One Standard of Beauty, Two Standards of Environmental Sustainability

How do Asian and Western cosmetic companies incorporate environmental sustainability into sustainability reporting from 2018 onwards?

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ABSTRACT

With climate change no longer being a distant issue plaguing the world, the focus on environmental sustainability has never been more pertinent than ever. In the past couple of years, there have been growing emphasis on companies to be transparent and held accountable for their manufacturing processes and supply chains. Companies exhibit their initiatives through Corporate Sustainability Reports (CSRs), serving as a bridge to report their sustainability efforts to stakeholders. With sustainable products being in-demand, some companies are also leveraging on their sustainability efforts as a marketing or publicity stunt. Among the different industries, the cosmetics industry has historically been under heavy scrutiny regarding sustainable processes. As an industry that is heavily reliant on package goods, it is interesting to analyze and compare how these companies have adopted sustainable ways in their processes. Even though the consequence of global warming is omnipresent, there seems to be varying degrees across different countries in acknowledging the severity of the environmental issues and the importance of sustainability. For the purposes of a high-level comparison, this research investigates the differences between Asian and Western countries. This is especially relevant as Asian and Western consumers are culturally divergent, resulting in differences in their perception and consumption behavior. This study aims to understand the differences in sustainability communication between Asian cosmetic brands and western cosmetic brands. Qualitative content analysis was used to analyze the content across 20 sustainability materials such as companies' annual reports or sustainability reports. The key words in the reports are analyzed as codes and grouped into code groups for further analysis. Through this study, we hope to gain a better understanding of the key area of focus in sustainability communication between cosmetic companies across the region. The result from this research shed light on four key concepts surrounding environmental sustainability, mainly stakeholder theory, environmental sustainability, rise in environmental consciousness and greenwashing

ATLAS.ti was utilized to convert reoccurring environmentally sustainable themes and phrases within reports into codes, which was then allocated into one of the twelve artificially generated code groups. This resulted in a total of 2,587 codes stemming from twenty reports, of which Carbon Emissions, Environmental Impact & Sustainability, and Plastics Packaging inhibited greatest significance by a large margin when compared to other code groups. Furthermore, while the total distribution of code groups was approximately equal across Asian and Western cosmetic companies, individual code group distribution severely varied in the four most significant code groups. Consequently, as part of the qualitative content analysis, four concepts were extracted from main findings of specific marketing usage of relevant code groups. The concluding remark is that Stakeholder Theory, Environmental Sustainability, Rise in Environmental Consciousness, and Greenwashing feature heavily in the analysis of cosmetic companies' sustainability reporting.

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1. <u>Introduction</u>

1.1 Background and Context

Climate change is one of the biggest global challenges faced by the world today. According to reports published by the IPCC, between 1880 to 2012, average global surface temperature warmed by 0.85 degree Celsius (IPCC, 2013). To further describe the severity of the issue, there are many regions around the world that are experiencing greater regional-scale warming of over 1.5°C in at least one season (IPCC, 2018). While natural phenomenon may contribute partly to the increase in surface temperature, the largest and main contributing factor is undoubtedly the large amount of greenhouse gases released through human activities. NASA's Dr Gavin Schmidt highlighted that human were responsible for around 110% of observed warming (ranging from 72% to 146%), with natural factors in isolation leading to a slight cooling over the past 50 years (Hausfather, 2017). This has resulted in environmental, economic and social impact all over the world. The rise in temperature has profound consequences on the human race and our environment. In recent days, more extreme weathers such as drought, floods and wildfires have been observed, sea levels are rising at exponential rates, resulting in a loss and even extinction of biodiversity (IPCC, 2018). These changes are causing unprecedented risks to vulnerable persons and the population at large. Many scientists have assessed the impact of climate change and ascertained that the consequences of climate change are long lasting and will be the defining challenge of our time and our future generations (Hansen et al., 2013). With such a potentially devastating problem looming ahead of the world, the international community have attempted to come together to collectively try and combat climate change via initiatives like the Kyoto Protocol ("Kyoto Protocol", 1998) and the Paris Agreement (The Paris Agreement, 2015). However, only a concerted global response from all stakeholders including multi-national companies, conglomerates all the way down to each individual consumers will give the world a fighting chance to combat the threat of climate change. Since then, we have observed a stark increase in effort and focus on environmental sustainability. One example is the total global investments made in renewable energy capacity which stand at $40.6 billion in 2004 but have exploded to $250 billion in 2014 and continue to increase (Ajadi et al., 2019).

Another example of the concerted global response is the rise in the number of net zero targets being set by companies in their sustainability reports (Hale et al., 2022). Such targets are set by companies as part of their decarbonization journey, by being transparent to stakeholders and allowing stakeholders to hold them accountable for such targets. While the proclamation of net zero targets has simply been booming, it was found that of the 702 companies that have set net zero targets, only around half had included an intermediate target as part of how they would achieve their net zero targets (Hale et al., 2022). Additionally, only thirty-eight percent (38%) of these companies,

announced net zero targets that included all emissions associated with their products and company's activities, including emissions from supply chains to consumer use and eventual disposal (Hale et al., 2022). This means that despite the raft of net zero targets, many companies only make targets that cover part of, and not all of the associated emissions with their products and activities. The fact that many of the associated emissions are not covered by the net zero target suggest that these environmental sustainability commitments declared are not genuine and therefore are greenwashing claims. According to the report, which examines the emissions of the top 25 companies in the world, Scope 3 emissions account for roughly about eighty-seven percent (87%) of the total emissions associated with the companies, but only eight companies from the sample disclosed their plans on how they would reduce their Scope 3 emissions (Hale et al., 2022). Therefore, companies which make net zero targets that are incomplete fall foul of the sin of fibbing, and such commitments are considered to be greenwashing claims, given that they are inaccurate and misleading.

1.1.1. *Why sustainability reporting?*

It is in the backdrop that this study has chosen to focus on the review of sustainability reporting as part of this thesis, to identify whether the targets set by multinational companies, are reflected in their scope of reporting in the sustainability reports, along with the depth and detail in which how such targets are to be achieved. Furthermore, as part of this study, the thesis seeks to examine whether there is a difference in how sustainability is being reported by Western companies and Asian companies, especially against the recent research that suggest that Asian companies are less likely to actually reduce their carbon emissions as compared to other companies globally.

1.1.2. *Why cosmetic companies as choice of target companies?*

Next, the reason why this study has chosen to focus this thesis on the beauty and cosmetic industry is due to the fact that the cosmetic industry has seen tremendous growth in the last decade. Attributing this growth to the rise in consumerism, social media and the rise in K-wave and J-wave in Asia which further contributed to more emphasis on beauty standards (Dai, 2019). According to Statista, the Beauty & Personal Care market amounts to US$564.40bn in revenue in 2022 ("Statista Market Forecast", 2022). Furthermore, this market is expected to grow annually by 4.76% (CAGR in 2022 to 2026). Being a key market in consumer goods, it is inevitable that the cosmetics industry is also one of the most discussed fields regarding sustainability (Prothero, 1995). With these information and a personal interest in environmental sustainability and circular economy, this thesis will look into cosmetic companies and their implementation of sustainability through sustainability reports and official materials.

1.1.3. *Why Asian and Western cosmetic companies?*

According to a recent report by CPD, it highlighted that within the Asia Pacific region, companies are behind in terms of setting their climate targets, with only eight percent (8%) of the

companies responding had declared a net zero target (CDP, 2021). Given that companies that set targets were four times more likely to decrease their carbon footprints (CDP, 2021), the statistics suggest that Asian companies are less likely to actually reduce their carbon emissions as compared to other companies globally. This also identifies the socio-scientific relevance of this thesis, where the thesis seeks to conduct an in-depth qualitative content analysis of the sustainability reporting by cosmetic companies, firstly to consider whether or not cosmetic companies are, in incorporating environmental sustainability in their sustainability reporting, guilty of greenwashing by providing incomplete net zero targets, in support of the report by Hale et al., (2022). Secondly, the relevance of the thesis is to determine whether Asian cosmetic companies are lagging behind compared to their Western counterparts in terms of their environmental sustainability reporting.

According to L'Oreal 2020 annual report, the Asia Pacific cosmetic market was the largest globally, with a market share of 43%. (L'Oreal, 2020). The Western consumer market on the other hand, comprising of North America and the Western Europe market, make up 24% and 16% respectively. Historically, the mention of "Western World" considers Europe as well as any countries whose culture are strongly influenced by European values or whose population include European descendants, for example North America (World Wildlife fund, 2022). Due to cultural similarity and relative homogeneity, for the purpose of this thesis, both the North American and Western European market shall be collectively considered as the Western consumer market, thus making its market size to be 40% (North American and Western European market combined – 24% + 16% = 40%). Therefore, in terms of market share, the choice of Asian cosmetic and Western cosmetic companies cover similar market size and represent the majority of revenue for cosmetic brands. Given the vast market share that Asian cosmetic and Western cosmetic companies cover, they are a good reflection of the effort in sustainability reporting done by the cosmetic industry.

In terms of academic relevance, the reason for choosing a comparative analysis of Asian and Western cosmetic companies is because currently, most academic articles have only focused either on a singular market for review, such as Lin et al., (2018) where the focus is on UK consumers, Hungarian consumers and Indonesian consumers (Amberg & Fogarassy, 2019; Asmara Dewi, W. W., Avicenna, F., & Meideline, M. M., 2020). Where there has been a cross cultural comparison, such articles dealt with the cultural differences in perceived ideal notion of beauty between two diametrically opposed countries. For example, one study compared the differences between advertisement of skin beauty products between China and the United States, with the focus on elements relating to skin complexion (Xie & Zhang, 2013), while another considered the executional aspects of advertising by global brands towards Japanese and United States consumers (Taylor & Okazaki, 2015). Further, cross-cultural comparisons on issues of ethics and sustainability in the cosmetic industry are mostly revolving around misbehaviors of consumers and issues of fair trade

(Newholm and Shaw, 2007). While Bom, Jorge, Ribeiro & Marto (2019) did a cross cultural comparison between French consumers and Canadian consumers, the comparison is done between two sets of consumers with broadly similar cultural experiences. For example, there are parts of Canada that are French speaking and are of French descent.

Several reports have also sought to consider the performance of Sustainability Reporting between different geographical regions (Gill et al., 2008; Baughn et al., 2007; Calderon et al., 2021). It is posited that the reason why Asian corporate social reporting lags behind Western counterparts due to Corporate Social Responsibility is viewed as a predominantly Western trend (Baughn et al., 2007). However, it does not consider the fact that Asia as a whole, "differs substantially in their levels of economic development, political and legal systems, and cultural norms" (Baughn et al., 2007).

This thesis seeks to take a more diverse comparison between Asian and Western cosmetic companies. In doing so, this thesis seeks to plug two gaps. Firstly, it considers a cross cultural comparison from the viewpoint of the manufacturer (also the pollutant from an environmental perspective), and secondly, it is trying to identify the differences that these cosmetic companies have by virtue of their origin (either Asian or Western). The academic relevance of the thesis therefore is by conducting an in-depth qualitative content analysis of the sustainability reporting done by Western and Asian cosmetic companies.

1.2 Research Sub-Questions

The goal of this thesis is to find out how companies introduce and implement sustainability as a tool in their branding, focusing on sustainability reports by cosmetic companies. The rationale for choosing sustainability reports is that it is increasingly common for large corporations to publish Corporate Social Responsibility or sustainability reports to highlight their sustainability efforts and initiative as an organization (Sahota, 2014). Additionally, sustainability reports help to provide metrics and data to allow for transparency in accounting to external stakeholders of which, one of the main stakeholders would be consumers (Sahota, 2014). This thesis seeks to consider this by exploring in particular the sustainability reports for the purpose of deliver this message to the companies' consumer base. In doing so, the paper dives into a qualitative content analysis of sustainability reports by several beauty companies across Asia and the West, in order to determine if there are any differences by these companies based on geographical origins. For this research, the question that will be answered is "How do Asian and Western cosmetic companies incorporate environmental sustainability into marketing campaigns over the last decade? A cross-cultural comparison of how Asian and Western cosmetic companies portray environmental sustainability in their sustainability reporting from 2018 onwards.

The research question that this thesis seeks to address is: how do Asian and Western cosmetic

companies incorporate environmental sustainability into their sustainability reporting from 2018 onwards?

The research question is divided into investigative sub questions that are:

Q1: How does each organization incorporates environmental sustainability as part of the sustainability reports?

Q2: What are the differences in how environmental sustainability is being portrayed in sustainability reporting by Asian and. Western cosmetic companies?

The first question is intended to determine how each organization portrays environmental sustainability as part of its sustainability reporting, by examining the sustainability reports of the selected cosmetic companies over the time period, as described below. This focuses on the aspect of environmental sustainability and how this construct is used as part of branding by these cosmetic industries, by Asian and Western beauty companies. Through examining several sustainability reports over the years by the various cosmetic companies, the thesis then seeks to identify various themes through a qualitative content analysis. These concepts are highlighted through the theoretical framework, which considers whether key concepts are utilized by cosmetic companies as part of emphasizing environmental sustainability in their marketing campaigns.

The second question focuses on a qualitative content analysis by comparing the differences in between both set of cosmetic companies. This comparison focuses on identifying any differences between the Asian and Western companies. According to the Asia Corporate Purpose Monitor, a comparison between corporate messages on Instagram and Twitter between August 2020 and July 2021 indicated found that Asian corporates are "less purpose-focused in their social media communication activities" ("Asia Corporate Purpose Monitor", 2021). Therefore, the thesis seeks to identify the possible differences between Asian and Western Cosmetic companies, to elucidate the possible reasons as to this disparity in purpose-focus.

