals to compete against mainstream fashion companies. At the same time, by signalling sustainability they differentiate themselves from other companies that are also competing in the niche of sustainable fashion; to differentiate themselves, they follow a specific sustainability approach, which they communicate through signals.

(iv)   Signalling explains to stakeholders the impact of their choices

Another new finding, in relation to the market drivers' category that instigate signalling sustainability, is the fact that companies use sustainability signals to explain to stakeholders the impact of their choices. In this way, companies respond to the increased interest for information on sustainability and send comprehensive signals in order to inform stakeholders of their choices.

7.2.2   Different reasons for signalling sustainability – new findings

Another interesting finding of the present study is that companies are also driven by different reasons for signalling sustainability. Differences primarily exist between companies belonging to the two different cluster groups (cluster A: certified vs. cluster

B: uncertified). However, there were also differences regarding the reasons of signalling sustainability among companies belonging to the same cluster group. This was more evident amongst companies from cluster B. It is noteworthy that most of such different reasons are new findings not yet discussed in the literature.

Table 7.3 below highlights the different reasons (new findings) as to why companies signal sustainability:

Table 7.3   *Different reasons between certified and non-certified companies in why they signal sustainability- new findings*

STRATEGIC DRIVERS	Transformational strategy allows for systematic signalling vs. Transitional strategy creates more *ad hoc* signalling Transitional approach is signalled as a profitable strategy vs. not signalled Signals help towards setting a common signalling platform for sustainability vs. signals do not help to set a common signalling platform Signals help set a common signalling language for fair trade vs. signals do not help to set a common language for fair trade
LEGITIMACY DRIVERS	Sustainability strategy is streamlined with detailed signalling vs. not streamlined
MARKET DRIVERS	Sustainability should be signalled directly as it is a strategic resource vs. sustainability should be signalled indirectly as it is supplementary to strategy Sustainability signals reinforce performance vs. uncertainty whether sustainability signals reinforce performance
OWNER DRIVERS	Signalling addresses different stakeholder needs and knowledge vs. does not address different stakeholder needs and knowledge Differences in owners' eco and social priorities instigate differences in signalling amongst companies Owner's direction dictates whether sustainability signals should be direct or indirect

(i)   Transformational strategy allows for systematic signalling vs. Transitional strategy creates more ad hoc signalling

A new finding of this study reveals that the clarity of sustainability strategy structures also supports systematic signalling or creates *ad hoc* signalling. In other words, signals reveal that some companies use systematic and comprehensive sustainable methods and others use sustainability methods that are less structured. Also, if a method is clear then its clarity is also reflected into its signalling. The findings suggest that at large (with some few exceptions) cluster A companies, which mostly engage with structured transformational sustainability strategies, present coherent and clear sustainability signals as compared to sustainability strategy signals coming from companies

belonging to cluster B. As a result, the signalling of cluster A companies aims to also make their sustainability strategy comprehensive to their stakeholders, whereas many cluster B companies merely signal that they are sustainable companies without signalling their backup strategy in full detail. In addition, cluster A companies' strategies become more comprehensive because they use more systematic and explanatory signals. As their strategy is clear to them, their signals to their stakeholders are also clear. On the other hand, cluster B companies' signalling is *ad hoc* and considerably less explanatory. As their approach to sustainability strategy is less streamlined, their signals are more vague and obscure. These differences in signalling may affect the effectiveness of signalling sustainability within a similar signalling environment.

(ii)   Transitional approach is signalled as a profitable strategy vs. is not signalled

Different signals also stem from whether a transitional approach to sustainability is a profitable strategy for private companies and entrepreneurs. Cluster A companies advocate that sustainability is most profitable for the long term when it is an eco-efficient and transformational strategy. Transformational strategy is adopted by a company when it understands that it can only develop to a certain extent and within the constraints of the natural environment (Borland and Lindgreen, 2013). Cluster B companies, advocate that the future of successful sustainable businesses is primarily based on waste management operations, namely recycling, up-cycling, reducing raw materials and regulating the way materials are disposed of. Such methods are classified as transitional because they are anthropocentric, linear and cradle to grave approaches (Borland and Lindgreen, 2013).

All participating firms adhered towards an eco-centric mindset. Such a mindset focuses on sustainable development, recognises the limited resources of the Planet and looks into a model where development takes place with this reality in mind (Borland and Lindgreen, 2013). Yet, differences emerged in their business strategies towards the type of ecological sustainability that they focus on. Cluster A companies, for example, base their strategy and their signals upon eco and cradle to cradle approaches which they advocate are the most profitable in the long run. Cluster B companies send out a different signal: a sustainable company can be profitable when it engages in a

waste management approach.Therefore, profitability as a signal to incorporate sustainability in one's business model is viewed differently between cluster A and cluster B companies.

(iii)   Signals help towards setting a common signalling platform for sustainability vs. signals do not help to set a common signalling platform

Another new finding is that private companies belonging to cluster A believe that they play a very important part in helping to set a signalling platform for their signalling environment. We know from previous literature that the current CSR language at its current depiction does not serve the purpose of effective signals for entrepreneurs and private companies (EFC, 2009). The findings of the present study show that some private companies (cluster A) see themselves as key actors in helping to define a signalling platform for sustainability related activities for smaller scale companies. The findings reveal that some private companies (belonging to cluster A) are trying to create a common language to communicate their sustainability ethos and credentials. This language is still in development, however, and is facilitated by globally recognised tradeshows such as Estethica and Ecoluxe in London, for example, where all like-minded companies can come together. Such initiatives help private companies to use the aforementioned tradeshow platforms as a common signal for excellence in sustainability within their sector. In contrast, the majority of cluster B companies do not think that they can influence their sector to develop a signalling platform. Such differences in conviction instigate heterogeneity in opinions of whether signalling sustainability from private companies can help create a signalling platform or not.

(iv)   Signals help set a common signalling language for fair trade vs. signals do not help to set a common language for fair trade

Another new finding reveals that private companies signal sustainability because they have been involved in developing accreditation and sustainability standards in relation to ethical and fair trade practices. A few companies that participated in this research take an active part in a number of committees involved in helping the fashion industry set sustainability standards in relation to fair-trading. Two particular standards that private companies offered input for are: the GEO fair-trade project, and the creation of

the 10 fair trading principles of the Fairtrade Foundation. As such standards can be used by other companies – small or large- and can be communicated as signals the author concludes that private companies help to develop a sustainability signalling platform. Their support and expertise is important to other companies of a small size (private) whose processes are easily streamlined, but also to bigger firms who wish to include sustainability measures in their existing processes. However, since the companies which signal sustainability in order to set a common signalling language for fair trade only belong to cluster A, and not cluster B, this reason for signalling creates heterogeneity.

(v)   Sustainability strategy is streamlined with detailed signalling vs. not streamlined

Participants stated that signalling sustainability affirms their companies' sustainability strategy, and suggested that by designing sustainability signals, a private company makes its sustainable strategy more systematic and comprehensive. Cluster A companies mostly use sustainability signals to streamline their sustainability strategy because signalling offers this opportunity. As sustainability in strategy can be a complex and difficult journey (Baden and Harwood, 2012) by trying to explain processes through comprehensive signals, such processes are reviewed thoroughly and are being updated. This journey simplifies all the actions in order to apply sustainability in strategy: firstly, in the minds of the signallers (the private companies) in order to build their confidence (Pollock and Gulatti, 2007); secondly, these actions become signals for external stakeholders. As the strategy is broken down into smaller steps in order to be explained later as signals, this process also results into detailed signalling of the company's sustainability strategy. All these points find participants from cluster A in agreement.

However, this research also showed that respondents working for some companies belonging to the cluster B category, do not necessarily support the opinion that signals help streamline sustainability strategy. Therefore, they signal sustainability in a less structured way. These findings demonstrate that there is heterogeneity on how

signalling reflects the depth and width of streamlining sustainability strategy in a similar signalling environment.

