

Corporate Social Responsibility (CSR) in Fashion Supply Chains: A Multi-Methodological Study

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Abstract

This paper examines CSR in fashion supply chains by applying a multi-methodological approach. We first investigate the CSR performance and consumer expectation towards luxury, fast fashion and functional brands through a case study and semi-structure interviews. Then, by building a stylized analytical model, we uncover that it is optimal for the higher-priced fast fashion and functional brands to commit a high CSR commitment with a low advertisement level while the luxury brands should act oppositely. To entice the luxury fashion brand to create a CSR-improving situation, we propose the use of disruptive technologies such as blockchain to help.

Keywords Corporate social responsibility, CSR reporting, consumer perception, multi-methodological approach, fashion, disruptive technology.

1. Introduction

1.1 Background

Corporate social responsibility (CSR) is a crucial issue in business operations (Van Wassenhove, 2019) as sustainability has been drawing the attention of all the stakeholders and becoming a pressure to the business firm (Villena, 2019). Some companies are aware of the significance of CSR in terms of the long-term business development while others perceive it as a competitive advantage in the marketplace. A firm having CSR practices can develop a positive brand reputation to the public and hopefully can generate a better financial performance. It is estimated that the fashion companies can achieve €160 billion annually if the society and environmental risks are resolved (Global Fashion Agenda and Boston Consulting Group, 2017).

In the fashion industry, luxury brands have long been accused of threatening the natural environment even their products are regarded as timeless pieces. The major devastation caused by the luxury fashion brands is the use of fur and leather from rare and wildlife animals. Timberland, e.g., received thousands of complaint emails when Greenpeace reported that it might have sourced from traders who killed wildlife for leathers (Swartz, 2010). In addition, toxic chemicals are required to dye the fur in the manufacturing process, which will become another source of problems to the environment. On the other hand, fast fashion brands, such as H&M, Zara, Topshop, have been blamed for creating poor labor welfare, severe environmental pollution as well as a massive amount of clothing disposal at the end of product life cycle. The annual average amount of clothing purchased per capita increases by 60% in 2015, compared with 15 years ago when there is no fast fashion, and the carbon dioxide emission rate also increases dramatically (Remy et al., 2016). Regarding the functional brands, it is reported that they have poor management on product safety and social responsibility. For example, organotin, a kind of hazardous chemical, has been found in the apparel produced by Nike, Adidas, and Puma, which causes serious threat to the immune and nervous systems (Brigden et al., 2013). Recently, the workplace of Nike has been exposed to sexual harassment and gender discrimination (Debter,

2019). These evidences show that different types of fashion brands have received various criticisms on the negative social and environmental impacts, and they have to improve their CSR commitment in different domains.

CSR disclosure can help the stakeholders to better understand the sustainability performance of a firm. Many fashion brands report their CSR practices through their official websites because they can respond quickly to the ever-changing business environment and disclose the timely information in a less costly manner. However, this is a one-way communication that the brands cannot truly capture the consumer expectations and make corresponding improvement. Therefore, it is important for the fashion brands to first understand the consumer expectation and then make the operational decisions that can benefit the fashion brands and manufacturers with the consideration of CSR commitment.

Moreover, despite enjoying a very high profit margin, luxury fashion brands seem to be less enthusiastic in CSR. This study therefore aims to explain the reason of such phenomenon and generate insights on this topic by adopting a multi-methodological approach. We first evaluate the CSR practices of three giant fashion brands, namely: H&M, Nike and Louis Vuitton (LV). They are top fashion brands in fast fashion, functional fashion, and luxury fashion, respectively. The differences between their CSR performance and the consumer expectation towards them are uncovered. Afterwards, we build an analytical model to explore whether the current practices of these fashion brands are optimal. Finally, we propose measures to help improve CSR of the luxury fashion brand, which is identified with a relatively low CSR performance.

1.2 Contribution Statements and Paper Structure

This study contributes to the existing literature of the operations and marketing interface problem. To our best acknowledgement, this is a pioneer study applies multi-methodological approach to assess CSR performance of three different types of fashion brands and analytically explain whether or not they should always commit a high CSR level and have a high brand promotion effort. Our findings are

as follows. First, as indicated in the case study, Nike has the highest CSR engagement, followed by H&M and LV, and our analytical study demonstrates that it is optimal for the higher-priced fast fashion and functional brands to commit a high CSR and a low advertisement levels. To be specific, the optimal CSR engagement and advertisement level decisions are governed by the cost effectiveness of CSR commitment. In practice, the functional brand Nike should keep seeking ways to improve the product safety (as expected by consumers) to maintain a high CSR commitment level. For the fast fashion brand, such as H&M, it should set a higher selling price for the “conscious” product line that the products are made by sustainable raw material (e.g., organic cotton, recycled polyester). Interesting, we uncover that luxury brands such as LV should act oppositely with a low CSR but a higher advertisement level. Second, despite it is optimal for LV to commit a low CSR level, it should consider to increase it by adopting disruptive technology such as blockchain for ethical sourcing and enhancing the supply chain transparency to deal with the CSR issues. It can help to create a CSR-improving situation for both LV and its manufacturer.