Therefore, a comparison between the two cosmetic industries makes sense given the similarity in size, helping to identify how prevalent environmental sustainability is used by cosmetic companies as part of branding. Additionally, unlike the relative homogenous nature of the Western market, the Asian market represents one with greater diversity, given the difference in cultural preferences, skin color, and demographic. According to Unionsystem, Asian cosmetic companies vary vastly in quality, even within the same region (Unionsystem, 2019). Further, the Asian market, unlike the Western market, is made up of varying levels of financial spending power within the respective customer base.

As part of the thesis, the various key concepts that are considered are: corporate social responsibility, environmental sustainability, greenwashing in sustainability disclosures, sustainable packaging and consumer consciousness in Asia and the West. The two Western cosmetic companies that we have identified are: L'oreal and Estee Lauder. The cosmetic companies that are identified with a focus on the Asian consumer market are: Shiseido and AmorePacific Group.

1.3 Outline of Chapters

The next chapter (*Theoretical Framework*) presents the theoretical framework on Corporate Social Responsibility and highlights the various key concepts around Environmental Sustainability and in relation to the cosmetic industry. The theoretical framework also seeks to identify the academic key concept relating to the rise in Environmental Consciousness by consumers as a driver for sustainability reporting by corporates, along with findings seeking to explain the dichotomy between consumer attitudes in Asia and the West. Chapter Three (*Research Design*) explains why sustainability reporting was chosen as part of the study, the choice of the various cosmetic companies and the mode of analysis that was to be conducted. In Chapter Four (*Research Steps and Data Collection*) details the methodological choices that were made while conducting this study, including a walkthrough of how the data was collated and analyzed. Chapter Five (*Data Results*) explained the results that were collected via ATLAS.ti and a comparative content analysis of Asian and Western Cosmetic companies were conducted. In Chapter Six (*Identifying Key Concepts*), the findings are further discussed in around the key concepts to which the theoretical framework had considered in relation to how sustainability reporting is conducted by Asian and Western Cosmetic Companies. The chapter also highlights examples where appropriate to explain the connection with the various concepts. Finally, Chapter Seven concludes the paper and suggests possible avenues for further research.

2. **Theoretical Framework**

As part of the theoretical framework, this thesis considers a number of key concepts that are important as part of the analysis. The first important concept is the notion of Corporate Social Responsibility, where the thesis seeks to consider how Corporate Social Responsibility applies and is internalized as part of a company's function. Thereafter, a facet of Corporate Social Responsibility is Sustainability. Thereafter, the thesis turns its focus as to Environmental Sustainability as part of the many types of Sustainability work that a company might choose to focus itself with. This includes examining the recent phenomena across the world by corporates in committing to net zero and carbon neutral targets (Hale et al., 2022). Another concept that this chapter look at is Environmental Sustainability in the cosmetic industry, through Corporate Social Responsibility communications.

The second segment of the thesis switches the focus to the differences between how Asian cosmetic companies and Western cosmetic companies incorporate Environmental Sustainability as part of their sustainable branding. As part of this comparison, a key concept that is being examined is the level of consumer consciousness regarding environmental sustainability in Asia and the West. In identifying that there is a difference between how Asian consumers and Western consumer perceive the importance of environmental sustainability or are even aware of it, it provides a possible reason as to why Asian cosmetic companies and Western cosmetic companies might be less purpose driven when it comes to branding themselves.

2.1. Corporate Social Responsibility

According to Milton Friedman, the existence of corporations primarily is to generate profits (Friedman, 1970). Also known as the shareholder value maximization principle, this has been the fundamental purpose that most companies pursue as part of their core function. However, in today's society, corporations are now expected not simply to pursue profits, but to engage actively in driving positive impacts in society, as part of Corporate Social Responsibility (Sahota, 2014).

Yet, Corporate Social Responsibility remains a concept that is not universally agreed upon, with different people having different opinions on what constitutes Corporate Social Responsibility. Fundamentally, a definition of Corporate Social Responsibility was developed by B. Carroll in the article "The pyramid of Corporate Social Responsibility: towards the moral management of organizational stakeholders", where four categories "jointly embody the responsibilities that a company would hold in, which are economic responsibility, legal responsibility, ethical responsibility and philanthropic responsibility" (B. Carroll, 2016, p. 5).

Fig. 1 Carroll's pyramid of CSR
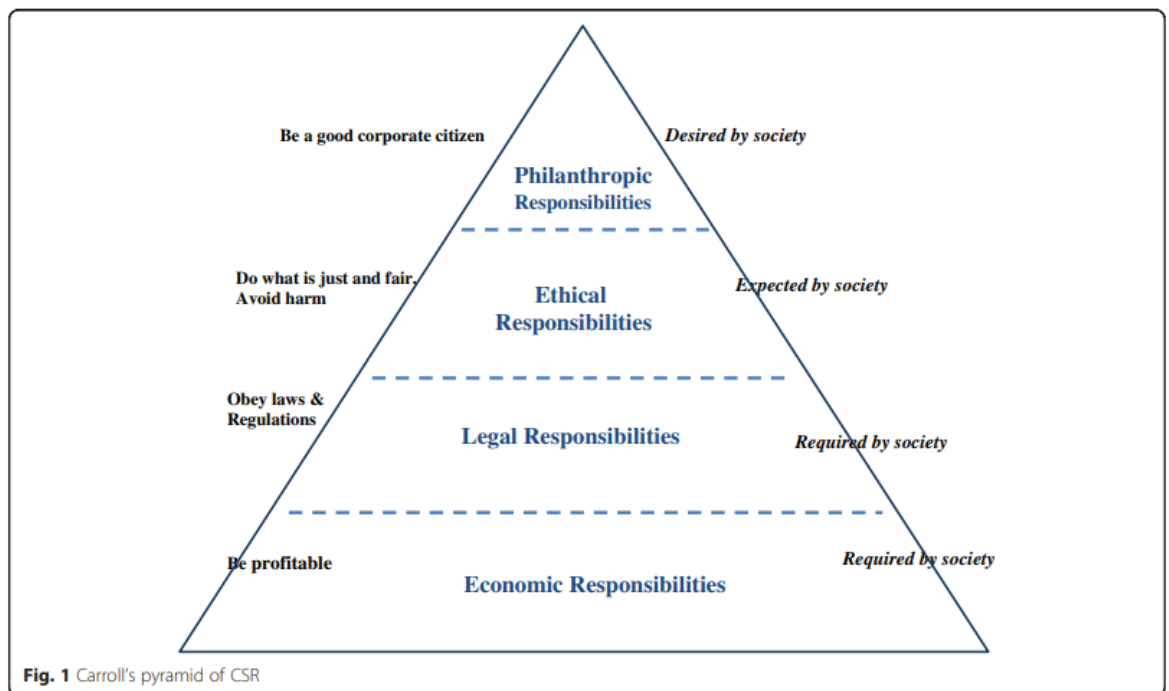
Figure 1: B. Carroll, 2016

This set of responsibilities as identified by Carroll collectively develops the foundation which helps to delineate in some detail and to frame or characterize the nature of businesses' responsibilities that the businesses owe towards society (B. Carroll, 2016). Of which, at the top of the pyramid, philanthropic responsibilities are responsibilities that are desired by society, but not necessarily required or expected from the company.

2.1.1. Economic Responsibility

The theory of economic responsibility forms the foundation of Corporate Social Responsibility, which may seem contrary to the concept of Corporate Social Responsibility itself. However, as correctly pointed out by Milton Friedman, this is a social purpose that is demanded and required by society of a company. While it may seem unusual to think about an economic expectation as a social responsibility, however, society expects and demands that business organizations to be able to sustain themselves by being profitable such that the owners and shareholders are incentivised to continue investing and maintaining operations (B. Carroll, 2016, p. 6). Therefore, it is only when a company can be financially profitable can the various stakeholders be incentivized to consider addressing their legal, ethical, and philanthropic responsibilities owed towards society.

2.1.2. Legal Responsibilities

Like everyone, all companies are required to act responsibly within a legal framework, both within their place of incorporation and the regions or jurisdiction that they operate in. Such legal

responsibilities may range from corporate taxes to other social responsibility obligations such as the Modern Slavery Act 2015 enacted by the British government. By being law abiding citizens, a company operates within the confines of legality and compliance is crucial. According to an Ernst & Young and Harvard Law School survey, legal departments are being asked to oversee environmental, social and governance issues like reputational risks. (Ernst & Young, 2022) Therefore, this forms an increasingly important part of Corporate Social Responsibility.

2.1.3. Ethical Responsibilities

In addition to legal requirements, society continues to also impose expectations from businesses in terms of their ethical behavior. Ethical responsibilities are intertwined with the code of conduct of the company, which includes "activities, norms, standards and practices that even though are not codified into law, are expected nonetheless" (B. Carroll, 2016, p. 6). However, the difference between legal and ethical responsibilities are often hard to delineate, given that legal responsibilities are premised on ethical considerations. However, ethical expectations imposed on companies by society goes beyond legal requirements but encompasses what is the "spirit of the law". Nevertheless, both sets of responsibilities contain a strong ethical dimension as required by society and the difference, while subtle, is dependent on what mandate society imposes on the company through law.

2.1.4. Philanthropic Responsibilities

While philanthropic responsibilities are "desired by society" and not mandatory, it is considered a responsibility in Carroll's Corporate Social Responsibility Pyramid. This is due to a general expectation from society that companies undertake such endeavors as part of their daily operations.

The Pyramid of Corporate Social Responsibility, while is divided into four parts, is designed to be integrated as a unified single whole. Therefore, while Economic Responsibilities are important and form the foundational basis of the pyramid in which the company can meaningfully contribute back to society, the entire pyramid is only complete with the layering of legal responsibilities, ethical responsibilities and philanthropic responsibilities. "A firm that is considered a good corporate citizen is one that is able to generate revenue and profits, at the same time being law abiding, conduct its business ethically and at the same time engage in philanthropic work" (B. Carroll, 2016, p. 4).

2.2. Stakeholder Theory

In the context of Corporate Social Responsibility, the countervailing theory is the Stakeholder Theory (Freeman, 1984). Often viewed as antithetical to the shareholder value maximization principle, the stakeholder perspective does consider the importance of shareholder value as a factor, but posits that shareholders are not the only group that is important to a successful business (Becker-Olsen & Hill, 2006; Gill et al., 2008; Freeman, Harrison & Zyglidopoulos, 2018).

Instead of focusing on promoting the maximization of profits, the Stakeholder Theory proffers that a successful company creates both financial and non-financial value for all key stakeholders (Freeman et al., 2010; Freeman, Harrison & Zyglidopoulos, 2018). Under the Stakeholder Theory, companies will need to consider the perspective of multiple stakeholders in order to generate value. Hence, a vital aspect of the stakeholder approach is the focus on considering through the lenses of multiple stakeholders, to allow the firm to harness a variety of views and information (Freeman, Harrison & Zyglidopoulos, 2018). As part of all big decisions taken by companies, there is always a moral or ethical component to them), not simply financially driven (Freeman, 1984). Having explored why the stakeholder theory is important, the next question that is considered is who is considered a stakeholder from the perspective of the company?
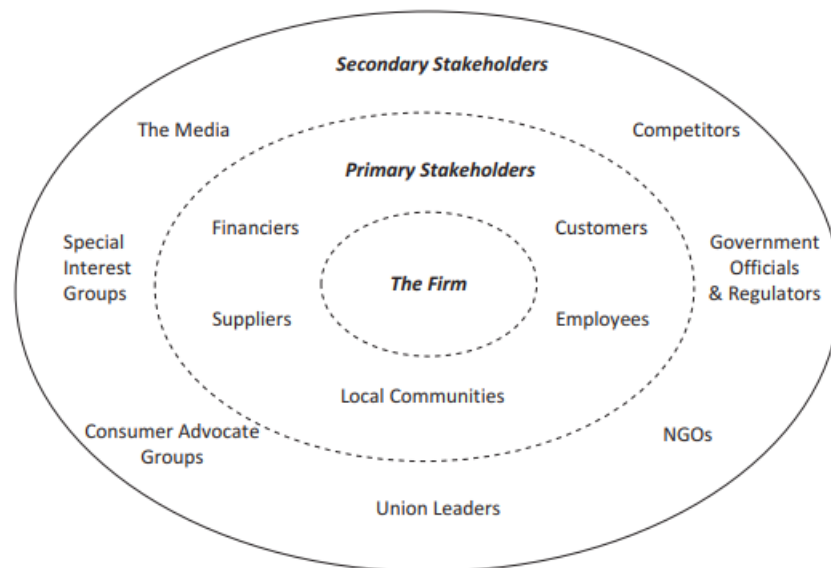
Figure 2: A basic stakeholder map (Freeman, Harrison & Zyglidopoulos, 2018, p. 16)

As seen in stakeholder map, there are two sets of stakeholders that the company has: "Primary and Secondary Stakeholders. Primary Stakeholders are groups that are fundamental to the value creation process of a firm" (Freeman, Harrison & Zyglidopoulos, 2018, p.16). Secondary stakeholders, on the other hand, are not directly involved in the value creation process, but have an "influence" stake in the firm (Freeman, 1984).

As part of interacting with the various stakeholders, the main approach used by companies is through a sustainability report (Herremans, Nazari & Mahmoudian, 2015; Hess 2007; Morsing and Schultz 2006). However, given that each company adopts a different perception towards value, disclosure and transparency towards their stakeholders, the way they engage stakeholders via their sustainability reports would invariably be different (Herremans, Nazari & Mahmoudian, 2015). This is especially given that each company is shaped by the industry norms, cultural makeup of the company and other influencing factors. It is for this reason that the thesis has elected to explore the

various sustainability reports produced by various cosmetic companies, for the purposes of exploring how these cosmetic companies seek to execute their stakeholder engagement strategies, and whether these strategies are different when it is an Asian company compared to Western company.