(vi)   Sustainability should be signalled directly as it is a strategic resource vs. sustainability should be signalled indirectly as it is supplementary to strategy

Differences also exist in the way companies engaged with sustainability apply it as a strategic resource. Some companies (cluster A and a few from cluster B) integrate sustainability in every aspect of their business structure and their products, and this is reflected by the direct and clear communication signals that they send out to stakeholders. In cases where sustainability methods are not applicable, the companies will send out signals of what they are doing to overcome such obstacles. Some other companies (primarily from cluster B) integrate sustainability indirectly through the design process of their products, and communicate sustainability subtly through signals regarding quality of sustainable materials and the design of garments. They do not communicate sustainability explicitly but they send out some signals indicating that their products are sustainable/ethically made. The signals they send out focus on one or two sustainability elements that they excel at. In situations when their sustainability credentials could be challenged by external stakeholders, they choose not to communicate at all. Some other companies (from cluster B) however, choose not to send out any sustainability signals even though sustainability is part of their intrinsic strategy. The main reason is a certain lack of knowledge on how to communicate sustainability in a way that does not adversely affect their brand image in front of consumers. These differences in the type of signals sent out –direct or indirect - create heterogeneity and information asymmetry.

(vii)   Sustainability signals reinforce performance vs. uncertainty whether sustainability signals reinforce performance.

This study revealed conflicting findings on whether sustainability is viewed as a constructive signal that affects company performance. Companies that supported the view that sustainability is a constructive signal advocated that they signal sustainability mainly to obtain a competitive advantage, something that also positively affects their performance. This finding expands the literature in relation to

sustainability and its role as a strategic resource, because it reveals that sustainability signals can help company performance. This finding also adds to the literature and reveals that sustainability as a strategic resource affects positively the overall performance of a company (i.e. Mallin et al., 2012; Eccles et al., 2011; Gao et al., 2008). However almost 60% of the participants of this study(both clusters) revealed that even though sustainability is a strategic resource for their companies, they are not sure whether sustainability signalling affects their performance or not. It is interesting to note that such uncertainty mirrors a gap identified in recent literature, which notes that managers are not sure how to quantify the effectiveness of CSR (Moore et al, 2012).

(viii)   Signalling does not address different stakeholder needs and knowledge vs. addresses different stakeholders needs and knowledge

Almost over half of the participants in this research study (both clusters) revealed that sustainability becomes challenging to signal because their stakeholders do not understand it. The literature has noted differences in the knowledge of and interest in sustainability, of stakeholders, employees or suppliers (i.e. Adams et al., 2001; Robinson et al., 2011).When there are differences in knowledge and interests, different signals are usually used to address different signalling needs commensurate with the level of knowledge of the receiving parties – this is something that large corporations have been implementing (Sharma and Henriques, 2005). However the findings of this study show that in the signalling environment of sustainable fashion companies, different signalling needs and levels of knowledge are not addressed, and different signals to address the different needs of their different stakeholders are usually not used by cluster B companies. The exception are signals to suppliers sent by very few companies mostly belonging to cluster A which are tailor made to address their needs and knowledge. Therefore, cluster B companies signal sustainability in the way they think is best, hoping that their signals will be understood by the receiving parties. The fact that there is heterogeneity in the level of knowledge and ability of receivers to understand the signals that are sent to them (Connelly et al., 2011) may weaken the strength of sustainability signals and compromises fit.

(ix)   Differences in owners' eco and social priorities instigate differences in signalling amongst companies

Owner drivers create differences in the reasons behind why companies signal sustainability. The differences begin from the reasons why a company was set up as sustainable in the first place. Despite belonging to a similar signalling environment, there are differences in signalling between companies whose owner's eco and social priorities were the primary reason to create a sustainable company (cluster A companies), as compared with companies whose owner engaged with sustainability circumstantially (cluster B companies). In other words, cluster A owners sought sustainability while B were circumstantial.

The data revealed that the owners' priorities to discover sustainability, sets the tone of the company's sustainability signals. Companies which were set up to reflect the owners eco and social needs send out more coherent and specific signals, while companies whose owner engaged with sustainability accidentally or because of lack of a better alternative, send out more obscure signals. As a result we have heterogeneous signals creating information asymmetry.

(x)   Owner's direction dictates whether sustainability signals should be direct or indirect

Analogously to the owner's eco and social priorities, the owner's direction sets the tone of whether sustainability signals should be direct or indirect. Differences in the directness of signals also encourage heterogeneous signalling.

7.3   What do companies signal about sustainability?

In relation to the second research objective –"what companies signal about sustainability?" our findings suggest that companies send out sustainability signals in order to explain to stakeholders how they apply sustainability in manufacturing, how transparent their processes are, and how sustainability is part of their company values. These findings were presented extensively in Chapter 6 where it was shown that there

are similarities and differences in the way sustainability is signalled by companies in the two clusters (certified and non-certified).

7.3.1   Similarities in what companies signal about sustainability

The present study showed that there are some consistent signals sent out by both cluster categories in communicating sustainability. Several of these similarities in companies' actions to signal sustainability are extant by previous literature in dissimilar signalling environments such as larger firms or firms belonging to different sectors. Table 7.4 highlights the similarities in what companies signal about sustainability against relevant literature.

Table 7.4 Similarities between certified and non-certified companies in what they signal about sustainability

SIGNALS OF SUSTAINABLE MANUFACTURING PROCESSES	Do not use chemicals and harmful components Design garments that are not harmful to the environment, less waste, recyclable Apply ethics Waste management is applied internally and externally vs. waste management applied internally	Schmitt and Renken, 2012 i.e. Belz and Peattie, 2009 Morris and et al., 2002, Adams, et al, 2001 Shrivastava, 1995; Borland and Lindgreen, 2013
SIGNALS OF TRANSPARENCY IN PROCESSES	Telling the story behind the product "Walk the talk" to ensure clarity of signals Local production ensures transparency	Rämö, 2011 Connelly et. al, 201 Perez-Batres et al, 2010
SUSTAINABILITY SIGNALS AS A CORE PART OF CORPORATE IDENTITY	Signals reflect owner values and shared company values Signals reflect commitment to sustainability as a moral obligation	Schmitt and Renken, 2012 Rämö, 2011

Similarities in actions to signal sustainability as found in the present study but also noted in previous literature, include the following sustainability signalling:

Primarily companies focus on sending out signals that they are applying sustainable manufacturing processes; they signal that they are not using harmful chemicals and components (Schmitt and Renken, 2012) because it makes the recycling and waste management of products more challenging (Belz and Peattie, 2009). They also signal that they are applying ethics in every aspect of the production process (Morris and et al., 2002, Adams, et al 2001), and that they are using waste management processes

(Shrivastava, 1995; Borland and Lindgreen, 2013). They also apply transparency in their signals: most companies in both cluster groups explain the story behind the production of their product, a signal which is noted in other examples of other companies operating in different industries (Rämö, 2011), and by becoming a live example of applying sustainability principles in order to ensure clarity, such as many others do (Connelly et al, 2011). Another similarity in signalling, amongst the companies that choose to produce their products locally, is the signal that local production assures transparency in operations (Perez-Batres et al, 2011). Last but not least, companies project signals which reflect that sustainability is part of the owners' and the company's shared values, a signal also noted by earlier literature (Schmitt and Renken, 2012), as well as signals that reflect the company's commitment to sustainability because of its moral obligation towards society and to future generations (Rämö, 2011).

7.3.2   Differences in what companies signal about sustainability – New findings

The present study also reveals *new findings* in what companies signal about sustainability. Until the present study, differences in what companies signal about sustainability were only noted when these belonged to different signalling environments and different industries. The present study confirms that signalling sustainability discrepancies can also exist in a similar signalling environment such as the sustainable fashion sector in the UK.Table 7.5 presents the study's results on the most usual differences in sustainability signals from companies operating inasimilar signalling environment. Such results have not yet been noted by existing literature.

Table 7.5 Differences in what companies (certified vs. non-certified) signal about sustainability – new findings

Signals of sustainable manufacturing processes	Using innovation to create new sustainable materials vs. relying on ecological methods Recycling used as a main signal vs. recycling not used as main signal
Signals of transparency in processes	Strong transparency signals vs. less detailed transparency signals Signals of a holistic approach to sustainability vs. signals of one to two attributes of sustainability First set transparency standards to processes and then signal vs. not setting transparency standards but focusing on the small size of company Made in the UK vs. made overseas
Sustainability signals as a core part of corporate identity	Signals of holistic approach to sustainability vs. waste management approach Differences in directness and depth of signals

(i)   Using innovation to create new sustainable materials vs. relying on ecological methods

The research established that many cluster B companies use innovation in production procedures to discover new sustainable materials to create yarn (recycling, up-cycling, closed loop production, waste management), whereas cluster A companies create yarn by relying on ecological methods such as producing new yarn from organic and natural sources. These differences in production methods result in variation in what the companies signal about their sustainability strategy.