The structure of this article is arranged as follows. The literature review along with the theoretical background of this article is conducted in Section 2. After that, the research methodology is presented and the case study is reported in Section 3 and Section 4, respectively. Then, interview results and managerial implications to business ethics are discussed in Section 5. After that, we build an analytical model to derive theoretical findings in Section 6. Conclusion is drawn in Section 7. To enhance readability, all proofs are placed in Appendix.

2. Literature Review

2.1 CSR in Business Operations and Fashion Industry

Corporate social responsibility (CSR) includes economic, legal, ethical, and discretionary categories, and each category can be evaluated with respect to the stakeholders of a firm (Carroll, 1979). CSR is an issue which goes beyond the laws and is consistent with international norms of behaviour. There

are many different CSR definitions (Dahlsrud, 2008) and the most commonly adopted one is by European Commission (2001, p.6) in which CSR is described as “a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis.” Social initiative refers to “a variety of forms and points of focus, ranging from corporate support for training and educating adults and youth in local communities, to nationwide programs helping welfare recipients get jobs and to globally focused efforts providing aid to developing countries” (Hess et al., 2002, p. 110). In other words, social aspect considers how the society is being affected in which the activities can be used to help “enhance the workers’ benefits and welfare” (Huq et al., 2016). On the other hand, environmental initiative helps to mitigate and minimize the negative impact generated from the products production process and business practices toward the ecology (European Commission, 2001), such as using pollution reduction systems, adopting natural resources preservative measures, having environmental friendly design. The environmental initiatives can be adopted in every single stage of the supply chain from manufacturing to retailing. Retailers can procure from suppliers who provide high transparency about the sources of raw materials, and the environmental impacts of manufacturing. Performing social and environmental responsibility is a competitive strategy that is particularly useful when the corresponding practices are aligning with the firm’s core business (Porter and Kramer, 2006). In addition, firms can internally generate better financial achievement (Brockhaus et al., 2017), reduce the rate of worker’s turnover but improve the productivity. Externally, they can also build trust among consumers, differentiate themselves from the competitors, and improve brand equity.

In fashion industry, the social aspect of poor labour condition is a severe problem in fashion industry (Pedersen and Gwozdz, 2014), including child labour, low salaries, and occupational health due to the labour-intensive nature (Pedersen et al., 2018). Cooke and He (2010) show that Chinese textile manufacturing suppliers are relatively less aware of labour pay-off and human rights regardless the size of the fashion brands. Human Rights Now (2015) reports that two manufacturing suppliers

located in China do not follow the CSR commitment claimed by Uniqlo in which the factory workplace is insecure, has no appropriate compensation for the overtime work, and workers are unable to express their opinions. Apart from social responsibility, environmental engagement is also of great concern because the stakeholder values it the most (Kassinis and Vafeas, 2006). The prominent environmental issues in fashion industry are waste, toxic chemicals, and air pollution (Babiak and Trendafilova, 2011; Colucci et al., 2020; Da Giau et al., 2020; Pedersen et al., 2018; Chan et al., 2018b). For instance, Brennan et al. (2013) investigate how the fashion brands deal with the criticism raised by the Greenpeace about the environmental pollution and the toxic chemicals adoption in the China manufacturing factory. To be environmentally responsible, fashion retailers tend to procure from suppliers who are able to provide high transparency about their fabric sourcing, environmental impacts of their production and so on (Caniato et al., 2012). They may also create sustainable product design, recycle and reduce waste, as well as reuse the fastening pieces.

Another stream of research studies focus on the CSR reporting. CSR reporting is a voluntary governance practice and legitimacy of a firm to communicate its sustainability commitment to internal and external stakeholders (Campbell et al., 2003). In practice, the firm may adopt different international instruments which provide guideline to standardize the social and environmental practices. Among the CSR reporting standards, the Global Reporting Initiative (GRI) is widely adopted and can balance the legitimacy and sustainability prestige of a firm (Nikolaeva and Bicho, 2011). In the literature, the evaluation of the CSR performance in the fashion industry are under-explored. For example, Yu (2008) examines the rights of Chinese factory workers of Reebok through a case study and reports that using code of conduct is insufficient as it restricts the labour standard improvement. Kamal and Deegan (2013) investigate the sustainability practice and disclosure of textiles and apparel companies in Bangladesh. They find that most of the companies reveal the information about the committee formation for sustainability management only and the community service is the least reported ones. Turker and Altuntas (2014) evaluate the sustainable supply chain management of fast