2.3 Environmental Sustainability

Before delving into the concept of Environmental Sustainability, it is important to first consider the concept of sustainability, which is the overarching framework of which Environmental Sustainability is a subset of. The concept of **sustainability** itself is said to be one of the most urgent and important mandate of a business (Carroll and Buchholtz, 2015). Yet, Sustainability as a theme "consists of three different pillars – environmental dimension, social dimension and lastly economic dimension" (Sahota, 2014, p.2-3).
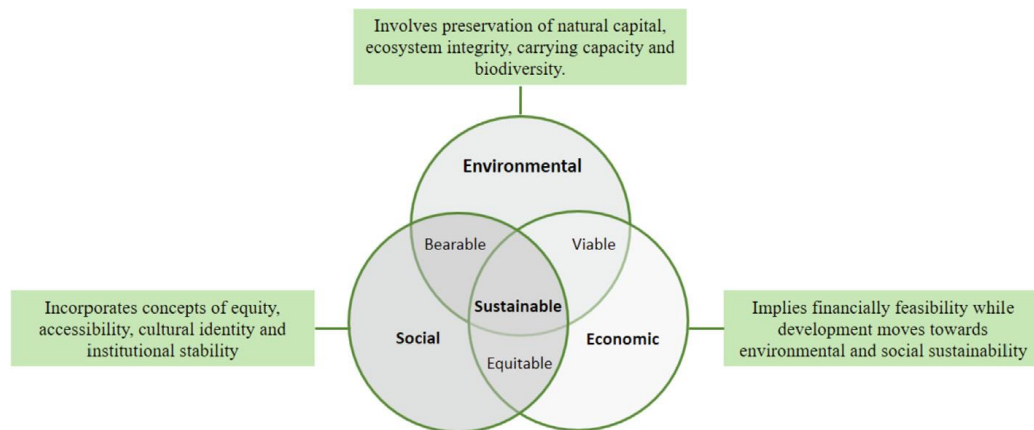
Figure 3: Three pillars of sustainability (Sahota, 2014)

(1)Economic dimension: this dimension is similar to theory of economic responsibility as earlier discussed in the concept of Corporate Social Responsibility. The idea is that development in any manner is financially feasible.

(2)Social dimension: this dimension focuses on society being cohesive to work collectively towards the furtherance of a common goal for the betterment of society.

(3)Environmental dimension: requires for society to ensure that the environment should not be sacrificed.

Espoused as the 'triple bottom line' approach, it encapsulates the "fundamentals of sustainability by measuring the impact a company has on society, including profitability and other values in environmental and social aspects" (Slaper & Hall, 2011, p.4). This theory shows the intersection between the three complementary dimensions of a company, showing how sustainability works from a company's perspective. Out of the three dimensions of sustainability, this thesis narrows in on the environmental dimension, for reasons as explored below.

The concept of Environmental Sustainability has been described as "*seeks to improve human welfare by protecting the sources of raw materials used for human needs and ensuring the sinks for human waste are not exceeded, in order to prevent harm to humans*" (Goodland and Ledec, 1987, p.34). This definition espoused captures the essence of what Environmental Sustainability is, and what is required by the human race in order to achieve it. However, since the start of the industrial revolution, the industrialization of economies have led to the increase in carbon footprint which has led to an increase in global temperatures and climate change. Humanity's influence on the climate is said to be the dominant cause of global warming, with warming reached approximately one degree above pre-industrial levels in 2017 (IPCC, 2018). Global warming as a phenomenon is one of the most pressing issues the world currently faces, making environmental sustainability the most pressing issue of the 21st century (McKibben, 2011). This increase in the global temperatures have led to an increase in sea levels, resulting in increase in frequency and severity of coastal flooding. (IPCC, 2018) Other effects to our nature include the melting of ice sheets across the world, which in turn leads to increase sea levels, therein exacerbating extreme sea events, leading to a vicious cycle.

Recently, there has been an ever-increasing number of corporates that have made commitments to carbon neutrality and net zero targets. The likes of Microsoft, Amazon, Shell, United Airlines and many more have make net zero commitments. Currently, 722 out of the 2,000 largest publicly traded companies globally by revenue has put in place some form of net zero strategy, covering ninety percent (90%) of the world's global gross domestic product (GDP) (Hale et al., 2022). It is for this very reason this thesis is choosing to focus on the Environmental Sustainability as the focus, given the urgency of the climate situation that the world faces today.

Like any other industries, cosmetic companies are also faced with the issue of global warming. Yet, there is a dichotomy between increasing sales to generate more profits, while at the same time utilizing less natural resources and contributing to the environmental degradation of the planet. The concept of Environmental Sustainability therefore includes the use of reusable materials, environmentally friendly materials or reducing the amount of negative externality caused to the environment. Environmental Sustainability can come in the form of sustainable packaging, responsible sourcing of ingredients and preserving of biodiversity, responsible production (Sahota, 2014). All of these collectively are meant to introduce sustainable practice into an industry as a whole. The thesis aims to consider how much are these sustainable practices encapsulated within the marketing campaigns by the various cosmetic companies that are considered.

Environmental Sustainability also feeds back to the concept of Corporate Social Responsibility, given that there have been a number of studies that showed having environmental foresight in crafting business strategies rewards a company both in terms of consumer relationships

as well as boosting the economical aspect of things (Cervellon, Hjerth, Richard & Carey, 2010). By doing so, Environmental Sustainability feeds into both the economic responsibility of a company by generating profits, whilst at the same time layering the ethical and philanthropic responsibilities in certain cases.

2.3.1 Environmental Sustainability in the Cosmetic industry

According to the Plastic Pollution Coalition, "the personal care and beauty industry produces more than 120 billion units of packaging every year globally" (Plastic Pollution Coalition, 2022). With the global cosmetics market expected to grow from US$507.8 billion dollars to US$758.4 billion by 2025 (Statista, 2022), there is likely to be even more plastic wastage generated by the cosmetic industry as it continues to grow. While packaging is a big issue, the cosmetic industry also contributes a raft of other environmental problems to the planet, including carbon emissions, energy consumption amongst other things. Yet, the use of cosmetic products has become an essentiality. As defined by the European Regulation 1223/2009, a cosmetic product is "any substance or mixture intended to be placed in contact with the external parts of the human body (epidermis, hair system, nails, lips and external genital organs) or with the teeth and mucous membranes of the oral cavity with a view exclusively to cleaning them, perfuming them, changing their appearance, protecting them, keeping them in good condition or correcting body odours" (European Regulation 1223/2009, p. 1). Therefore, this is a wide scope of products that cuts across a wide section of society, given its prevalence as necessities in everyday lives. Hence, the cosmetic industry has the capability to target a wide ranging audience.

The rise of Environmental Sustainability within the cosmetic industry has been due to several factors. According to Bom, Jorge, Ribeiro & Marto, the rise in focus on Environmental Sustainability in the cosmetic industry are three main reasons:

(1)Increase media scrutiny on sustainability issues resulting in increased consumer awareness regarding issues that are environmentally and socially related;

(2)Increased availability of raw materials catering for the ability to produce sustainable products; and

(3)Developments of laws and regulations as a drive of sustainability (Bom, Jorge, Ribeiro & Marto, 2019).

Of the three factors, the thesis narrows down to the increased consumer awareness and consciousness towards the theme of sustainability. Nevertheless, we first consider the other two reasons that are crucial in driving Environmental Sustainability in the cosmetic industry.

2.4 Brand and Image Construction through Sustainability Reporting

One of the dominant theoretical reasons behind Corporate Social Responsibility reporting is the *legitimacy theory*, where it is relating to an "assumption that the actions of an entity are desirable,

proper or appropriate within some socially constructed system of norms, values, beliefs and definitions" (Suchman 1995, p. 574). In fact, Corporate image is crucial as it generates positive public perceptions of the company (Pfau, Haigh, Sims, & Wigley, 2008). Hence, Sustainability Responsibility reporting has a positive effect on the company's image, due to the trust gained and earning favorable opinions from consumers (Wu, 2009). The use of Sustainability Reporting to enhance a company's corporate image is built on the alignment between an organization's corporate identity and how it chooses to project its image to stakeholders (Schlegelmilch & Pollach, 2005). For example, a customer's perception of the company's corporate social responsibility activities can help to increase the level of trust in the company (Wang, Liao, Wu & Le, 2021). Therefore, through proper Sustainability Reporting, a company can enhance their corporate image by raising public awareness of their corporate social initiatives (Pang et al., 2018).

However, Sustainability Reporting is also a self-reporting activity and identifies the company's "value systems and norms in its social system" (Calderon et al., 2021). On the other hand, Sustainability Reporting is also a means for companies to fulfill their Corporate Social Responsibility commitments (Jizi, 2017). It is also claimed that as a result of conflicting pressure from society, organizations engage in "hypocrisy and develop facades in their sustainability reporting", and the legitimacy of sustainability reporting suffers from ambiguity and as such, are not a good measure of a company's transparency and accountability on sustainability (Cho et al., 2015)

This highlights the socio-scientific relevance of the thesis as it seeks to examine how cosmetic companies incorporate environmental sustainability in their sustainability reporting, through an analysis of their Sustainability Reporting. In particular, the thesis contributes to the academic debate about the gap between sustainability reporting and the sustainability action by companies, which is examined in greater detail as part of greenwashing in Sustainability Disclosures.

As part of the selection of materials to be used in this research, sustainability reports and / or annual reports across the selected cosmetic companies have been chosen because these "annual reports are considered as the most credible and important source of information on corporate activities and performance in various fields" (Adams, Hill & Roberts, 1998, p. 5). Sustainability reports are used as the primary tool by companies as part of engaging their stakeholders. Usually, they include metrics to provide evidence to support certain environmental claims made by the companies and to avoid accusations of greenwashing (Sahota, 2014). Although a main metric used by companies as part of their sustainability reporting is the disclosure of their carbon footprint and their carbon footprint goals, there are a multitude of other metrics that can be used by companies in demonstrating commitment to environmental sustainability. Other metrics of Environmental Sustainability include sustainable packaging, responsible sourcing of ingredients and preserving of biodiversity, responsible production and even eco-design of products (Sahota, 2014). Therefore, in

conducting a qualitative content analysis of these sustainability reports, the thesis seeks to consider whether multiple metrics are developed by these cosmetic companies in their sustainability reports along with an in-depth analysis of such developments across the years as a demonstration of their progress as a company.

2.4.1. Materiality in Sustainability Reports

Initially a concept for financial reporting, materiality has now been widened to apply to sustainability reports. Materiality is a phenomenon that shapes a societal understanding of sustainability development through corporate communication (Brown and Dillard, 2014). The goal of materiality for sustainability is to distinguish between material issues of sustainability in nature and issues that are non-material (Jørgensen, Mjøs & Pedersen, 2021). This concept of materiality is considered to be the driver for which businesses decide what issues that choose to deal with in their non-financial reports as part of their stakeholder approach (Torelli, Balluchi & Furlotti, 2019). From a sustainability perspective, "materiality refers to issues that could have significant repercussions on the company" (NYU Stern Centre for Sustainable Business, 2019, p. 2). Materiality is defined by the Global Reporting Initiative as topics that reflect the company's significant economic, environmental and social impacts, along with substantively impact the decision making by various stakeholders (GRI, 2016). Yet, there is a difference between what the company's management deems material and what it is considered material by stakeholders (Torelli, Balluchi & Furlotti, 2019). Further, sustainability reports also need to cater for multiple stakeholders, without sacrificing one's interest for another. Therefore, when considering the various sustainability reports identified of the various cosmetic companies, this thesis will explore the materiality of the information that these cosmetic companies have provided in their sustainability reports, seeking to identify if there are any cross-cultural differences between Asian and Western cosmetic companies.

The time periods in which the sustainability reports are collated are from 2018-2021. The reason for choosing this time period specifically is because in 2018, the United Nations Intergovernmental Panel on Climate Change (**IPCC**) released a special report on the impacts of global warming of 1.5ºC above pre-industrial levels (IPCC, 2018). This special report highlighted the importance of capping global warming to 1.5ºC, and the need to increase ambitions to reverse the effects of climate change. Therefore, with the release of this special report, it should necessarily translate into additional actions taken by corporates and businesses alike in their sustainability ambitions. This thesis hence adopts the assumption that with the publication of the IPCC Special Report, it will result in a greater materiality in the respective sustainability reports that are explored thereafter.

2.5 Greenwashing in Sustainability Reporting

With the rise in sustainability reporting, there has also been a rise in accusations of greenwashing. According to Ogilvy and Mather, greenwashing practices have grown exponentially over the last decade (de Freitas Netto, Sobral, Ribeiro & Soares, 2020). Greenwashing is defined as "a gap between symbolic and substantive actions (Siano, Vollero, Conte & Amabile, 2017, p. 1). Greenwashing statements tended to use statements of greenness to satisfy stakeholders, but without actually fulfilling any of those statements (Siano, Vollero, Conte & Amabile, 2017, p.1). Greenwashing could also be seen as the "selective information disclosure of positive information about a company's environmental or social performance, while withholding negative information on these dimensions" (Lyon & Maxwell, 2011, p. 5). Two types of greenwashing could therefore potentially occur, "either greenwashing as selective disclosure, or greenwashing as a decoupling behavior" (de Freitas Netto, Sobral, Ribeiro & Soares, 2020, p. 6). A recent review of five hundred global websites showed that approximately 40% of green claims made on websites were greenwashing claims (Nemes et al., 2022). Greenwashing therefore poses a serious problem as to the credibility of such sustainability reporting. The issue of greenwashing is of huge concern, given that it will affect the materiality of the sustainability reporting, and in turn will result in the erosion of trust within the stakeholders. With the erosion of trust, it will result in green skepticism, which will affect the credibility of sustainability marketing by these companies (de Freitas Netto, Sobral, Ribeiro & Soares, 2020).

A TerraChoice study published in 2010 first indentified the six sins of greenwashing, which have since been cited by various other authors (de Freitas Netto, Sobral, Ribeiro & Soares, 2020; Orzel and Wolniak, 2019). These sins of greenwashing are identified as follows:

1. **Sin of Hidden Trade-off** – this sin is where the company suggest that their product is environmentally friendly based on one attribute, without communicating about the less friendly ones.