(ii) Recycling used as a main signal vs. recycling not used as a main signal

The research also established that the majority of cluster B companies use recycling or up-cycling as their main production procedure whereas cluster A companies use recycling for additional components of their garments i.e. finishing. Cluster B companies signal about the benefits of recycling and how redesigning new products from existing materials is one of the most efficient ways of being sustainable, whereas cluster A companies do not focus on the element of recycling as the primary point to signal.

(iii)   Strong transparency signals vs. less detailed transparency signals

Another new finding from the present study is the fact that companies belonging to a common signalling environment have differences in the depth of their signals when they discuss transparency in their operations.

One would expect that companies that are intrinsically engaged with sustainability should be able to signal in detail and depth the way sustainability in manufacturing is applied. The results of the present study reveal, however, that this expectation is far from reality. Many companies (cluster A) use explicit signals to explain how their manufacturing processes are applied, but there are others (mostly cluster B) that are not so explicit in their explanation. The ones that do not use explicit signals usually only communicate the sustainability credentials of their products, and do not say anything if components of their products are not sustainable. The reasons why there

are such discrepancies in the depth of sustainability signals are described in the points (iv) and (v) that follow below.

(iv)   Signals of a holistic approach to sustainability vs. signals of one to two attributes of sustainability

The present study reveals another new finding; cluster A companies approach sustainability in a holistic way. Their sustainability strategy focuses on both the environment and ethics and when procedures are not in place to meet all their sustainability expectations they give the full story of what they are aiming to do and what they are doing to actually achieve it. Cluster B companies are more loose in their sustainability strategy, focusing instead on one or two attributes of sustainability and keeping signals vague on what steps they are taking to improve their operations. These different approaches to sustainability also result in different signals; cluster A signalling is detailed and specific, cluster B is *ad hoc*.

(v)   First set transparency standards to processes and then signal vs. not setting transparency signals but focusing on the small size of the company

It is not surprising to discover that cluster A signals are detailed and specific. The reason is that they first implement transparency standards and then signal. Such standards are clearly signalled, with specific sections on companies' websites explaining their journey to become sustainable, a similar pattern to what conglomerates intrinsically engaged with sustainability do as well i.e. Nike, Adidas and Marks & Spencer, which send signals on how they introduce sustainable raw materials into their product mix (Marx, 2008). Cluster B signals are more casual, reflecting a less standardized attitude towards their sustainability strategy. One of the key signals that they send out to assure their stakeholders that they are sustainability-focused, is the small size of their operation. To them, their small production chain, when used as a sustainability signal, becomes a signal for transparency in operations supporting sustainability strategy.

(vi)   Made in the UK vs. made overseas

The place of origin as a signal of sustainability has been noted by extant literature (i.e. Gurau, 2008; Rios et al, 2006) and was also uncovered by the present study. What constitutes a new finding is the following: when companies intrinsically engaged in sustainability and operating within a similar signalling environment use domestic production as a signal, this has a very different outcome from those who signal that they favour overseas production. The present study revealed that about 50% of the companies (both clusters) advocated that domestic production becomes a signal for an eco-centric and ethical manufacturing; therefore domestic production is a good way to achieve eco-efficient and transparency in manufacturing. The remaining 50% of companies advocate through signals that their overseas production becomes a signal for ethical trading practices and encouragement of local artisan skills; these primarily constitute an anthropocentric approach and perhaps not the most eco-efficient. The place of origin as a sustainability signal has different meanings and connotations, and hence it is a cause for heterogeneity in signalling structures in a similar signalling environment, irrespective of which cluster a company belongs to.

(vii)   Signals of holistic approach to sustainability vs. waste management approach

Another new finding emerging from the present study is that within a similar signalling environment there are two approaches to apply sustainability: through a holistic solution or via waste management.

A holistic approach, in which cluster A companies engage, involves signalling to reflect a holistic sustainability strategy: signals are clear and simple and reflect a well thought out and executed sustainability strategy which is applicable at all the stages of the business operation. The companies that have a holistic signalling approach seem to be as close as possible to being truly sustainable and "tick all the boxes". They strategize in applying the sustainability model at all levels of the business operation, from sourcing raw materials to the finished product, engage in ethical trading, are on top of their waste management programs and are looking into ways to improve their sustainability strategy even more.

A waste management approach, which is quite popular to the majority of cluster B companies, entails signalling to reflect a transitional strategy, and as the present study reveals it focuses primarily on waste management solutions. When transitional strategy occurs, companies choose to focus on one or two attributes and introduce sustainability solutions for these attributes alone. As seen from the present study most cluster B companies (about 80%) focus on waste management solutions (re-cycling, up-cycling and re-purposing).

(viii)   Differences in directness and depth of signals

Another new finding is differences in the directness and depth of signals. These differences are evident from signals sent out via the web and social media. The present study has shown that companies may be sending out various signals regarding their sustainability strategy, however the signals' clarity is determined from their explicitness and how straightforwardly they are presented. The majority of participant companies (mostly from the cluster B category) do not go into any great depth in explaining their sustainability claims on the web and social media. These variations in the depth of analysis of signals reinforce the information heterogeneity that exists in regards to signalling sustainability.

7.4   The ways that companies signal sustainability

The findings of the present research are consistent with those of existing literature that observe that companies integrate sustainability signals into the marketing mix. In chapter 6, section 6.5 those elements of the marketing mix that integrate sustainability signals were extensively analysed. These are: a) signalling sustainability through product design and quality; (b) signalling through pricing structures; (c) signalling sustainability through elements in the design of a retail space; (d) signalling through PR and promotional activities; (e) signalling sustainability through awards and certifications, and; (f) signalling sustainability by focusing on the improvement of public knowledge on social and environmental issues.

Previous insights from extant literature, on the ways that companies signal sustainability were also confirmed by the results of this study. In particular, our

findings provide support for the use of a higher pricing structure to communicate that sustainability is costly (Mintel, 2009), the use of recyclable materials for the design of a retail space and company collateral (Rios et al., 2006; Gurau, 2008), the use of labels to explain the sustainability attributes of products, and the participation of companies to sustainability focused tradeshows (Vandekerckhove et. al., 2008; Walker and Wan, 2012).

The present study also mirrors extant literature on the following differences in the ways that companies signal. These include: the use of explicit vs. implicit online CSR signals (Aguinis and Glavas, 2012; Oster, 2010; Gurau, 2008), the sporadic use of educational programmes to further stakeholder knowledge regarding sustainability issues (Connelly et. al., 2011; Kirmani and Rao, 2000), and some occasional collaboration schemes between companies with charities close to their sustainability angle to reinforce their sustainability message (Mintel, 2009).

7.4.1 Similarities in the integration of sustainability in the marketing mix – new findings

What is quite interesting is that there are several new findings regarding how companies integrate sustainability into their marketing mix. These findings constitute new ways to signal sustainability and contribute to furthering our knowledge in this topic. Table 7.6 depicts these exciting new findings regarding common ways of signalling sustainability.

Table 7.6 Similarities between certified and non-certified companies in integrating sustainability signals in the marketing mix – new findings

Integration of sustainability in the marketing mix	Product design as a signal of sustainability Product quality as a signal of sustainability Affordable prices / sustainability is affordable

(i)   Product design as a signal of sustainability

In the fashion industry, a product means nothing if it is not appealing. This is what we learnt from the participants of this research. One of the most important signals to communicate sustainability in fashion is that sustainable apparel, through its focus on aesthetics and fit, is of superior design compared to conventional fashion products. Design becomes the "new face" of sustainability in the fashion industry.

(ii)   Product quality as a signal of sustainability

Similarly with design, product quality also becomes a signal of sustainability. Product quality is linked to materials quality. Companies advocated that quality materials can be made according to both transitional and transformational methods and they are an integral part of signalling the superiority of a sustainable product compared to a conventional one.

(iii)   Affordable prices / sustainability is affordable

Historically, companies have been building the associations that sustainable processes and materials are more expensive than conventional ones through higher price points (Mintel 2009; EFC, 2009). Higher prices reflect the true cost of sustainability since there are many overheads involved in producing a product sustainably (Mintel, 2009). However, at least half of the participants in this study believe that the fact that sustainable products are historically more expensive than conventional ones deters consumers from buying them. In that sense, a higher price is a counterproductive signal. For this reason, they offer some more affordable products in their collections which play the role of "introductory pieces" to their brand. These "introductory pieces" are of similar pricing structure with many conventional fashion products found on the high street and constitute a new way to signal sustainability. However the fact that sustainable products are considered expensive by consumers (Mintel 2009), while there are many sustainable products that are actually quite affordable, maintains an information asymmetry status quo, where pricing structures are used as signals of sustainability. Companies are currently trying to change this status quo.