2. **Sin of No Proof** – Where the companies make a claim of environmental benefits which does not have evidence in support of the claim, or verification by a third party certifier.

3. **Sin of Vagueness** – Where companies make claims that are vague and undefined that its real meaning gets obscured from the consumers.

4. **Sin of Irrelevance** – This happens where companies make an environmental claim that is irrelevant from the consumer's perspective.

5. **Sin of Fibbing –** The sin of Fibbing occurs where the companies make environmental claims that are simply untrue.

6. **Sin of Lesser of Two Evils** – These are environmental claims that although are truthful, are harmful to the environment in other ways. (Orzel and Wolniak, 2019)

Therefore, as part of the review of the reports by these cosmetic companies on their sustainability efforts, this study will seek to take into account where there are any instances of greenwashing by the various cosmetic companies.

2.6. Differences in Sustainability Reporting between Asian and Western companies

2.6.1. Sustainability reporting by Asian and Western Companies

According to research conducted by Calderon et al. (2021), the reason for differences in how Sustainability Reporting content were reported can be attributed to the institutional values and influences of the firm, the expectation that society has for their companies exercising Corporate Social Responsibility, transparently accounting to society on the meeting of such expectations and the cultural impact on how such accounting should be conducted (R. Gary et al., 1997; Calderon et al., 2021). Given that each company's scope of what constitutes Corporate Social Responsibility is different, how Sustainability Reporting is conducted is dependent on how the company chooses it focus on (Birch & Moon 2004;).

Western companies focused on the issues of ensuring assurance and improving the quality of Sustainability Reporting (Castelo Branco et al., 2014; Al-Shaer, 2020; Calederon et al., 2021), Sustainability Reporting in CEO statements (Al-Shaer and Zaman, 2019) and gender diversity (Al-Shaer and Zaman, 2016; García-Sánchez et al., 2019). On the other hand, studies on Sustainability Reporting regarding Asian companies focused on the lack of Sustainability Reporting capability and practice in Asian firms (Amidjaya & Widagdo, 2019; Aggarwal & Singh, 2019). Companies in Asian countries with smaller market size and lower incomes focused their Sustainability Reporting on their contribution to alleviating poverty in their country, along with providing employment and general economic development (Calderon et al., 2021). Based on the above discussion, it can be delineated that the differences are set across different fronts, from the utilization of Sustainability Reporting as part of generating organization legitimacy to accountability and transparency of Sustainability Reporting (Calderon et al., 2021).

2.6.1. Possible difference in consumer attitudes between Asian and Western consumers

One of the main drivers of sustainability today is the change in consumer behavior, moving away from consumerism to ethical consumption. By featuring environmental, social and governance issues, the media has helped to facilitate the educating of the general public on these important issues. This in turn has led to consumers becoming more conscious as regards their carbon footprint, or to attempt to lead a more sustainable lifestyle generally. As consumers become increasingly aware of climate change as a problem, it has fueled the drive for consumers to purchase and demand for green products (Amberg, N., & Fogarassy C.,2019). This demand can be seen in the increase in sale of natural and organic cosmetics, where global demand for green cosmetic products has increased with the global cosmetic market share rising 5.5 percent more in 2018 compared to previous years

(Statista, 2019).

Although for most consumers, the primary factor for choosing a cosmetic product remains personal preferences, but environmental issues and ethical considerations are increasingly gaining importance as factors of consideration (Sahota, 2014, p.7). Therefore, the rise of environmental consciousness amongst consumers is an important driver for the demand for sustainable products. This has led to global sales of natural and organic cosmetic market to increase from less than $1billion in the mid 1990s to $9.1billion in 2011 (Organic Monitor, 2011).

One possible reason for the difference in Sustainability Reporting by Asian and Western consumers could be due to the rise in consumer attitudes towards green cosmetic products. A study of UK consumers found that "majority of the respondents viewed price and performance as the most important factors when choosing cosmetics instead of green elements" (Lin et al., 2018, p.1).

As a starting point, there is a large body of journal articles that show that there are fundamental differences between how Asians and Westerners think (Varnum, Grossmann, Kitayama & Nisbett, 2010). The cross-cultural difference can be described as part of the individual versus collective cultural dimension between the two groups (Cho & Park, 2012). An individualistic dimension is where the person focuses on individual needs, personal aims and is driven by self (Cho & Park, 2012). On the other hand, collectivism as a culture comprises on a group of people who are interdependent with one another, often sacrificing personal needs for a utilitarian purpose (Cho & Park, 2012). This cross-cultural differences are deeply embedded within both set of consumers, and therefore what each set of consumer demands from the cosmetic companies would be different. Such differences can be best encapsulated by the marketing strategies employed in cosmetic advertising, where "Asian models are used more frequently for hair and skin beauty products, whereas Western models were predominantly used for clothing advertisements" (Toland Frith, Cheng & Shaw, 2004, p. 58).

As such, this study posits that the cultural differences between both sets of cultures would affect how the cosmetic companies interact with their consumers as stakeholders, along with how the cosmetic companies are influenced when disclosing their sustainability efforts. In the Asian context, in particular Southeast Asia, several studies suggest that "80% percent of consumer said they preferred to buy from companies who are committed towards creating a positive social and environmental impact" (Polomski, D., Klukas, E., Mullen, M., 2021, p.226). This is contrasted to Europe where only 51% agreed and 44% for North America (Polomski, D., Klukas, E., Mullen, M., 2021). In particular, when examining ethical consumption in Asia, it was found that "consumers' motivation for sustainable consumption was strongly linked to communal practices" (Polomski et al., 2021, p.226).

The differences between both sets of consumer consciousness suggests that there are different amount of incentives for Asian and Western cosmetic companies to consider whether or not additional focus should be placed on Environmental Sustainability as part of branding. The greater

the consumer's environmental consciousness, the greater the impetus for cosmetic companies to showcase their 'green' credentials, which in turn will be translated into a greater emphasis in their sustainability reports.

2.7 Knowledge Gap

Additionally, both Lin et al., (2018) and Amberg & Fogarassy (2019) rely on quantitative statistical analysis, but do not delve deep enough from a qualitative sense to determine the underlying reasons for such consumer behaviors. This knowledge gap is important given that advertisements and marketing campaigns are designed to illicit subjective emotions from its intended audience, to generate brand warmth towards the particular product, therein making it more likely for the consumer to purchase the products. Therefore, a quantitative statistical analysis does not explore these subjective notions and emotions. This thesis tries to bridge the gap by conducting a qualitative content analysis, to try and identify these subjective feelings for the purposes of a more discursive discussion.

3.   Research Design

As mentioned above, the highlighted articles utilized a quantitative analysis for the purposes of data collection. However, this thesis will endeavor to use a qualitative content analysis by reviewing the various sustainability reports, for the reasons as set out below.

For this research, this study decided to use a qualitative research approach to perform a thorough study of the sustainability reports in order to get an in-depth analysis to address the research question. Qualitative research methods are valuable in providing rich descriptions of complex phenomena, eventually providing explanation to concepts (Szajnfarber & Gralla, 2017). It is for this reason that this thesis has chosen to adopt a qualitative analysis, to allow for more in-depth analysis of the marketing campaigns. The reason for choosing qualitative instead of quantitative analysis for this thesis is because quantitative research is unable to handle the "social and structural construction of its own 'variables' (Silverman, 2001). Qualitative analysis focuses more on interpretation and understanding of a particular construct, while quantitative analysis dealt with explanation, hypothetical proving and analysing statistics (Eriksson & Kovalainen, 2008). Therefore, the choice of qualitative analysis is for the purpose of embracing a holistic interpretation of the different themes explored by this thesis.

As part of qualitative analysis, "there are a number of approaches that this thesis can take, such as case study research, ethnographic research, grounded theory research, focus group research, action research, narrative research, discursive research, critical research and feminist research" (Eriksson & Kovalainen, 2008, p.3). In conducting a qualitative content analysis, it does not involve the study of linguistics, but the main spotlight is on social action that permeates through the use of language (Eriksson & Kovalainen, 2008). Given that the thesis is looking to conduct a cross-cultural analysis between Asian and Western cosmetic companies in their portrayal of Environmental Sustainability, a qualitative content analysis is the perfect option for the ability to consider the cultural implications of a particular marketing campaign.

Literature reviews on sustainability communications by cosmetic companies have shown few studies comparing between the Asian and Western market. As alluded to in the knowledge gap, most studies tended to focus on a singular market, and where a cultural comparison was conducted, it was done from the perspective of development and supply of fair-trade products in Northern and Southern Europe (Ozcaglar-Toulouse et al., 2006, p. 511), or in between North America and Europe (Bom, Jorge, Ribeiro & Marto 2019). However, the cultural differences between the Asian and Western hemisphere are one that is more distinct, with communal practices, ethnicity make-up and even financial homogeneity across society being vastly different. These differences have led to cosmetic companies using different types of marketing campaigns depending on the intended target audience. This is because the barometer and ideals of beauty are different based on the cultural

conception of beauty of the target audience (Xie & Zhang, 2013). Given that these cosmetic companies tend to structure their marketing campaigns based on their target audience, the conundrum that the thesis considers is whether this affects the Asian and Western companies' depiction of Environmental Sustainability as part of their marketing campaigns.

Indeed, the effectiveness of qualitative analysis in analyzing the cultural impact cannot be understated. Cultural differences are significant and the failed launch by Unilever of the Dove Real Beauty campaign in Russia, having relied on a quantitative survey research highlights this point. This was despite the fact that the campaign had yielded great success in North America and Europe (Belk, 2017). In fact, the reason for failure was the failure to consider the cultural norms in Russia, given that quantitative research is unable to illicit such a response. This therein highlights why the thesis has adopted a qualitative analysis of the marketing campaigns, given the clear cultural differences between Asian and Western demographics. It also highlights why the study looks into the differences between the Asian and Western cosmetic companies as part of its assessment of sustainability reporting, appreciating that there may be cultural subtleties that may underpin the differences.

Hence, this was the basis for the research question. With the advent of globalization and cross-cultural influences, our research aims to find out whether there are any particular strategies being employed by either region that can be adopted in other regions of the world. In addition, it is also the first research to study major Asian and Western beauty companies instead of comparing individual companies, one against another. This comparative analysis will provide a deeper understanding into sustainability commitments and strategies and enhance the comparative element for analysis.

3.1 Qualitative Content Analysis

Unlike quantitative content analysis, qualitative content analysis is made up of description of the manifest content and the interpretation of latent content (Graneheim et al., 2017). This analysis can be used to systematically describe the meaning of a set a of data (Mayring, 2010) in the case of our research, sustainability reports and annual reports. The advantage of using qualitative content analysis is that it reduces data, is systematic and flexible. While most content analysis focus on analysis through opening of text passages, qualitative content analysis focuses on specific meaning within the text, therefore reducing the amount of material being studied. The choice of meaning to be studied will be made with reference to the research question so that ultimately the data studied will shed light on the research question. One may think that reducing the data to be studied may result in the loss of concrete information from the material, however this compromise is rewarded with a more comprehensive comparison between different parts of the material and how the relate to one another. Secondly, qualitative content analysis is highly systematic. The steps and procedures used will be consistent regardless of the type of data used. This is useful for future research on cosmetic companies in other regions or comparing the sustainability efforts of cosmetic companies across

different time periods. Thirdly, there is a great extent of flexibility with qualitative content analysis as the coding frames can be concept driven and data driven.

According to Graneheim, the researcher can choose to follow closely to the text, focusing on concrete description and interpretation, or adopt a distance from the text, with more abstract descriptions and interpretations (Graneheim et al., 2017). The thesis will adopt a close approach, seeking to identify through the categorization and patterns of different terms used within the sustainability report, to identify the focus of Environmental Sustainability that the cosmetic companies have chosen to prioritize. There are "three methodological approaches for qualitative content analysis: inductive, deductive and abductive" (Graneheim et al., 2017, p.30). An inductive approach is text driven and in search for patterns (Graneheim et al., 2017). A deductive approach, on the other hand, is concept driven, where existing theories or explanations are tested against collected data (Graneheim et al., 2017). The third approach, "the abductive approach, is also known as the combined approach, employed for a more complete understanding and requires a back and forth between the two aforementioned approaches" (Graneheim et al., 2017, p.31). As part of this thesis, the study adopted the use of computer-assisted Qualitative Data Analysis Software (**CAQDAS**) to conduct an inductive analysis of the sustainability reports.

This is first done by identifying different patterns and constructs between the various reports, through the use of ATLAS.ti, which certain defined phrases and words are used by the cosmetic companies. The use of CAQDAS was due to the huge amount of raw data that the study dealt with, and the use of technology for the management of the volume of data would help the researcher avoid being overwhelmed (Lee & Esterhuizen, 2000). Further, it is said that CAQDAS can be useful to help create performance metrics for corporate social responsibility, environmental responsibility and other complicated business issues (Baugh et al., 2010).

According to Baugh et al. (2010), some manual processing must be intertwined with the use of CADQAS, as it "provides an intimacy with the data which leads to the drawing of credible and defensible conclusions" (Baugh et al., 2010, p. 70). Therefore, after the use of ATLAS.ti to identify the various defined phrases and words based on recurring frequencies, they are further categorized by the researcher into themes that are interrelated. As mentioned earlier, the concept of Environmental Sustainability in the cosmetic industry can be broadly categorized into a number of respective themes: carbon footprint, sustainable packaging, responsible sourcing of ingredients and preserving of biodiversity, responsible production. The prioritization of these themes by a particular cosmetic brand in their sustainability reports would highlight a particular focus by the company. The themes are based on a commonality between these various categories of words, which are used to generate a particular focus in an area of Environmental Sustainability.

3.2. Choice of Cosmetic Companies

For this research, this study decided to use major companies in the beauty world to conduct a deeper analysis on their sustainability efforts. The selection of cosmetic companies is important to reflect the full diversity of data sources (Schreier, 2012). These companies represent a wide variety of individual brands thus providing a comprehensive data source for this study. Although globalization and cross-cultural influence has resulted in beauty products transcending geographical boundaries by being commercially available worldwide, the two cosmetic companies that were chosen for each region, Asian and Western, were based on their country of origin. Given that the location of the headquarters is also where most ideas and decisions are birth from, decision-making styles are dependent on the values and beliefs of the people involved in the decision-making process on a company's sustainability efforts (Podrug, 2011, p. 407). Two companies per region were used in this study for the purpose of comparison.

In the Asian market, this study has decided to use (1) Shiseldo and (2) AmorePacific for this analysis. Shiseldo originated from Japan in 1872 and is one of the oldest cosmetics companies in the world. It started off as a pharmaceutical company in the 1800 and only started producing cosmetics in 1900. In the later years, Shiseldo created high-quality, modern, elegant cosmetics and communicated their offerings to the world in the Japanese sense of hospitality and customer-care to the broader world. Moving into the 21 century which faces greater emphasis on protecting the environment, Shiseido earned ISO 14001 certification for all of its manufacturing plants, a recognition of their commitment and dedication to conduct systematic environmental management. During a time of climate emergency Shiseido has shown its continuous commitment to build a more sustainable society. On the financial side, Shiseido witnessed a net sale of 920 billion yen in 2021, attributed by its Japan Business segment (32.9%) while the China Business contributed 25.9%.

AmorePacific is a South Korea-based cosmetics company founded in 1945. It started as a family business and progressively grew into a leading global cosmetics giant, especially in Asia. As of 2021, the company generated over 4.9 trillion Korean Won of revenue across its domestic and overseas subsidiaries (APgroup, 2021). Amorepacific's main business stream involves consumer packaged goods, hence they are committed to responsible brand activities and product development that reduce the negative impact on the environment through empowering their customers to become contributing actors toward addressing environmental and social challenges through mindful consumption. Some of the cosmetic companies under AmorePacific include, Laneige, Innisfree, Etude, Sulwhasoo, Sienu, HERA, Holitual, primera, IOPE, Hanyul, Lirikos, Espoir, STEADY :D, Odyssey, Mirepa, BroT!ps, Be ready and Mamonde. In addition, Amorepacific was selected as it has a gender balance audience given that some of its brands such as BroT!ps, Odyssey and Be ready are catered for men. Furthermore, within the brands catered for female, AmorePacific created products catering to different demographic. For example, Sulwhasoo with its tagline "Timeless wisdom,

ageless beauty" is more suited for older women whereas ETUDE house which usually has a more vibrant and lively marketing campaigns is suited for teenage girls.

For the western companies, this study has chosen to perform an in-depth analysis on (1) L'oreal and (2) Estee Lauder's sustainability report. Based on an analysis done by cosmetics technology in February 2021 on the top ten cosmetics companies in the world (based on revenue in 2020) L'oreal was ranked number 1, Unilever was second, P&G was third and Estee Lauder in fourth place (Cosmetics-Technology, 2021). Since Unilever and P&G are manufacturers of a diverse portfolio of consumer goods and not mainly cosmetic products, they have not been chosen for this study. For the same reason, Estee Lauder mainly sells cosmetic products, hence it was chosen for this study as the next most suitable beauty brand company with the second highest revenue in 2020.

L'oreal is a French brand with headquarters in Clichy, France. It was founded in the early 20th century and by 1950 had a team of 100 employees. Today, L'oreal is the biggest cosmetic company in the world, owning 35 global brands with an estimated staff strength of 85,400 employee worldwide. In 2021, L'oreal recorded a net revenue of 32.28 billion euros of sales (L'oreal, 2021). L'oreal's brands have been categorized into consumer products, L'oreal Luxe and Active Cosmetics. Under consumer products, these are common everyday brands such as Maybelline New York, L'oreal Paris, Garnier and NYX Professional Makeup. This segment caters to the younger and make up beginnges. Under L'oreal LUXE, some of the brands are lancome, Kiehl's Armani, Yves Saint Laurent, Shu Umera, Prada, Urban Decay, IT Cosmetics and Ralph Lauren Fragrances. These products cater to the higher end market, for consumers who are more advance in their make-up techniques. For the active cosmetic segment, the brands are La Roche- Posay, Vichy and Skinceuticals. This category focuses on skincare for healthy and beautiful skin, with more emphasis on dermatological and esthetics skincare. Due to the sheer number of individual brands under L'oreal, L'oreal is able to represent a large segment of the cosmetic industry.

Estée Lauder is an American brand based in New York, founded in 1946 by Estée Lauder. They have a unique reputation for innovation, sophistication and superior quality as such earning the reputation of being the world's most renowned beauty brands, producing iconic skincare, makeup and fragrances up till today. The company first started producing four products only: Cleansing Oil, Skin Lotion, Super Rich All-purpose Creme, and Creme Pack. In 2021, the brands under Estee Lauder reported a net revenue of 9.4 million US dollars for their skin care products while make-up products generated a net revenue of 4.2 million US dollars. There are many unique brands under Estee Lauder catering to different segments of the beauty industry, some examples include Tom Ford Beauty, Origins, Smashbox, MAC, Lamer,Glamglow, Dr Jar etct (The Estée Lauder Companies Inc, 2021).

3.3. Environmental Sustainability Targets in Sustainability Reporting

In addition to selecting companies from different countries to provide a more holistic representation, the four cosmetics companies selected have also publicly pledged various climate targets such as the science-based targets from the International Science Based Targets Initiative (**SBTI**) to reduce greenhouse gas emissions or the RE 100 in the case of AmorePacific (APgroup, 2021, News section). In the case of Estee Lauder, the cosmetic brand has pledged both to achieve SBTI targets along with participating in the RE 100, and announced that it achieved both targets in 2020, achieving both net zero emissions and sourcing one hundred percent (100%) of its electricity globally for its direct operations through renewable sources ("The Estée Lauder Companies Reaches Milestone Climate Goals", 2022). These targets and standards will provide a clear guideline for companies to reduce their emissions and change to renewable sources of energy. According to SBTI, a target can be considered as "science based" if the result is in line with the goals of the Paris Agreement, "to limit global warming to well-below 2°C above pre-industrial levels and pursuing efforts to limit warming to 1.5°C." (Science Based Targets, 2022). On the other hand, the RE 100 is a global corporate renewable energy initiative where businesses commit to using one hundred percent (100%) renewable electricity ("About us RE100", 2022). Having a standard set of targets will allow for fairer comparison of their sustainability efforts as reported in their sustainability reports. This is because companies that have set a climate target will need to demonstrate to their stakeholders that they are following through on their climate commitments, which would necessarily translate into greater materiality covering Environmental Sustainability in their sustainability reports.

3.4 Research Steps and Data Collection

The purpose of conducting a qualitative content analysis is to identify the key concepts in the communication of sustainability in the companies' sustainability report. According to Lemke (1993), "semantics looks into the meaning options of a language at word, word-complex, group, phrase, clause, and clause-complex ranks" (Lemke, 1993, p. 245). Text semantics seeks to bridge a language and its meanings.

3.4.1. *Data Analysis Procedure and Steps*

This section of the thesis sets out the data analysis procedure and steps undertaken by the researcher as part of the qualitative content analysis of the various cosmetic companies. This study looked for official company reports that state their sustainability efforts. Some company chose to have a dedicated report for this "sustainability report", "progress report" while others dedicated a section within its "annual report" to share on its sustainability efforts and goals. Only documents that had a minimum of two thousand words and more were acceptable as part of the data pool collected. As earlier mentioned, only documents that were from 2018 onwards were accepted. With the two sampling criteria, a total of twenty (20) documents were identified between the four cosmetic companies.

The top 2 largest cosmetic companies in the Asian and Western market were selected based on the size of its audience and the yearly revenue recorded. Once the companies have been ascertained, the next step was to locate the company's sustainability reports or annual reports. This was done through combining the companies' official website where the sustainability reports are usually published. The materials (sustainability report/annual reports) are then downloaded and stored on the researcher's desktop. The documents are categorized into two folders, based on the geographical regions of Western and Asian. Each of the report was labelled using the name of the brand or company and the year that the report was published. Following which, the reports were uploaded onto ATLAS.ti using the 'Document Manager" and four groups were created using the "Document Group", named after each company's brand.

Next, qualitative data analysis software was used for the analysis. ATLAS.ti which is a CAQDAS, was used to filter and categorize key ideas within the sustainability reports and package them into coding frames known as code groups. For our study, the version of ATLAS.ti used was 9.0.7 (1857) for the windows operating system. ATLAS.ti was this study's choice of CAQDAS as the author leveraged on his prior experience and knowledge of using this software. ATLAS.ti helps to discover actionable insights with intuitive research tools, making the analysis process a lot simpler with its algorithms. The figure below highlights the step-by-step approach taken by the researcher.