7.4.2 Differences in the integration of sustainability in the marketing mix – new findings

There were also new findings regarding differences in how sustainability is integrated in the marketing mix. Table 7.7 outlines these new findings regarding differences between companies in the ways that they signal sustainability:

Table 7.7 Differences between certified and non-certified companies in sustainability signals – New findings

Integration of sustainability in the marketing mix	Design has a dyadic nature as a signal of sustainability: to signal sustainability and to position a company in a general industry Price has a dyadic nature: to signal sustainability and to position a product within a general industry Brand name not always used to signal sustainability Differences in the use of social media Using certifications vs. not using certifications

(i)   Design has a dyadic nature as a signal of sustainability: to signal sustainability and to position a company within a general industry

Despite the fact that design is a homogeneous signal that associates sustainability with high product attributes, just under 50% of companies from both cluster groups (3 from cluster A and 8 from cluster B) in the present research reveal that it also communicates the company's positioning within the arena of the overall fashion industry. This dyadic nature of design allows these companies to show how elaborately a product is made, and also enables it to be positioned to respective market segments that are historically only occupied by conventional fashion such as the affordable designer sector, as classified by the"fashion pyramid" (Doeringer and Crean, 2005).

(ii)   Price has a dyadic nature: to signal sustainability and to position a product within a general industry

Similarly to design, the present study presents a new finding regarding the price element of the marketing mix. Prices have a dual role: initially they signal that a product is sustainable, as analysed previously, but they are also used as a market segmentation tool. Companies intrinsically engaged with sustainability realised that

they are not only targeting the "eco-conscious" consumers but the average consumers as well. According to the "fashion pyramid" (Doeringer and Crean, 2005: 356), in the conventional fashion industry segmentation occurs as follows: A fashion product is positioned as "designer" when it is competing in the luxury segment; "better fashions" when it is competing at higher price and quality range; "bridge fashion", when it is competing with higher quality fabrics and a somewhat higher price and shorter product cycle; and "basic fashion" when a fashion product is competing with more middle of the range types of fabrics, design and prices. The present study noted that sustainable fashion in the UK uses its pricing structure in the same way as it signals about the product type: designer, better fashion, bridge fashion or basic fashion. Since companies intrinsically engaged with sustainability use price as a signal in two ways, namely (a) to indicate sustainability attributes of the products, and (b) to indicate where their products compete within the "fashion pyramid" market segment, two different sets of signals are sent out. One to communicate the company's involvement with sustainability; this is primarily used by cluster A companies. The second way price is used is to indicate that the sustainable product competes in a particular bracket of the "fashion pyramid", which is used by both cluster A and cluster B companies. These differences in connotations of what pricing can mean as a signal also add to the existing information asymmetry that currently exists.

(iii)   Brand name not always used to signal sustainability

According to existing literature a fashion company often uses its brand name and logo to communicate that it is sustainable (EFC, 2009). However, the present study revealed that only about half of the participant companies (both clusters) use a brand-name and logo which establishes connotations with sustainability - the remaining 50% do not. The findings of this study therefore, suggest that brand name is a somewhat commonly used signal in the signalling environment of private companies intrinsically engaged with sustainability.

(iv)   Differences in the use of social media

As also analysed extensively in chapter 6, cluster A use social media to signal about sustainability programs, and to offer new knowledge about sustainability to

stakeholders thus narrowing the information gap that currently exists in the signalling environment. They also use social media to network within their industry. The use of social media by cluster B is more linear; they primarily use them to network, as it is a cost effective medium. These differences create information asymmetry in a similar signalling environment.

(v)   Using certifications vs. not using certifications

The fact that there are numerous certification labels and certification bodies is not a new finding in the literature (i.e. EFC, 2009). Yet, this study revealed that in a similar signalling environment not all companies find the use of labels and certifications necessary and useful in endorsing their sustainability strategy and legitimising their actions.

The present study showed that of the private companies intrinsically engaged in sustainability only cluster A companies use labels or certifications, which only represents 30% of the whole sample of companies which participated in this research. It also revealed that for cluster B companies such labels and certifications are not necessary factors to either compete in the sustainability sector or to gain legitimacy for their sustainability claims. The present study also showed that labels and certifications are thought by cluster B respondents to be most necessary for conglomerates and firms of a larger size, to assure the public of their engagement with sustainability. The fact that cluster A companies use labels and certifications and cluster B companies do not, is possibly the result of the former mimicking what the larger companies are doing in the absence of a specific signalling platform for private firms signalling in a similar signalling environment. It could also reflect that in a signalling environment where financial resources are limited, certifications and labels are not the first thing private companies spend their money on since such certifications are very costly, for instance. This variation in the use of certifications and labels constitutes another factor for information heterogeneity.

7.5   The Signalling Sustainability Process Model

The findings of this study lead to the development of a revised signalling process model (initially presented in Chapter 2). The revised signalling process model draws on signalling theory, in conjunction with findings from the sustainability literature. It also introduces the effects of the signalling environment upon signalling sustainability as these emerge from new findings presented in this study. In addition, it shows the factors that instigate the reasons why companies signal sustainability and what avenues companies use to signal it. The revised model also shows the reasons and the ways that sustainable business strategy of a private company can be affected through signalling sustainability. Last but not least, the revised signalling process model determines what constitutes an effective sustainability signal in order for a company to achieve a signalling fit. The initial signalling process model (depicted in Chapter 2, section 2.2.2 / Signalling Theory) presented the two-way process between the transmitter of the signal (the company) and the receivers of the signal (stakeholders), within any given signalling environment. The signalling process model illustrates that if sustainability signals sent by the transmitter are interpreted by the receiver in the way that the transmitter intended them to be, then the signal is effective and signalling fit is achieved. An effective signal is homogeneous, and there is information symmetry between sender and receiver, while signalling fit is obtained. If, however, the signal is misinterpreted by the receiver, then ineffective signalling occurs with the negative consequences of heterogeneity, information asymmetry and partial signalling. Negative consequences result in negative outcomes and costs for a company, coupled with no real benefits for stakeholders.

The literature review of chapters 2 and 3 helped the author identify that the signalling environment can be a key factor for signalling sustainability, and set the next stage of the research study – the empirical stage - in order to identify the reasons behind sustainability signalling, to determine the types of sustainability signals sent and to explore the avenues through which companies signal sustainability. The findings of the empirical study informed the revised signalling sustainability process that follows.

The findings of this study suggest that the reasons why companies signal sustainability are the result of strategic, legitimacy, market and industry drivers. Companies next

proceed to signal the ways they apply sustainability through their manufacturing processes, by having transparency in their operations, and by showing that sustainability is part of their corporate values. All these messages are conveyed by incorporating sustainability signals throughout their marketing mix, sometimes directly and sometimes indirectly. The present study reveals that even in the case of companies belonging to a similar signalling environment, whether a company is certified or not affects the type, the quality, the directness and the depth of its sustainability signals. As a result, these conditions also affect the fit of sustainability signals within a signalling environment.