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┌─────────────────────┐
│ 1.Selection of      │
│ cosmetic companies  │
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          │
          ▼
┌─────────────────────┐        ┌──────────────────────┐       ┌──────────────────────┐
│ 2.Selection of      │        │ 11a. Differences     │       │ 12. Relating key     │
│ sustainability      │        │ within key           │─────► │ observations into    │
│ reports/annual      │        │ observations are     │       │ overarching key      │
│ reports (Reports)   │        │ identified in each   │       │ concepts             │
│ for the selected    │        │ report               │       └──────────────────────┘
│ cosmetic companies  │        └──────────────────────┘                   ▲
└─────────────────────┘                   ▲                               │
          │                               │                               │
          ▼                    ┌──────────────────────┐       ┌──────────────────────┐
┌─────────────────────┐        │ 10a. Identify        │       │ 11b. Define and      │
│ 3. Materials        │        │ differences within   │       │ analyse relevance    │
│ (Sustainability     │        │ Document Groups      │       │ of reports with key  │
│ materials) uploaded │        │ (Asian and Western)  │       │ concepts.            │
│ onto ATLAS.ti       │        └──────────────────────┘       └──────────────────────┘
└─────────────────────┘                   ▲                               ▲
          │                               │                               │
          ▼                    ┌──────────────────────┐       ┌──────────────────────┐
┌─────────────────────┐        │ 9. Frequency of      │       │ 10b. Conducting      │
│ 4. Documents are    │        │ terms used are       │─────► │ further content      │
│ categorized into    │        │ identified between   │       │ analysis on the top  │
│ four groups         │        │ "Code groups" and    │       │ four "code groups"   │
│ according to the    │        │ "Document groups"    │       │ with highest         │
│ company's brands    │        │ (Asian and Western)  │       │ frequencies, based   │
└─────────────────────┘        └──────────────────────┘       │ on key concepts      │
          │                               ▲                   │ identified in        │
          ▼                               │                   │ Theoretical          │
┌─────────────────────┐        ┌──────────────────────┐       │ Framework.           │
│ 5. Determine code   │        │ 8. Reviewing of      │       └──────────────────────┘
│ groups based on     │        │ "codes" and          │
│ overarching         │        │ categorization of    │
│ concepts. Defining  │        │ "codes" into "code   │
│ of code groups.     │        │ groups" based on     │
└─────────────────────┘        │ relevancy to         │
          │                    │ sustainability       │
          ▼                    │ concepts in          │
┌─────────────────────┐        │ Theoretical          │
│ 6. Utilising        │        │ framework            │
│ ATLAS.ti Concept    │        └──────────────────────┘
│ tool to identify    │                   ▲
│ key relevant        │                   │
│ concepts in reports │                   │
└─────────────────────┘                   │
          │                               │
          ▼                               │
┌─────────────────────┐                   │
│ 7. Determining      │                   │
│ relevancy of        │                   │
│ identified concepts │───────────────────┘
│ highlighted by      │
│ ATLAS.ti and        │
│ including           │
│ appropriate         │
│ concepts as         │
│ "codes".            │
└─────────────────────┘
```
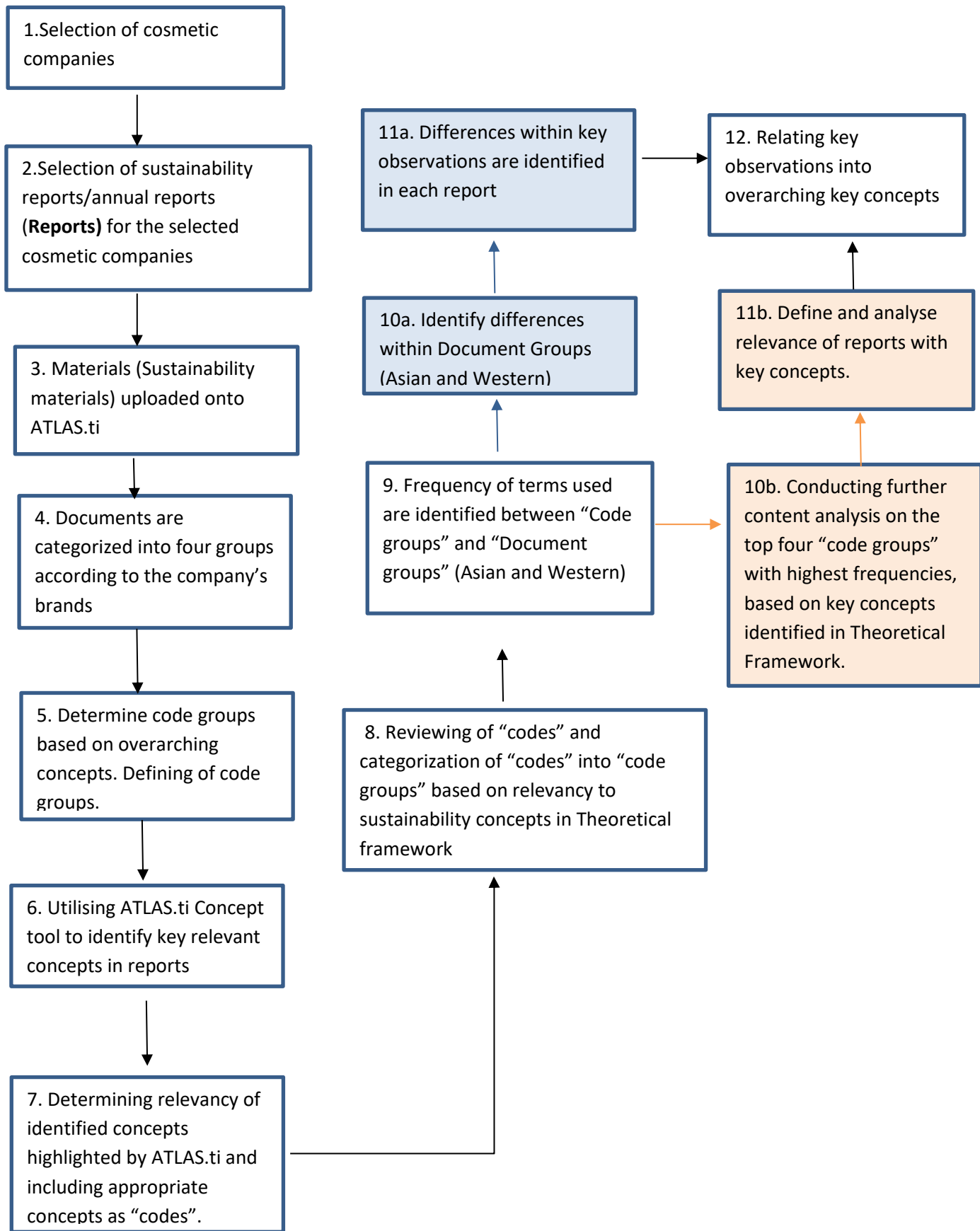
Figure 4: Procedure of data analysis

3.4.2. List of Documents

The list of documents that were uploaded onto ATLAS.ti for review are as follows, based on their respective document groups. There were a total of twelve Western Cosmetic Companies documents (L'Oreal – eight, Estee Lauder – four) and of the eight Asian Cosmetic Companies documents, (AmorePacific – three, Shiseido – five). The minimum requirement for a qualitative content analysis is ten to fifteen reports of at least 2,000 words. This thesis therefore meets the requirement having conducted a research with 20 reports, each with at least 2,000 words. In order to collate these lists of documents, the researcher searched within the respective cosmetic companies' webpages and through their sustainability page, accessed the following documents below, with the hyperlink provided in Table 1.

Western Cosmetic Companies	**L'Oreal**	L'Oreal for the Future Booklet
		L'Oreal Annual Report 2018
		L'Oreal Annual Report 2019
		L'Oreal Annual Report 2020
		L'Oreal Annual Report 2021
		L'Oreal Progress Report 2019
		L'Oreal Progress Report 2018
		L'oreal Sustainability Commitment 2013 – 2020 Closing Report
	Estee Lauder	Our fiscal 2021 Social Impact and Sustainability Report
		Our fiscal 2020 Citizenship and Sustainability Report
		Our fiscal 2019 Citizenship and Sustainability Report
		Our fiscal Citizenship and Sustainability Performance (2018)
Asian Cosmetic Companies	AmorePacific	2018 Amore Pacific Group Sustainability Report
		2019 Amore Pacific Group Sustainability Report
		2020 Amore Pacific Group Sustainability Report
	Shiseido	Shiseido Group Sustainability 2020

		Shiseido Group Sustainability 2019
		Shiseido Group Sustainability 2018
		Sustainability Report 2019
		Sustainability Report 2018

Table 1: List of Documents

The above list of documents were downloaded and uploaded into ATLAS.ti, and the researcher proceeded to engage in a computer assisted exploration of the data set in its entirety. Part of the process involved using the concept tool in ATLAS.ti, where this study first started by reviewing the suggested relevant concepts. According to ATLAS.ti, what makes a concept occurs in two steps: (1) important noun phrases are detected to identify frequently occurring concepts in the data and (2) the concepts along with the frequencies are tabulated across all the documents ("Find Concepts and Auto-code - ATLAS.ti 22 Mac - User Manual", 2022).

3.4.3. Code Groups and Code

The overarching theme for this research is on environmental sustainability. Hence the categories for the coding frame will be built around environmental sustainability. Having looked at the suggested concepts by ATLAS.ti, through a data-driven manner, a list of code groups was created as seen below. These code groups are further information mentioned in the material in relation to the main category on environmental sustainability. The code groups further elaborate on concepts that were earlier explored during the theoretical framework. All relevant codes within the sources were categorized into one of the code groups. This was the first step of the inductive approach, by identifying different patterns and constructs between the various reports, by looking at the trends at which certain defined phrases and words are used by the cosmetic companies. As mentioned earlier, steps 5-8 of Figure 4 identifies the steps undertaken by the research as part of its inductive approach.

The code groups are:

- Biodiversity
- Carbon Emissions
- Consumers
- Energy
- Environmental Impact
- Environmental Sustainability
- Net Zero
- Plastic Packaging

- Reduction
- Scope 2 Emissions
- Scope 3 Emissions
- Water

The list of the codes used is as follows, grouped within the respective code groups. In certain cases, the codes were included in multiple code groups due to the overlapping nature of the code groups.

Code Group	Definition of Code Groups	Codes
Biodiversity	Refers to different kind of nature, plants and animals that share the share a common environment	Biodiversity conservation efforts
Carbon Emissions	Release of carbon dioxide when burning of fossil fuels	Carbon Emissions reduction goals
		CO_2 Emissions
		Emission
		Emission Factors
		GHG Emissions Metrics
		Greenhouse Gas Emissions
		Net zero Carbon Emissions
		Our Net Zero Carbon Emissions Commitment
		The emissions
		Zero Emissions
		Zero Net Carbon Emissions
		Zero-Emissions
Climate Change	Change in global or regional climate patterns, largely attributed to an increase in	A Climate Change Initiative
		Address Climate Change

	greenhouse gases	Climate Action
		Climate Change
		Climate Change Impacts
		Climate Change Influences
		Climate Change Measures
		Climate Change Risk
		Climate Change Related Issues
		Combat Climate Change
		Global Climate Change
		Life-threatening Climate Change
		Our Climate Change Scenario Analysis
		Our Long-Term Climate Change Mitigation
		Our Overarching Climate Change Objective
		The Climate Change-Related UN Global Compact Initiative
		Impending Climate Change
Consumers	Person who purchases a good or service	Consumer Awareness
		Consumer Demand
		Consumer Expectations
Energy	Power needed to generate movement or heat	Conserving Resources
		Energy
		Energy Consumption

		Energy Efficiency
		Renewable Energy
		Renewable Energy Credits
Environmental Impact	Consequences on different component of the environment	Conserving Resources
		Environmental Changes
		Environmental Efforts
		Environment-Friendly Products
		Impact
		Our Plastic-Reduction Efforts
		The Environment
Environmental Sustainability	Practice to live and interact with the environment (planet) in a responsible manner	2020 Sustainability Goals
		Environmental Changes
		Environmental Efforts
		Sustainability Goals
		Sustainability Packaging
		Sustainability
		Sustainable Change
		Sustainable Development Goals
Net Zero	Cutting down greenhouse gases to as close as zero	Net Zero Carbon Emissions
		2020 Net Zero Goal
		Our Net Zero Carbon Emissions
		Our Net Zero Goal
		Zero Emissions
		Zero Net Carbon Emissions

Plastic Packaging	Using materials containing plastic to contain, wrap, cover, handle, deliver a product	100% Sustainable Packaging
		All Plastic Waste
		Better Plastic Materials
		Biodegradable Plastic Fixtures
		Biodegradable Plastic Materials
		Eco-friendly Packaging
		Excessive Plastic Waste
		Ocean Plastic
		Marine Plastic Waste
		Our Plastic Reduction Efforts
		Sustainable Packaging Goals
		Packaging
		Plant Based Plastic
		Plastic Packaging
		Recycled Plastic
		Sustainable Plastic
		Sustainable Packaging
		Recycled Waste Plastic
		Used Plastic
Scope 2	indirect emissions associated with the production of energy consumed by the company	Energy
		Energy Consumption
		Energy Efficiency
		Renewable Energy
		Renewable Energy Credits

		Scope 2 Emissions
		Scope 2 Market-Based GHG Emissions
Scope 3	indirect emissions associated with the company's activities that are not owned or controlled by the company	3 GHG Emissions Scope 3 Emissions
Water	H2O	Water Resources

Another layer of analysis was also included, whereby this study divided the collated data into the "Asian Cosmetics" Document Group and the "Western Cosmetics" Document Group. The rationale behind this, as earlier explored in the thesis, was to identify whether there were any differences between how Asian and Western cosmetic companies conveyed their sustainability efforts to their stakeholders. Therefore, the Asian Cosmetic bucket consisted of the documents belonging to Shiseido and AmorePacific, while the Western Cosmetics bucket consisted of documents belonging to L'oreal and Estee Lauder. A second diverging analysis was also conducted on the top four code groups that had the highest frequencies.

Lastly, this study then proceeded to define a set of four broader themes, based on key concepts were earlier analyzed within the theoretical framework. As part of this qualitative content analysis, this study considers if the results derived were able to contribute to the key concepts amongst academic researches. The prioritization of these themes highlighted in the theoretical framework by a particular cosmetic brand in their sustainability reports would highlight a particular focus by the company. The themes are based on a commonality between these various categories of words, which are used to generate a particular focus in an area of Environmental Sustainability.

4. __Data Results__

Having divided the various codes into the respective code groups, this study then used the ATLAS.ti to search for the number of frequencies these code words are used within the cosmetic companies collectively.

Code Groups	Asian Cosmetic Companies	Western Cosmetic Companies	Total
Biodiversity	3 (0.12%)	0 (0%)	3
Carbon Emissions	239 (9.24%)	202 (7.81%)	441
Climate Change	35 (1.35%)	8 (0.31%)	43
Consumers	2 (0.08%)	19 (0.73%)	21
Energy	157 (6.07%)	113 (4.37%)	270
Environmental Impact	209 (8.08%)	319 (12.33%)	528
Environmental Sustainability	202 (7.81%)	270 (10.44%)	472
Net Zero	2 (0.08%)	16 (0.62%)	18
Plastics Packaging	214 (8.27%)	258 (9.97%)	472
Scope 2	155 (5.99%)	115 (4.45%)	270
Scope 3	20 (0.77%)	6 (0.23%)	26
Water	21 (0.81%)	2 (0.08%)	23
Total	1259 (48.67%)	1328 (51.33%)	2587 (100%)

A total of 2,587 codes were being analyzed from the 20 reports for both Asian and Western cosmetic companies. Of which 1,259 or 48.67% were from reports from Asian cosmetic companies while 1,328 or 51.33% were from Western cosmetic companies. Therefore, in terms of the overall proportion of key concepts surrounding environmental sustainability, Asian and Western cosmetic companies fair the same. Next, the study delves into the comparison for each code group between Asian and Western cosmetic companies. For biodiversity, there were 3 codes identified among reports from Asian cosmetic companies as compared to 0 among Western cosmetic companies.

Although the concept of biodiversity only forms 0.12% of the overall, it implies that Asian cosmetic companies are more comprehensive in their sustainability efforts – not only focusing directly on the supply chain but also other areas in the environment which may inadvertently be affected. In terms of carbon emissions, unsurprising this has the third highest code among all the code grounds. There are 239 (9.24%) codes identified in Asian cosmetic companies report and 207 (7.81%) in Western cosmetic companies' report. For codes relating to climate change, there are 35 (1.35%) codes identified in Asian cosmetic companies report and 8 (0.31%) found in Western cosmetic companies' report. A report that is more consumer-centric will have more codes relating to consumers. Asian cosmetic companies identified 2 (0.08%) codes while Western cosmetic companies identified 19 (0.72%) relating to consumers. In terms of energy, Asian cosmetic companies identified 157 (6.07%) codes while Western cosmetic companies identified 113 (4.37%). Codes relating to environmental impact had the largest proportion among the reports studied. Of which, 209 (8.08%) came from Asian cosmetic companies while 319 (12.33%) came from Western cosmetic companies. Environmental sustainability also ranked high on the list with Asian cosmetic companies identifying 202 (7.81%) codes and western cosmetic companies identifying 270 (10.44%). In Asian cosmetic companies, the scientific term net zero was less commonly used (2 (0.08%) codes) as compared to western cosmetic companies (16 (0.62%) codes). In terms of plastic packaging, Asian cosmetic companies sighted 214 (8.27%) codes while western cosmetic companies had 258 (9.97%) codes. There were more mentions of codes around Scope 2 than Scope 3 emissions. Asian cosmetic companies identified 155 (5.99%) of codes surrounding Scope 2 emissions while Western cosmetic companies identified 115 (4.45%) in the same area. Regarding Scope 3 emissions, Asian cosmetic companies identified 20 (0.77%) of codes while Western cosmetic companies had 6 (0.23%). Lastly for the concept surrounding Water, Asian cosmetic companies identified 21 (0.81%) codes while Western cosmetic companies identified 2 (0.08%).

As part of the analysis, this study noted a number of observations that feeds into the overall debate between the differences between Asian Cosmetic Companies and Western Cosmetic Companies. In analyzing the data above, this study seeks to make key observations that will help to set the exploratory scene for this study to delve deeper to conduct a qualitative content analysis on the report, based on the observations. The code groups that were identified the most amongst all the cosmetic companies were the following: (1) Carbon Emissions, (2) Environmental Impact, (3) Environmental Sustainability, and (4) Plastics Packaging. Therefore, these four code groups were subsequently analyzed in greater detail through a consideration of the context in which the terms were used.

Additionally, this study also conducted a review of the remaining code groups to evaluate and identify findings between the Asian Cosmetic Companies and Western Cosmetic Companies.

4.1 Main Findings

Before dealing with the various observations that were highlighted above, the thesis seeks to first explore the main findings that were highlighted in the data. A commonality across all the cosmetic companies is the focus on a few same concepts – Carbon Emissions, Environmental Impact, Environmental Sustainability and Plastic Packaging. It seems to suggest that these are indeed the main concerns in relation to Environmental Sustainability that these cosmetic companies have recognized and identified and incorporated into their sustainability reporting. To understand the materiality of the sustainability statements made by these Cosmetic Companies, this study conducted a review of the relevant quotes in which the code groups were identified.