Figure 7.1 below depicts graphically these relationships in the signalling sustainability process:

Figure 7.1: The Signalling Sustainability Process Model
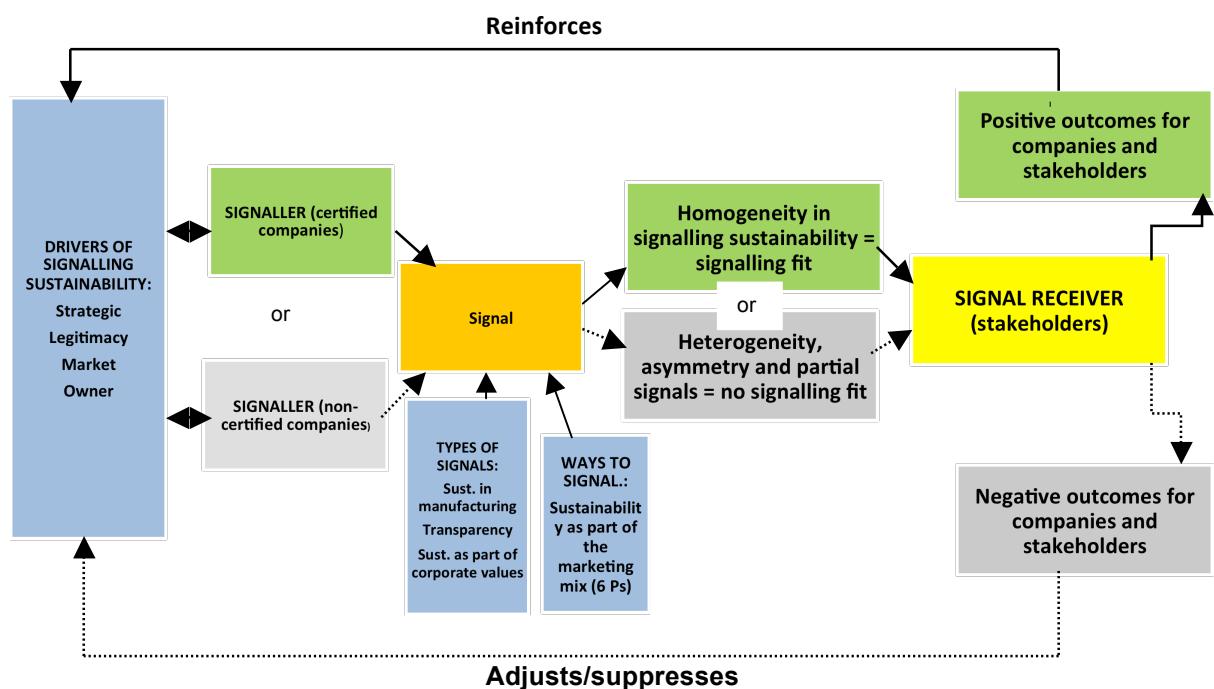
What the signalling sustainability process model demonstrates is that in a similar signalling environment strategic, legitimacy, market and industry drivers affect the signalling strategy of a company (the signaler). In other words, these drivers are co-dependent and affect the types of sustainability signals sent (sustainability in manufacturing, transparency, part of the corporate values), and how they are signalled

within the marketing mix of a company. These factors are directly related to the cluster a company belongs to, namely certified or non-certified. For companies intrinsically engaged with sustainability, the sustainability criteria, which determine a company's cluster, become even narrower than what the literature has historically suggested. This is due to the fact that all such companies are engaging in both the use of sustainable practices and ethical trading. What differentiates whether a company belongs to cluster A or cluster B is defined by whether sustainability activity has been certified or it has not by an official certification body. What this research reveals however is that the differences in the approach towards signalling sustainability between the two clusters go deeper than their decision to acquire certifications or not. The two clusters of companies, even if they are intrinsically engaged with sustainability, approach sustainability in a different way: cluster A adopt a holistic sustainability approach, whereas cluster B adopt a shorter term transitional approach. These different approaches are also mirrored by the sustainability signals companies send out to their stakeholders (receivers). The result reflects the following pattern: cluster A companies send out homogeneous sustainability signals and achieve signalling fit, whereas cluster B send out heterogeneous and partial sustainability signals which do not achieve signalling fit.

As the model above demonstrates, homogeneity in sustainability signals results into positive outcomes and benefits to companies and stakeholders. Previous studies (i.e. Mallin et al., 2012; Eccles et al., 2011; Maguire et al., 2009;Gao et al., 2008), in conjunction to the findings of the present work, discuss the positive outcomes when homogeneity in signalling occurs. Positive outcomes result from signalling sustainability and they apply to both the company and to its stakeholders. These include: gaining brand recognition; increasing demand for sustainable products; attracting publicity; enhancing visibility; increasing interest by the public and explaining that sustainability is a continuous journey. In addition, reinforced sustainability signals build market awareness of the existence of sustainable companies operating in a specific industry. They help towards setting up a signalling sustainability platform and they also influence the formation of sustainability standards in relation to fair trading. The model demonstrates that when there are positive outcomes from signalling sustainability, then the initial drivers which led to signalling sustainability in the first place are reinforced as well. The process of

signalling sustainability becomes cyclical as the drivers lead companies to resend the same signals that achieved signalling fit in the first place. This repetition makes sustainability signals stronger as the process is repeated over and over.

However, this study also reveals that heterogeneity in reasons to signal sustainability result in ineffective signals where no signalling fit is achieved. As a result there are negative outcomes for both the companies and the stakeholders including: uncertainty of whether sustainability is a constructive signal; indecision as to whether sustainability enhances brand identity or not; and indecisiveness on whether signalling sustainability is a necessary element to include in a company's communications program in order to affirm the company's sustainability strategy. These negative outcomes feed back to drivers of signalling sustainability that initiated signalling. At that point, companies have to reconfigure which sustainability signals they will have to adjust, and / or which other ones to suppress. Cluster B companies may have to repeat this process of trial and error in signalling sustainability many times until they find the appropriate signals which are homogeneous with cluster A ones, so that signalling fit can be met eventually.

The model also shows that companies have similarities and differences in explaining what they do to signal sustainability. Again the cluster that a company belongs to, affects the homogeneity of these signals, their signalling fit and whether they will bring positive or negative outcomes to the company and its stakeholders. Besides applying ethics (Morris and et al., 2002; Adams, et al., 2001), which is a homogeneous signal and achieves signalling fit as far as both company clusters are concerned, the study notes that cluster A companies manage to send homogeneous signals, whereas cluster B send out heterogeneous signals. Companies from cluster A signal that, they practice sustainability through engaging in an eco-efficient transformational strategy, i.e. organic materials and finite resources, which produces homogeneous signals. Cluster B companies use transitional strategies i.e. up-cycling or recycling (Borland and Lindgeen, 2013) which produces heterogeneous signals as these processes have different approaches, even if they are part of a waste management process (Borland and Lindgreen, 2013;Shrivastava, 1995). Moreover, cluster A use sustainability signals as a means to streamline their processes and make their transformational processes comprehensive to them and to their stakeholders. Cluster B do not streamline

sustainability processes prior to signalling them, which more often than not results in offering less detail and depth, making sustainability signalling partial. The owner's values in conjunction with the company's shared values can also differentiate sustainability signals (Schmitt and Renken, 2012) between cluster A and cluster B. Cluster A companies' values are presented very clearly in signalling and the signals offer depth in their explanation. Cluster B companies' values when depicted as signals are not analysed in such depth, making the signals superfluous.

Regarding differences in what companies signal about sustainability, this research establishes some new findings, namely: non-certified companies (cluster B) signal the use of innovation to create new sustainable materials vs. certified companies (cluster A) who signal that they rely on traditional ecological methods. Recycling is used by cluster B companies as a main signal but not by cluster A. Moreover, cluster A use strong transparency signals offering a holistic approach to sustainability vs. cluster B that use less detailed transparency signals and focus on one or two attributes of sustainability. Cluster A set transparency standards to processes first and then signal about them, while Cluster B focus on the small size of their company as a signal to assure stakeholders for transparency in their processes. The place of origin is commonly used as a sustainability signal but can have different outcomes when it doubles up as a signal for transparency and eco-efficiency: "made in the UK" as a signal brings different connotations to stakeholders' minds, than does the signal: "made overseas". When cluster A companies use the place of origin as a signal of sustainability, they use a thorough explanation and proof of their claims, despite the fact that for some their products are "made in Britain" and for some others their products are "made overseas". The majority of cluster B companies on the other hand, do not use a thorough explanation about the place of origin of their products. They briefly mention one or two reasons of why they select to have their products produced locally or overseas, but do not go into depth in their explanation, leaving ambiguity in their sustainability signals.

Lastly, signals of a holistic approach to sustainability, which are used by cluster A(certified) companies, project a different kind of involvement towards a solution for eco-efficiency and ethics vs. a waste management approach adopted by cluster B (non-certified) companies. Such differentiations in signals also result in differences in the

directness and the depth of signals between clusters A and B which again reinforce heterogeneity in signalling sustainability and affect the fit of sustainability signals.

This study confirms similar ways to signal sustainability that are also noted in extant literature. These are higher pricing structures (Mintel, 2009), the use of recyclable materials for a retail space and a company's collateral (Rios et al., 2006; Gurau, 2008), the use of labels to explain the sustainability attributes of products, and the participation of companies to sustainability focused tradeshows (Vandekerckhove et. al., 2008; Walker and Wan, 2012). Moreover, this study also confirms the following differences in the type of sustainability signals sent: The use of explicit vs. implicit online CSR signals (Aguinis and Glavas, 2012; Oster, 2010; Gurau, 2008), the use of educational programmes regarding sustainability issues (Connelly et. al., 2011; Kirmani and Rao, 2000), and the occasional collaboration schemes between sustainable companies and charities (Mintel, 2009). However, this study also reveals two new ways to signal sustainability, which are homogeneous between the two clusters and thus achieve signalling fit. The first is through product design and quality in order to associate superiority between product attributes and sustainability. The second is through affordable pricing structures in order to change the stakeholders' mind-frame that sustainability is too costly.

This study also establishes new findings regarding differences in signalling sustainability between the two clusters. These are: the different uses of design and pricing structures as both signals of sustainability and for positioning purposes within a conventional segmentation framework; a company's brand-name historically used to signal affiliation with sustainability (Mintel, 2009), but presently not always the case; differences in the use of social media which again show heterogeneity in depth and analysis; and, educational programs which are used only on an occasional basis. Last but not least, when it comes to certifications, cluster A use certifications while cluster B do not.

As there are many differences in signalling sustainability, companies in the sustainable fashion sector still have a long way to go in order to tackle heterogeneity, partial signalling and information asymmetry. These prevent companies from achieving a signalling fit and constructing and establishing a commonly used signalling platform. However as there is some common ground amongst companies belonging to

thissimilar signalling environment, these signals can be used as a basis to build a common signalling language for private companies in this sector.

7.6   Chapter Summary

The chapter presented the discussion of the similar and different reasons, antecedents and avenues of signalling sustainability within a similar signalling environment between certified and non-certified companies. The discussion of these findings led to the development of the signalling sustainability process model. The model demonstrated that in a similar signalling environment, the signalling process is affected by similarities and differences regarding the drivers that urge a company to signal, to what companies do to signal and the ways they integrate sustainability into the marketing mix. The chapter also presents the avenues which companies follow in order to obtain a signalling sustainability fit: it was shown that such a fit can be achieved depending on the cluster that a company belongs to which results in sending out homogeneous signals (by certified companies) or heterogeneous ones (by non-certified). When there is homogeneity in the reasoning behind signalling, setting up antecedents prior to signalling and using homogeneous ways to signal, then signalling fit is achieved in a similar signalling environment. For these reasons, certified companies signalling sustainability achieves fit resulting in positive outcomes for both the company and its stakeholders and sets the basis for the development of a signalling language. When there is heterogeneity in sustainability signals, as noted in the signalling of non-certified companies, partial signalling and information asymmetry prevail, and the signals are ineffective. Signalling fit is not achieved in such circumstances, and there are no positive outcomes for companies and their stakeholders from signalling sustainability.

The next chapter will present the contributions, implications, limitations, suggestions for future research, and the summary of the Thesis.

CHAPTER 8

CONCLUSION

8.0   Introduction

Signalling sustainability is an exciting area of marketing study. For a company to signal sustainability effectively in order to achieve a signalling fit is quite a challenging task, even for companies intrinsically engaged with sustainability and operating within similar signalling sustainability environments. This chapter presents the thesis summary and the theoretical and managerial implications that derive from this work. It also elaborates on the limitations of the study and offers avenues for future research.

8.1   Thesis Summary

Signalling sustainability is a relatively new topic in today's ever changing business environment. This research proposes that effective sustainability signals should convey and capitalize upon the importance of sustainability as a practice on a multi-dimensional level. Effective signals need to be clear and specific to companies first, and then be communicated to the companies' stakeholders. Antecedents of sustainability set the basis of framing qualitative signals. Understanding the antecedents that affect a company's future strategy prior to signal strategy is a necessary first step. When antecedents are identified, signalling can act as the means to minimize ambiguity about a company's strategy (Epstein, 2009). To generate effective signalling, a company should create a connection between a signal and the underlying quality it represents, otherwise called a signal fit (Connelly et al., 2011).When there is a signalling fit, a signal is identifiable and continuous, unchangeable, costly to be altered, inimitable and will reduce the information asymmetry gap between the senders and the receptors (Spence, 1973; Gao et al., 2008).

This study initially reviewed the relevant literatures of CSR in conjunction to signalling theory, to understand the reasons why sustainability becomes a strategic resource and in what ways it is communicated to stakeholders. In order to explore this phenomenon further the following research questions were investigated: (a) Why do private companies that are intrinsically engaged with sustainability signal sustainability? (b) What do they signal about sustainability? (c) The ways they signal sustainability?

What the literature review revealed was that at present, signalling sustainability is fragmented and heterogeneous, and as a result companies do not always send out effective sustainability signals. Even though, the literature showed that sustainability can have many positive results on corporate performance (i.e. Dentchev, 2004; Pollock and Gulati, 2007), the review revealed that there is a clear lack of a signalling sustainability framework.

Qualitative research was considered to be the most appropriate research method for this study, employing interpretivism as the philosophical underpinning. The selected industry sector on which to conduct further exploration of the research questions was taken to be the sustainable fashion sector in the UK. Two cluster groups of companies were selected (following a set of selection criteria for sustainability practices) to participate in this empirical study: cluster A: certified companies, and cluster B: non-certified companies. These companies all belonged to the sustainable fashion sector of the UK fashion industry, and they were all private companies employing usually one to two people. All companies were intrinsically engaged with sustainability strategy, engaging in sustainable production methods and applying ethical trading. Their differentiating factor was that cluster A companies obtained certifications for their engagement with sustainability practices from official certification bodies, whereas cluster B did not.

The findings of this empirical study revealed four key drivers for signalling sustainability: (a) strategic drivers, (b) legitimacy drivers, (c) market drivers, and (d) owner drivers. These drivers affect what types of signals are sent and how they are sent out. The typical types of signals that companies send out reflect the application of sustainability into manufacturing and transparency in trading processes. Signals also

reflect why and in what way sustainability is integrated in corporate values. The avenues used to signal sustainability reveal that sustainability signals are incorporated into companies' marketing mix.Variation in these drivers, signals and methods was examined between the certified and non-certified companies in the sample.

The proposed signalling sustainability model suggests that within a similar signalling environment and in the presence of signal homogeneity coming from companies intrinsically engaged with sustainability, signalling fit is achieved. When there is sustainability signalling fit, positive outcomes derive for both the company and its stakeholders. Similar reasons for signalling sustainability and similarities in types of signals and signalling avenues can set the basis to develop a common signalling language amongst companies which operate within a similar signalling environment.

However, what the signalling sustainability process model demonstrated is that in a similar signalling environment, strategic, legitimacy, market and industry drivers are directly related to the cluster a company belongs to. This finding extends an earlier study that discussed the relationship between a company's cluster and the company's perception of its ethical structure (Morris et al., 2002). That earlier study focused on a sample which covered a spectrum of companies ranging from those intrinsically engaged with sustainability strategy, to extrinsically engaged, to not engaging with sustainability at all. This study focuses on a specific signalling environment, inclusive of companies of a similar industry, intrinsically engaged in sustainability, and which represent the sustainability focused niche of their industry. In order to determine clusters in the present study, the author used certification or non-certification as the differentiator. This study showed that certifications is not merely just a way to legitimize sustainability claims (Vandekerckhove et. al., 2007, Walker and Wan, 2012); the findings demonstrate that certified companies approach the overall strategy of signalling sustainability differently than those which are non-certified. Certified companies adopt a holistic sustainability approach reflected through homogeneous signals which achieve signalling fit. Non-certified companies adopt shorter term transitional approaches to sustainability strategy, which present different procedures when applied, and have differences when signalled. These different approaches to drivers of sustainability signalling also mirror the ways that sustainability signals are sent out to stakeholders (receivers). The way certified companies send sustainability

signals result in homogeneity in signalling and achieve signalling fit. Heterogeneous and partial sustainability signalsare usually sent by non-certified companies; these sustainability signals do not achieve signalling fit.