4.1.1 Carbon Emissions

After the review of the various reports by the cosmetic companies, this study observed that for carbon emissions, the Asian Cosmetic Companies and the Western Cosmetic Companies took different approaches as part of incorporating environmental sustainability into their sustainability reporting. For Western Cosmetic Companies, the focus was on announcing the percentage of reductions that were achieved, highlighting their achievements achieved of the particular reporting year. However, there was a lack of detail as to how these achievements were achieved by the company. This is contrasted against the level of information provided by the Asian Cosmetic Companies, where the Cosmetic Companies entered a level of granularity to explain how the brand's particular efforts contributed to the eventual overall achievement of the targets that the company had set. This was important given that it illustrated a level of materiality and transparency in the sustainability reporting.

For example, Shiseido in describing their efforts to combat carbon emissions, provided the details as to how they were going to do so, such as halting deforestation that arises out of their activities, through the ethical procurement of palm oil and paper for the manufacturing of Shiseido products (Shiseido, 2019). Another example is how when Shiseido looked to address the issue of Carbon Emissions, looked to improve energy efficiency at all their factories for the purposes of reducing its carbon footprint, and in doing so provided examples of such efforts – introducing high efficiency equipment and switching to energy sources with lower Environmental Impact (Shiseido, 2020). Similarly, AmorePacific had provided an example of how they had reduced the carbon emissions of their OSULLOC brand by measuring its carbon footprint and event obtaining a certification from Carbon Trust in 2020 for its reduction efforts (AmorePacific, 2021).

This is compared to the main details provided by the likes of L'Oreal and Estee Lauder, where the main information provided by the cosmetic companies were mainly how many percent of reductions would they make, along with how many percent of reductions have they achieved. From a corporate communications perspective, whilst the numbers seem to indicate that the company was seeking to reduce their carbon footprint, the veracity of such statements cannot be ascertained from

the stakeholder's perspective. Also, as companies now have more avenues to communicate their sustainability efforts, some spend more time overselling their Environmental Sustainability efforts, where these self-disclosures tend to be skewed towards greenwashing (In & Park, 2019). Further, with the providing of numbers and figures, these are information that the consumers have no intuitive reference point to help them understand the level of impact (P. Pucker, 2021).

Therefore, the manner in which the Asian Cosmetic Companies have portrayed their Carbon Emissions efforts, allows for the stakeholders to be able to appreciate the level of effort that has gone into the sustainability work done by the companies.

4.1.2 Environmental Impact

As part of Environmental Impact, the cosmetic companies all shared a common acceptance that there was a need to reduce the amount of impact that they cause to the environment. As part of these efforts, there is an appreciation of the need to reduce the amount of single use plastics as part of their packaging. This ties in with the code group of Plastic Packaging, which will be explored in greater detail later. As part of the Environmental impact, the cosmetic companies also made statements about their Environmental commitments. For example, Shiseido in 2019 made commitments in five key areas: (1) to be carbon neutral by 2026, (2) to reduce water consumption by 40% by 2026, (3) to send zero waste to landfills by 2022, (4) to use 100% sustainable palm oil by 2026 and (5) to only use 100% sustainable paper for product packaging by 2023 (Shiseido, 2019). L'Oreal on the other hand, sought to ensure a proper assessment of the carbon footprint of their products, in order to assess the level of Environmental Impact (L'Oreal Progress Report, 2019), along with conducting lifecycle assessments of its products.

According to In & Pak (2019), there is a likelihood of companies avoiding talking about their sustainability failures, or to remain silent in their sustainability reporting of negative impacts (In & Pak, 2019). Therefore, from this research's perspective, when a corporate chooses to voluntarily disclose a negative environmental impact as part of its sustainability reporting, it highlights transparency and accountability to its stakeholders. This was evident in Estee Lauder's reporting, where they acknowledged that in 2019, they had experienced an increase in absolute emissions from their owned and operated facilities due to increased manufacturing (Estee Lauder, 2019). This willingness to admit to failures is crucial in ensuring that the take accountability to their stakeholders seriously, instead of simply painting a rosy picture for their stakeholders.

4.1.3 Environmental Sustainability

As part of Environmental Sustainability, there are a number of different activities and things that the cosmetic companies have used as part of the overall incorporation of environmental sustainability into their sustainability reporting. One interesting example was provided by Estee Lauder where the cosmetic brand appointed sustainability champions within their offices globally to

help implement best practices for green offices and to incorporate this responsibility into their personal development plans (Estee Lauder, 2021). Shiseido launched committee focusing on sustainability, aimed to ensure that the company reacted prompted to sustainability issues and to increase understanding and cognizance (Shiseido, 2019). Similarly, AmorePacific has a Sustainability Management Committee which top brass of the company participates in, making decisions on sustainability strategies (AmorePacific, 2021), and a Sustainability Management Division was established in 2018 (AmorePacific, 2021).

As part of Environmental Sustainability, the companies have collectively introduced innovative and a myriad of different plans to sure and integrate Environmental Sustainability to be part of the organization. Certain cosmetic companies chose to report their sustainability efforts in a separate sustainability report. Others, provided their sustainability disclosures and commitments within their Annual Reports, as part of standard disclosure obligations that they have. These companies may choose to also provide additional disclosures by disclosing to their stakeholders by way of a Progress Report. According to the Recommendations of the Task Force on Climate-related Financial Disclosures, published in 2017, one of the recommendations was for companies to make their climate disclosures as part of their mainstream financial filings, instead of having a separate report for their sustainability efforts ("TCFD", 2017). Based on this recommendation, a quick comparison was conducted across the four companies that were selected. Of which, only L'Oreal has complied with this recommendation amongst the four cosmetic companies. The remaining three, Shiseido, AmorePacific and Estee Lauder continue to produce separate sustainability reports to provide information on their climate disclosures and sustainability efforts. Before entering into the respective reports and providing a detailed qualitative content analysis, the fact that L'oreal made their sustainability announcements via their annual report suggests that L'oreal has elevated their climate disclosures and sustainability commitments to the same level as their financial disclosures and reporting.

4.1.4 Plastic Packaging

A major component in every single cosmetic brand's sustainability pathway, the issue of plastic packaging is one that each and every cosmetic brand included as part of incorporating environmental sustainability in their sustainability reporting. As earlier mentioned, one of the biggest pollutions contributed by the cosmetic industry is the amount of plastic waste that it generates each year. As part of ensuring a more sustainable packaging, both Estee Lauder and Shiseido have sought to incorporate the 5Rs (recyclable, refillable, reusable, recycled or recoverable) into the development of their packaging (Estee Lauder, 2021. Shiseido, 2020) Shiseido introduced the packaging development policy called the "Shiseido's 5Rs", along with setting a target of 100% Sustainable Packaging by 2025 (Shiseido, 2020). A similar plan was also introduced by L'Oreal, where by 2025, 100% of their plastic packaging will be refillable, reusable, recyclable or compostable (L'Oreal,

2018). Actual examples of real life implemented solutions were also provided, where for Estee Lauder, consumers had the option to bring their perfume bottles back and refill the for 20% of the retail pricing (Estee Lauder, 2021). AmorePacific provided a number of examples throughout their various companies of their use of sustainable plastic, from allowing for the refill of products Ugly Carrot, to the group's campaign of collecting empty bottles called GREENCYCLE, which collected 204 tons of plastic in 2020 and reduced 77.4 tons of by using Post-Consumer Recycled plastic for the packaging of their products (AmorePacific, 2021). On the other hand, Shiseido had a focus on research and development, by developing alternative plastics that had a reduced environmental impact, along with biodegradable packaging (Shiseido, 2020). In fact, the development involved a unique technology of biodegradable polymer that would decompose in freshwater or seawater (Shiseido, 2020). This would then help to reduce the problem of marine plastic waste. The multitude of efforts showcased by the various cosmetics companies suggest that this is an area that is recognized by the industry as a problem that requires their sustainability efforts.

4.1.5 Biodiversity Efforts

As a starting point, we note that only Asian Cosmetic Companies had a focus on Biodiversity efforts as part of incorporating environmental sustainability in their sustainability reporting. As part of this, Shiseido acknowledged the level of impact that its production has on the biodiversity of the earth (Shiseido, 2019), while AmorePacific invested heavily into biodiversity conservation efforts (AmorePacific, 2021). This is important as cosmetic companies are huge users of palm oil, given that it is an essential ingredient of beauty products (World Wildlife Fund, 2022).

4.1.6 Climate Change

In terms of considering the effects of Climate Change, Asian Cosmetic Companies paid more attention in their reports to the effects of climate change, where they highlighted the "seriousness and urgency of climate change (AmorePacific, 2019), recognized that Climate Change is an issue that will affect the business operations and strategies in the future (Shiseido, 2019). Estee Lauder also recognized that their operations and facilities were affected by the effects of climate change (Estee Lauder, 2021). However, the frequency in which the reports highlighted the importance of climate change were lower than that of Asian Cosmetic Companies.

4.1.7 Consumer's Awareness on Climate Change

Collectively, the two code groups suggested that Western Cosmetic Companies were more conscious as the rise of consumers' awareness of climate change. Of which, the data collected from the Western Cosmetic Companies indicated that L'Oreal and Estee Lauder were playing a role at raising consumer awareness on climate change. For example, a foundation under the Estee Lauder companies provided financial support to organizations to educate on the importance of ocean conservation (Estee Lauder, 2020), while 57% of the companies under L'Oreal had conducted a

consumer awareness initiative (L'Oreal Progress Report, 2019). This suggests that Western Consumer Companies are more aligned with the Stakeholder Theory, with the willingness to engage with its consumer base to increase awareness towards climate change.

On the other hand, while Asian Cosmetic Companies recognized the increase in demand by consumers for them to be more responsible environmentally (AmorePacific, 2020), but unlike the Western counterparts, did not engage their consumer base to increase awareness on the topic of climate change. Shiseido did however recognized that there was more consumers that were placing environmental impact as a priority in their purchase intention, and sought to cater to these consumer base by introducing new companies with a focus on sustainability (Shiseido, 2019).

4.1.8 Net Zero

Another key observation is the frequencies in relation to Net Zero. As mentioned earlier, Net Zero is a key sustainability target set by corporates pledging to reduce their absolute carbon emissions till they reach Net Zero. Of the 18 frequencies, 16 were in Western Cosmetic Companies. This highlights an important part about accountability and transparency, where the Western Cosmetic Companies have made public proclamations about their sustainability targets so that their stakeholders are able to hold them accountable. On the other hand, Asian Cosmetic Companies reports indicate that the cosmetic companies remain largely non-committal as to the level of sustainability efforts that the company is committing to. The non-committal nature of their sustainability targets would also mean that it is harder for their stakeholders to be able hold the company accountable. This suggests that Asian Cosmetic Companies are at a more nascent stage of the sustainability journey as compared to their Western counterparts, given that they have yet to provide an accountable target of which their stakeholders are able to hold them accountable to.

However, what is interesting to note is that the Net Zero targets announced by the Western Cosmetic Companies do not actually cover their entire carbon footprint as an organization. Instead, Estee Lauder's Net Zero commitment only covers its Scope 1 and Scope 2 emissions and does not cover their Scope 3 emissions (Estee Lauder, 2020). This observation ties in with the fact that the results shows that Asian Cosmetic Companies, while they do not make similar commitments, do actively seek to reduce their Scope 3 emissions, despite them being outside of their operational control. According to the Times, "if a company does not include scope 3 emissions in its carbon accounting, it is essentially useless" (Barry, 2021). This is important given that for most corporates, Scope 3 Emissions account for most of a corporates' emissions, sometimes even reaching up to 85% to 90% of the company's overall carbon footprint (Herdman, 2022). According to Thomas Hale, an Oxford Professor and contributor to the Net Zero Tracker, "[a] lot of businesses and investors are setting these kinds of targets" with these targets being Net Zero targets, but are doing it, for public relations reasons (Barry, 2021).

In fact, this problem of greenwashing has become so prevalent that the United Nations

Secretary General announced the convening of a group to police net-zero commitments (Metcalf, 2021). This problem also highlights the differences in materiality between the reporting of sustainability by both Western and Asian Cosmetic Companies. Based on a review of the reports, there is an increased focus by Asian Cosmetic Companies in dealing with their Scope 2 and Scope 3 emissions, which suggest that more effort is being done by the Asian Cosmetic Companies than their Western counterparts in terms of dealing with their emissions.

4.1.9 Scope 3

The focus by Asian Cosmetic Companies on their Scope 3 Emissions compared to the Western Cosmetic Companies suggests a strong message; that Asian Cosmetic Companies are taking responsibility of what is outside of their operational control. Therefore, while in our earlier example Estee Lauder had announced that they achieved net zero emissions for their direct operations (Scopes 1 and 2), it does not deal with the hardest to abate carbon emissions, which belong to Scope 3 of the company. AmorePacific in their calculation of the company's absolute emissions, did include the calculation of other indirect emissions (Scope 3 emissions) (AmorePacific, 2018).

4.1.10 Water

Lastly, it is noteworthy that there is little to no discussion within the Western Cosmetic Companies on water, despite the fact that water is a critical resource in beauty products (Sarkic & Stappen, 2018). Additionally, the issue of water as a resource is something that is a huge part of Environmental Sustainability itself. Most of the occurrences in relation to water as a resource are found in Asian companies. For example, AmorePacific introduced the 'Refill Me' campaign to support water deficit countries and conserve water resouces (AmorePacific, 2018), along with aiming to reduce water consumption within its production (AmorePacific, 2019). Other initiatives that were implemented as part of conserving water included the building of more rainwater storage in their facilities, to collect greater amounts of rainwater (AmorePacific 2019). Similarly, Shiseido announced plans to reduce water consumption across its entire group by 40% compared with its 2014 levels (Shiseido, 2019). Given the relative importance of water as a scarce natural resource and an important ingredient for cosmetic products, a greater emphasis should be placed on this as part of Environmental Sustainability.