As also presented in previous chapters, homogeneity in sustainability signals results in positive outcomes and benefits for both companies and their stakeholders. Previous studies, in conjunction to the findings of the present work, discuss the positive outcomes when homogeneity in signalling sustainability occurs. Positive outcomes apply to both the company and to its stakeholders and include:gaining recognition(Walls et. al., 2012); increasing demand for sustainable products and solutions (i.e. Connelly et al., 2011; Mintel 2009; Kotler and Keller, 2009); attracting publicity (Belz and Peattie, 2009); enhancing visibility(Pollock and Gulati, 2007); increasing interest by the public and explaining that sustainability is a continuous journey (Campbell, 2007). New findings, which constitute new reasons for signalling sustainability, show that homogeneous sustainability signals can also build market awareness of the existence of sustainable companies operating in a specific industry, and may influence the formation of sustainability standards in relation to fair trading.

The model also demonstrates that when there are positive outcomes from signalling sustainability then the initial drivers which led to signalling sustainability become stronger. Strong drivers lead companies to repeat the process of sending the same sustainability signals that achieved signalling fit in the first place. This repetition makes the type of sustainability signals more effective and the ways to signal more straightforward. In other words, homogeneity signalling sustainability is reinforced when fit signals are repeated over and over through the signalling sustainability process.

However, this study also reveals that, even when similar drivers urge non-certified companies to signal sustainability, as they do for certified companies, the types of signals and the ways that non-certified companies signal sustainability present heterogeneity. Companies are uncertain of whether sustainability is a constructive signal for them, and indecisive of whether sustainability enhances their identity. This stance from non-certified companies creates partial signalling. Companies are also unsure whether signalling sustainability is a necessary element to include in their

communications program in order to affirm their involvement with sustainability strategy; this results in information asymmetry as some companies signal sustainability and some do not. With ineffective sustainability signalling there are no positive outcomes for companies and their stakeholders.In addition, these negative outcomes feed back to drivers of signalling sustainability that commenced the signalling process initially. Non-certified companies have to then reconfigure repeatedly which sustainability signals need adjustment, or which signals should be suppressed. Finding out which signals may offer signalling fit to non-certified companies can involve high costs and loss of valuable time.

The examination of the findings of this study, which led to the development of a revised signalling sustainability process model, allows the author to conclude that due to differences in how drivers of sustainability signalling are utilized by certified vs. non-certified companies, and due to the different types of sustainability signals and the methods of signalling sustainability by companies belonging to the two different clusters respectively, presents the possibility of the formation of a fully accepted signalling sustainability language and framework a very challenging task. Differences in the current understanding and application of signalling sustainability strategy between certified and non-certified companies are deterrents of effective signalling, and allow conditions such as heterogeneity, information asymmetry and partial signalling to prevail in a similar signalling environment in any given sector.

8.2 Contributions of the research

The outcome of the present research study offers two sets of implications: theoretical and managerial.

8.2.1 Theoretical Implications

This study extends the sustainability literature, illuminating drivers, types and methods of sustainability signals and showing variation between certified and non-certified companies. One outcome that contributes to the current literature of signalling and CSR is that sustainability is an evolving subject and by extension its signalling keeps evolving as well.

This study develops the literature of signalling sustainability by adding new academic knowledge regardingwhy companies signal sustainability (strategic, legitimacy, market and owner drivers). It also reveals that sustainability signals help build market awareness of the existence of sustainable companies in a specific industry. It shows that companies intrinsically engaged with sustainability focus on signalling of sustainable manufacturing processes and use transparency signals to legitimize their sustainability claims. The study also highlights that companies in this sector signal sustainability as part of their corporate identity, and also illustrates that companies that are intrinsically engaged with sustainability signal it via their marketing mix through: sustainable product design; pricing structures to indicate that a product is sustainable; applying sustainability elements in the design of their retail space and their company collateral; using PR and promotional activities; utilising awards and certifications; focusing on the improvement of public knowledge of social and environmental issues. In addition, this study uncovers new avenues through which sustainability signals are integrated into the marketing mix. New signals of sustainability are found to arise through the visual appeal of product design and competitive pricing structures, to show that sustainable products are also affordable.

Another contribution of the study relates to how similarities and differences in signalling sustainability between certified and non-certified companies affect the whole process of signalling sustainability. Certified companies apply transformational sustainability strategies and use sustainability signals to enable the development of their selected sustainability strategy even more. They also seek to develop a viable sustainable business system and view sustainability as a valuable resource. Thus, they are fully committed to their sustainability strategy, something that is reflected through their sustainability signals, which are structured, detailed and offer depth. Non-certified companies on the contrary, apply transitional sustainability strategies and engage with sustainability strategy out of self-interest for their business viability. Sustainability for them is an added resource, and this is reflected by the fact that their sustainability signals are more *ad hoc* and less structured.

This study also contributes to the literature by explaining the process that companies need to follow in order to achieve signalling fit. One important antecedent for

signalling effectively involves the use of comprehensive sustainability signals to bridge discrepancies in knowledge between companies and their stakeholders. In order to create comprehensive signals, companies need to streamline their sustainability strategy and put "all their ducks in a row". This study shows that the application of this initiative is found more in certified companies because they usually streamline their processes and then signal; whereas non-certified companies may not streamline their processes prior to signalling sustainability. This reflects the following pattern: certified companies send out homogeneous sustainability signals and can achieve signalling fit, whereas non-certified companies send out heterogeneous and partial sustainability signals which do not achieve signalling fit. As such, the sustainability signals sent by the two different clusters have an overall impact on the signalling environment of the given industry. This study argues that when there are positive outcomes from homogeneous signals, then the drivers which led to signalling sustainability are strengthened. The cyclical process of signalling sustainability, i.e. drivers, types and methods, makes sustainability signals stronger as the process is repeated. When there are negative outcomes from heterogeneous signals, then there is no fit and the outcomes of signalling sustainability are negative, time consuming and costly as companies need to go back and repeat the whole signalling process again. In doing so they need to reconfigure which signals should be adjusted and which should be suppressed in order to eventually discover sustainability signals which are homogeneous with those sent from certified companies and thus more effective.

An additional contribution of the present research is the identification of similarities (among signals from the two cluster groups), which can constitute the basis of a signalling sustainability language, and also showed the areas where differences deter the creation of a signalling platform. Similarities and differences are found in how drivers are used, the types of sustainability signals and the methods that are applied: through a holistic sustainability approach which is mirrored by holistic sustainability signals as sent by certified companies; vs. through a waste management approach, adopted by non-certified companies, which reflects differences in the directness and the depth of signals.

A further academic contribution of this study is that it shows why the creation of a signalling sustainability language is hindered. Existing differences in reasons why

companies signal sustainability, what they signal about sustainability and how they signal sustainability, stresses that there is a strong need for the development of a single coherent sustainability definition and this may be imminent albeit long overdue. Still to this day the complexities of sustainable production processes are not juxtaposed against a set of signalling criteria that are fully accepted. This affects everyone from big companies to small private ones employing one to two people. Signalling sustainability will have to start from the acceptance of a common and detailed sustainability definition that has a set of sustainability criteria, against which companies can measure up and then proceed with signallingtheir sustainability strategy.

8.2.2   Managerial Implications

There are several managerial implications resulting from the present study.

This research explored the parameters that make sustainability signals effective and the parameters that limit this effectiveness. The study explains the drivers that companies have in common in order to signal sustainability, and the reasoning behind these drivers. This research is beneficial to managers because it can enable them to better comprehend which drivers behind their signalling sustainability strategies will help them enhance the success of their sustainability signalling even more. Understanding the drivers that lead to sustainability signalling can also help managers find ways to overcome possible obstacles that could hinder the delivery of effective and successful sustainability signals.

This research also outlines the widely acceptable and recognisable sustainability antecedents which companies need to obtain prior to designing any signalling sustainability strategy. Therefore, it offers managers a list of necessary prerequisites that a company needs to obtain prior to engaging in any sustainability signalling. If all companies,operating in a specific signalling environment, think and set antecedents prior to signalling, then the development of a common signalling sustainability platform could be very near.

Another managerial contribution from this study is that it explains how signalling sustainability allows a company to differentiate itself from other companies operating in a similar signalling environment. Similarly to what certified companies are doing, non-certified companies should focus on the homogeneous signals, outlined in the "findings" chapters of this study, which are currently sent out by certified companies. Non-certified companies could use these types of signals as a guideline and adopt similar ways of signalling sustainability to overcome any heterogeneity in their current signalling structure.