5.   Differences in Sustainability Reporting by Asian and Western Cosmetic Companies

Having analyzed the results and identified main findings, the next part of the qualitative content analysis is to consider how these findings showcase differences in how Asian and Western Companies conduct their Sustainability Reporting. These differences as identified in the content analysis lend themselves to the discussion of theoretical implication in light of the previous theories identified by the research in the theoretical framework.

5.1 Stakeholder Theory
As earlier mentioned, given that each company takes on a different perception towards value, disclosure and transparency towards their stakeholders, how the stakeholders are engaged via their sustainability reports would invariably be different (Herremans, Nazari & Mahmoudian, 2015). Therefore, the various cosmetic companies highlighted a level of importance as to the adherence to the Stakeholder Theory. Where the cosmetic companies place a greater emphasis on the importance of their stakeholders, the more likely the cosmetic brand will be in actively engaging with their stakeholders as part of communicating their sustainability efforts and to develop their sustainability commitments.

How the essence of Stakeholder Theory is communicated in the sustainability reporting by Western Cosmetic Companies is by highlighting a huge amount of information and percentages regarding the achievements in terms of sustainability over the previous year. However, this is contrasted with how Asian Cosmetic Companies communicate in their sustainability reporting, where Asian Cosmetic Companies went beyond just providing of numerical information to their stakeholders, but sought to inform the stakeholders how they intended to achieve such targets, or the individual actions that they have undertook in order to achieve a particular target. Additionally, AmorePacific had conducted a materiality analysis to better appreciate the interests of their stakeholders so that they are able to better succeed in meeting their sustainability commitments (AmorePacific, 2018).

This difference between the two categories of Cosmetic Companies demonstrates the application of the Stakeholder Theory as part of sustainability reporting. Asian Cosmetic Companies demonstrate a greater degree of engagement of their stakeholders via their sustainability reports, seeking to provide real examples of what the company has been doing on the ground in terms of achieving the reductions and targets that have been set.

5.2 Environmental Sustainability
The concept of Environmental Sustainability is similar from both Asian and Western Cosmetic Companies, with recognition of climate change being the problem and the need for sustainability efforts to be implemented. Environmental Sustainability can be identified across the

various code groups that were selected (not simply the code group Environmental Sustainability), but was a much larger theme in and of itself given that the discussion also included the code groups such as Biodiversity, Environmental Impact, Plastic Packaging and Climate Change. Environmental Sustainability at a macro level, was discussed by the Cosmetic Companies from a policy perspective, where the companies established committees to deal with sustainability issues. This discussion also involved the setting of Environmental Sustainability commitments by these Cosmetic Companies, by setting midterm targets that are achievable in the near future. This is different from Net Zero targets, but rather these commitments are interim targets that would allow for greater accountability to the stakeholders who are able to monitor the progress of the cosmetic companies more transparently.

A huge part of the discussion on Environmental Sustainability also involved the Cosmetic Companies dealing with their Scope 3 Emissions, through the engagement of their supply chain and suppliers. For most sectors in China and the US, Scope 3 Emissions account for more than 80% of a corporate's absolute emissions (Klaaßen & Stoll, 2021). However, the discussion here highlights a difference in approach taken by Western Cosmetic Companies and Asian Cosmetic Companies as the likes of L'Oreal and Estee Lauder do not include Scope 3 emissions as part of their sustainability goals. While the two Western Cosmetic Companies have set out ambitious targets for their direction emissions (Scope 1 and 2), the failure to set targets for their Scope 3 emissions means that the actual impact by the Western Cosmetic Companies are much lower. This is given the fact that Scope 3 emissions are the largest source of emissions belonging to a company, and therefore presents the best chance of making an impact. From this research perspective, the communication by Asian Cosmetic Companies regarding their Environmental Sustainability efforts are more material. While the Asian Cosmetic Companies might not have lofty climate targets compared to their Western counterparts, the willingness to tackle Scope 3 emissions means that there is greater materiality as regards their sustainability reporting.

5.3 Rise in Environmental Consciousness

Based on the review of the reports that the researcher had consolidated, what is interesting is that it differs from the academic discussions that the thesis had earlier identified in the theoretical framework. In the earlier theoretical framework, the articles had suggested that a huge majority of Asian consumers had said they preferred to buy from companies who are committed towards creating a positive social and environmental impact, a greater proportion as compared to Western consumers. This indicated that Asian consumers had a greater level of environmental consciousness, which in turn would indicate that Asian Cosmetic Companies would seek a greater level of stakeholder engagement from a sustainability perspective.

However, based on the communications in the sustainability reporting by the four cosmetic companies, it indicated that a greater level of consumer engagement came from the Western Cosmetic Companies, either through raising of awareness on sustainability issues or through the

conducting of consumer awareness initiatives. One possible reason that is posited by the researcher is that the environmental consciousness might be affected not by the consumer as a stakeholder, but by the relative sustainability maturity level of the respective cosmetic companies itself. For example, neither Asian Cosmetic Companies have produced a 2021 sustainability report, despite the fact that the thesis was written almost half a year into 2022.

Nevertheless, the respective cosmetic companies all recognize the growing consciousness by its customer base on issues of Environmental Sustainability. This is evident from the communications by the cosmetic companies, where they recognize that there is an increase in consumer demand for these companies to deal with sustainability issues.

5.4 Greenwashing

Lastly, a key concept that can be identified within the cosmetic companies' sustainability reporting is the discussion of greenwashing. The various modes of communications examined by this research further feeds into the concept that there is a huge amount of greenwashing claims made by companies in their marketing. As part of this discussion, the key concepts of Net Zero, Environmental Impact, Environmental Sustainability and Scope 3 emissions feature heavily, given that certain claims made by these cosmetic companies were guilty of the six fundamental flaws of greenwashing. Of which, during the review of the various reports from the respective cosmetic companies was able to identify a number of these in his analysis, and a few examples are highlighted below:

Estee Lauder's inclusion of the use of carbon neutral shipping in the offsetting of carbon emissions from the delivery of Aveda products (Estee Lauder, 2021) is an example of the sin of hidden trade-off, as well as the sin of Irrelevance. The proclamation that carbon offsets were used to offsett the shipping leg of the entire life cycle obscures the fact that there were no mention about what Estee Lauder was doing in relation to the other carbon emissions associated to Aveda. Secondly, given that the company had made pledges of net zero and not carbon neutrality, this environmental claim made by Estee Lauder is one that is simply a red herring and irrelevant.

Another good example of greenwashing can be found in Shiseido's claim that Shiseido has been repeatedly chosen for excellent ESG practices since the establishment of the SNAM sustainability index in 2012 (Shiseido, 2019). This represents the sin of vagueness, given that the precise reasons why Shiseido is chosen is something that is not available to the public.

Another example of the sin of vagueness can be found in L'Oreal's report, where they said that "we have totally reinvented the way we design and make our products with sustainability as a fundamental requirement" (L'Oreal, 2020). What exactly does sustainability as a fundamental requirement means is something that is left unexplained.

The concept of greenwashing highlights that more work is needed to be done by the cosmetic industry, even though such sustainability disclosures are voluntary in nature. However, given the fact that the company has asymmetrical information compared to its stakeholders, the onus is on the cosmetic companies to provide the consumers and other stakeholders with accurate and truthful information as to their sustainability efforts. From a materiality perspective of examining the reports, Asian Cosmetic Companies do seem to attempt to address these greenwashing issues, by seeking to provide more evidence of specific works done by the company during the previous year as a justification for the achievement of a particular claim that they make.

6.   Limitations and Conclusion

  While conducting this research, several limitations that were encountered. Firstly, the research is limited to only a sample size of two companies for Western Cosmetic Companies and two for Asian Cosmetic Companies. While the companies that were chosen are the leaders of the cosmetic industry in terms of being well known, they might not be completely representative of the Western Cosmetic Companies group or the Asian Cosmetic Companies group. Additionally, the research is limited to how these companies portray themselves from a sustainability perspective. Therefore, the findings are not without company bias and must be considered when analyzing the content. Next, the dataset of reports available were only from 2018 onwards, which is restricted in terms of sample size. As part of this, we also note that in terms of the 2021 sustainability reports or annual reports, there were not published yet by the Asian Cosmetic Companies as of the thesis date. It is noted that for AmorePacific, the report was published in the form of an interactive webpage, while the pdf report would only be available at a later date. Another limitation of the research is that the research did not extent to considering the consumer's purchase intention from the basis of the consumers. Rather, the focus was on how these cosmetic companies had made respective disclosures and whether there were any cultural differences in doing so. Next, it is difficult to ascertain the veracity of some of the statements that were incorporated in the sustainability reporting, given the asymmetrical information barrier between the companies and the reader. Another limitation is that most companies within the cosmetic industry are part of a larger conglomerate or group of companies, which also means that the reports were consolidated on a group level basis rather than on individual companies themselves.

  In conclusion, this research thesis has attempted to provide further insights into whether or not there are any cultural differences that influence the way in which Asian Cosmetic Companies and Western Cosmetic Companies report their sustainability efforts in their reports. Based on a qualitative content analysis of the various sustainability reports, annual reports and other CSR reports, it can be concluded that there are four key concepts which can be distilled which are of great importance: (1) Stakeholder Theory, (2) Environmental Sustainability, (3) Rise in Environmental consciousness and (4) Greenwashing. Additionally, a comparative approach was also taken to examine the four key concepts that are raised by the cosmetic companies in their sustainability reporting, where the research identified the differences between the two set of cosmetic companies.

  The findings raised by these concepts and the comparative review of the four key concepts are aligned with previous studies on the premise of sustainability reporting and the four cosmetic companies did conform to the Stakeholder Theory as the foundation for its sustainability reporting. However, the findings also indicated that generally, Asian Cosmetic Companies were more willing to address sustainability in a holistic manner as compared to their Western counterparts. When comparing the reports from Asian Cosmetic Companies and Western Cosmetic Companies, it

becomes apparent that the latter uses these reports as a self-congratulatory exercise, where they provide the various achievements that the company has attained over the previous financial year. On the other hand, Asian Cosmetic Companies seek to provide their stakeholder base with examples of evidence to support the various environmental claims that they look to make.

In terms of greenwashing, it is indeed the case that all the cosmetic companies were guilty of greenwashing claims to a certain degree. It is apt that while the research was ongoing to determine the level of greenwashing claims by the four cosmetic companies, the German prosecutors raided the premises of the asset management unit of Deutsche Bank, over allegations that they had misled investors with their greenwashing claims (Arons, Matussek & Comfort, 2022). As such, these cosmetic companies should pay attention to the type of environmental claims that they make as part of their sustainability reporting.

For future research, perhaps a larger sample size of cosmetic companies could be analyzed in other to get a better cross sectional representation of Western Cosmetic Companies and Asian Cosmetic Companies. Secondly, an additional layer of qualitative research could be undertaken in order to identify the consumer's purchase intention based on the information that is provided by the cosmetic companies in their sustainability reporting. This would help to shape the discussion as to the value of sustainability reporting by companies as part of the stakeholder theory. Lastly, given the advent of globalization, Western Cosmetic Companies now do have a presence in Asian countries, while Asian Cosmetic Companies similarly have entered the Western markets. Therefore, perhaps a more in-depth research would be able to explore how these companies portray themselves differently, from a sustainability perspective, in an effort to cater to different stakeholders of differing cultural origins.

In conclusion, this paper presents valuable insights into how Asian and Western Cosmetic Companies engage their stakeholders differently through their sustainability reporting. The socio-scientific relevance of this thesis is emphasized in the findings, where the thesis had identified the differences in how Asian and Western Cosmetic Companies embed environmental sustainability into their Sustainability Reporting. At the same time, the thesis' academic relevance is by plugging the gap in the discussion by academic articles in the field of sustainability reporting, through the comparison between Asian and Western Cosmetic Companies. It hopes to be able to shed some light as to the differences in how Asian and Western Cosmetic Companies view sustainability reporting as a tool of engagement, and through this help to contribute to the overall discussion on how proper sustainability reporting should be done by the cosmetic industry.

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Code Groups	Asian Cosmetic Companies	Western Cosmetic Companies	Total
Biodiversity	3 (0.12%)	0	3
Carbon Emissions	239 (9.24%)	202 (7.81%)	441
Climate Change	35 (1.35%)	8 (0.31%)	43
Consumers	2 (0.08%)	19 (0.73%)	21
Energy	157 (6.07%)	113 (4.37%)	270
Environmental Impact	209 (8.08%)	319 (12.33%)	528
Environmental Sustainability	202 (7.81%)	270 (10.44%)	472
Net Zero	2 (0.08%)	16 (0.62%)	18
Plastics Packaging	214 (8.27%)	258 (9.97%)	472
Scope 2	155 (5.99%)	115 (4.45%)	270
Scope 3	20 (0.77%)	6 (0.23%)	26

Water	21 (0.81%)	2 (0.08%)	23
Total	1259 (48.67%)	1328 (51.33%)	2587 (100%)

Appendix B: **link to ATLAS.ti report**

https://www.dropbox.com/scl/fi/vhe4ovk7era8vizz19iov/Report-Masters-Thesis.doc?dl=0&rlkey=28jj7v6i2keccrxcqqb9wycs6