Similarly to certified companies, whose signalling sustainability is also used to explain to stakeholders the impact of their choices, non-certified companies should engage in a similar conversation to show to their stakeholders that they are knowledgeable and able to educate them about sustainability issues. This initiative will open dialogue between non-certified companies with their stakeholders and will give non-certified companies the opportunity to look deeper into ways they could be helping their stakeholders to make more informed choices. In addition, this initiative would support non-certified companies to gain visibility and credibility points regarding sustainability. Lastly, if non-certified companies engage in the dialogue to educate the general public about sustainability issues (as certified companies do) then the whole sector will benefit since such signals will be more frequent and homogeneous.

Finally, non-certified companies should not just rely on their small size to signal transparency claims. Certified companies start from the small size of their company but expand their sustainability signals by explaining in depth (and with actual examples and facts), how their size allows for transparency, in order to assure homogeneity in their signals.

8.3   Limitations and future research directions

There are certain limitations in the present research, as detailed below.

First, this work was set in a specific country (UK). The research study was also narrowed down to a theoretically relevant number of companies from the specific signalling environment of private companies intrinsically engaged in sustainability and

operating within the sustainable fashion sector. Further studies should look into examining the proposed model in other geographical contexts. It would also be beneficial to extend the study to other industries, but keep the research within a similar signalling sustainability environment.

Second, as the environment of private sustainable fashion companies in the UK is quite narrow (it represents barely 1% of the total fashion industry, Mintel 2009), it was a big challenge to find a larger number of companies to participate in this research. The main reason is because many such companies go out of business within two to three years of operations due to financial difficulties and so the sample of companies from which to draw from is limited.

Third, obtaining access to financial data in order to measure the financial effectiveness of signalling sustainability was not possible for the sample selected, because financial data from companies were not disclosed to the author. Further research can focus on examining the relationship between signalling sustainability in conjunction to financial performance in other contexts, where it is possible to measure financial effectiveness if financial data are publicly disclosed, for instance.

Fourth, the proposed signalling sustainability process model should also be tested and extended into quantitative research, to compare signalling sustainability between certified and non-certified companies of different sectors and geographical regions.

Finally, another research avenue would involve studying the relative profitability of sustainability for a given industry. In other words, is signalling an eco-efficient strategy more profitable than signalling a transitional strategy that utilises waste management?

8.5   Chapter summary

This chapter presented the thesis summary, the theoretical contributions and managerial implications of the study, discussed the limitations of the research and proposed future research directions. The findings offer insights regarding why

companies that are intrinsically engaged with sustainability and belong to a similar signalling environment signal sustainability, what they signal about sustainability and the ways they signal sustainability.

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APPENDICES

APPENDIX 1: THE CLASSIFICATION BETWEEN CERTIFIED AND CON-CERTIFIED COMPANIES

This information is obtained directly from the Ethical Fashion Forum website and explains the clarification between certified and non-certified companies. This information can be found at: **www.ethicalfashionforum**. com

"Certified companies" implies that the company complies with sustainable standards and labels through an affiliation with an official sustainable standards body or labelling organization. When a company is certified by a specific body then they carry this body's labels which signals that their products are either fair traded, and/or comply with organic standards, or are designed sustainably (eco-labels). More specifically:

i. Affiliation with ethical standards bodies and labelling initiatives

Such bodies work and support fashion companies. They assist with developing and invigilating standards towards improving sustainability practices. Some of these bodies and labelling initiatives are the Ethical Fashion Forum, Made By, the Soil Association, The World Fair Trade Organization (WFTO), The Ethical Trading Initiative (ETI)

ii. Fair Trade Labelling

Standards for fair trade practices in regards to cotton producers were officially set by the Fair Trade Labelling Organization (FLO) in France, Switzerland and the UK in 2005. When a company is certified by the FLO, this means that the cotton producers were paid fairly for their work producing cotton. At present there is no fair-trade label which ensures that the whole garments production process is sustainable (from start to finish).

<u>iii. Organic Standards</u>

These organizations' labels assure that a garment made of organic cotton does not contain conventional cotton, no pesticides or GM have been used to grow the cotton, and that the maximum of synthetic materials used for the garment is 10%. Organizations that provide companies with this label is the Soil Association and EKO.

<u>iv. Eco labels</u>

Currently there are almost 100 different labels used to explain environmental or social sustainability, applicable in the textile industry. These labels are instigated by public institutions, private certification companies, NGOs or are joint initiatives by major retailers. Often major retailers develop their own sustainable standards and produce their own labels. The most commonly used label in Europe is the Oko-Tex standards 100 mark. This label ensures the least possible fresh water pollution when textiles are produced.

APPENDIX 2:

DISCUSSION GUIDE

Date of Interview:

Place of Interview:

Duration of Interview:

Company Name (will remain confidential):

Company Size:

Company Location:

Company Age:

Sector operating in:

Company Product(s):

Key markets:

Informant Sex:

Informant Age:

Informant Education:

Informant's years in the company:

Informant's role in the company:

a) How do you define sustainability? Can you give me an example? How
   does your company interpret sustainability? Can you give me an
   example?

b) What is the role that sustainability plays for your company? Can you
   give me some examples?

c) Does your company communicate sustainability? How? Can you give
   me some examples on such communication efforts (current and past)?
   What determines whether and to what extent you communicate
   sustainability? (May want to prompt on key antecedents as identified in
   the literature if they are not mentioned by informants without

prompting). What are the signals you are using to communicate sustainability? Examples? What are you aiming to achieve with these signals? Examples? To whom are you targeting these signals? (Different stakeholders?)

d) Which are the stakeholders for your company? How do you communicate sustainability to different stakeholders (the same or different signals?) Examples? Do they affect the design of these signals / communication of sustainability? How?

e) Are your stakeholders interested/ knowledgeable in sustainability? Do the signals you sent to them to address their expectations? In what way? Are there any things that you have learnt during this exchange of information (sending signals, and getting feedback from stakeholders in regards to these signals)?

f) Do you think there is a difference in the sustainability signals in your industry? In terms of quantity, do some firms signal sustainability more than others in your industry? Why? Examples? How about differences in the quality of signalling? Examples? What makes sustainability signals more effective? Examples of sustainability signals from your company? Examples of effective sustainability signals from your industry? Why are they effective/? Examples? Are there any sustainability signals of your company or in your industry that you think are not that effective? Why do you think this is the case?

g) Does signalling your sustainability have any outcomes? Examples? Does it affect your company's performance? In what way? Examples?

h) Do any of your competitors communicate their sustainability? What are the signals that they are using? How would you characterise their signalling? Has it affected your competitors' performance?

i) Are there any restrictions and limitations a company might face when signalling sustainability? Does your company face any restrictions or limitations in its efforts to signal sustainability? How about your competitors?

j) Is there anything else that companies in your industry could be doing differently when signalling sustainability?

Thank you for your time.

END OF DISCUSSION

APPENDIX 3:

LETTER FOR INQUIRING AN INTERVIEW

Date: 24 September 2012

Hi Hans,

 I hope you are well. This is Hebe, Brian's and Toby's friend.

 I am writing because I am planning to be in Scotland from the 7th until the 11th of October and I was wondering if you could squeeze me in your busy schedule for a chat which won't be longer than an hour.

At the moment I am pursuing a PhD degree in Marketing at Cardiff Business School, Cardiff. My area of research is sustainability marketing in retail, and my focus is how the ethical fashion companies are sending out signals about their eco and ethical credentials. I would like to talk to you about it since you have been one of the most prominent Creative Directors in this sector for all these years now, and your thoughts will be a valuable addition to this academic research. The analysis of the topics we discuss when we meet up will help me in the task of formulating an academic theory on how fashion companies practice and project their sustainability credentials to the public and their target consumers - their stakeholders.

Our chat will be strictly confidential; under no circumstance or at any stage of the study, or afterwards, I will reveal your name, title, personal data, the company you work for, or any of the names of your clients. You can refuse to answer a question or questions at any point, or withdraw at any point during our conversation.

After our discussion is over, I will transcribe our conversation and analyse it for the purpose of the PhD. The PhD itself can be available to you - if you wish - after it is completed and submitted. The analysis of the material I will use from our conversation is solely for academic use and once the PhD is defended successfully, it will be made public via an online academic archive which is located on Cardiff University's website. Any academic papers that emerge from this study will be published in academic journals. Again, I want to assure you that neither your name nor any affiliation with your company and your clients will be revealed as it is not necessary for the development of academic theory.

I hope we can meet up. Please let me know if there is any day between the 7th until the 11th .of October that we could meet up. I can come at any place and any time you choose.

Many thanks for all your help and I hope to see you soon.

Best wishes
Hebe Varda