fashion brands. They identify that the supplier's code of conduct in compliance with international standard is the top priority issue to enhance the supply chain sustainable performance. Mann et al. (2014) examine the labour related code of conduct, environmental initiatives, and performance monitoring issues of 17 fashion brands. They discuss how the overall sustainable performance can be enhanced. Kozlowski et al. (2015) analyse the sustainability practices of 14 fashion and textiles brands and show that they should address more on the consumer involved sustainability practices such as used products recycling, repairing service, and labelling. Yadlapalli and Rahman (2017) quantify the level of social sustainability of 37 textiles and clothing companies based on the GRI reporting standard. De Angelis et al. (2017) find that the luxury fashion brands can commit to environmental sustainability by creating sustainable product design that can align with the brand image. Apart from these studies, recent disruptive technologies such as blockchain can improve the information sharing efficiency (Acharya et al., 2018; Zheng et al., 2018), thus, it can increase traceability and transparency of fashion supply chains (Choi and Luo, 2019; Montecchi et al., 2019). It is also suggested that blockchain can potentially help improve the CSR reporting level (Choi and Luo, 2019; Montecchi et al., 2019; Saberi et al., 2019).

However, to our best knowledge, existing studies on the CSR reporting have not comprehensively assessed all the social and environmental practices according to the GRI guidelines. In this study, first, we fill this research gap. Second, we further compare the CSR engagement level of H&M, Nike and LV, and investigate the CSR expectation from consumers. Note that consumers are one of the external stakeholders, and their opinions and demands will form the business strategy and CSR evolution of a firm (Handelman and Arnold, 1999).

2.2 Organizational Theories

In this study, three organizational theories are used to construct our theoretical foundation, they are institutional theory, resourced-based theory and signalling theory. We review how these theories can

be applied in the fashion related industry as follows.

2.2.1 Institutional Theory

Institutional theory evaluates how the external pressures of a firm affect its business model and practice (Hirsch, 1975). The institutional theory divides the isomorphic driving forces into coercive, normative and mimetic category. The coercive pressure exists because the authority comes from external party (Dubey et al., 2017). The most common influential entity driven by the coercive pressure is the governments because they can affect the business practice of a firm through legislations. Normative pressure induces the firms to meet the expectations from the professional networks as well as consumers (Liang et al., 2007). The certification and the increasing consumer awareness toward the environmental sustainability drive the firms to facilitate the sustainable practice (Ball and Craig, 2010). Mimetic pressure forces the firms to imitate the critical successful practices of their rivals in the market (Aerts et al., 2006).

Institutional theory has been widely adopted in literature to study the CSR implementation in the fashion industry. For example, Pedersen and Gwozdz (2014) statistically examine the movement of having CSR from the Nordic fashion companies' perspective and find that the companies view it as compliance and the institutional pressures evoke their innovativeness in constructing the differentiation and competitive niche in the marketplace. Li et al. (2014) study the CSR governance in the fast fashion supply chain. They show that the efficiency and the legitimacy systems are two important mechanisms for the sustainability governance. Scheiber (2015) analyses the spread of code of conduct in the German apparel industry and indicates that the pressure from the non-government organization is the major underlying reason. In addition, the institutional theory also supports that having communication with the stakeholders about the business practice can generate positive perception and promising consequences (Meyer and Rowan, 1977). Li et al. (2016) statistically show that the fashion firms executing sustainability practices will result in a higher net-income. Stal and Corvellec (2018) conduct a case study to explain the circular economy of Swedish apparel companies.

They address that outsourcing and internal separations are two critical operations to execute the circular models.

2.2.2 Resource-Based Theory (RBT)

Resource-based theory (RBT) suggests that the competitive advantage of a firm can be gained or reinforced by unifying the rare and valuable resources (Barney, 1991) because the rivals in the marketplace are difficult to access or imitate those resources. The resources, including assets, business capability, information, and knowledge, can develop and facilitate business strategy to enhance competitiveness. Sustainability practices and attributes are regarded as the RBT resources (Russo and Fouts, 1997). Sustainability practices consist of recycling, reusing, reducing the pollution level, and participating in the community services while sustainability attributes include non-toxic production, animal test free products, and green-energy engines. The intangible resources such as labours with better skills and education, better brand image and reputation, are hard to be substituted and copied which can generate the competitive advantage. According to RBT, resources such as advances in technology can create innovative goods and services along with an increased efficiency (Dewar and Dutton, 1986), sustainable practices can generate good returns (McWilliams and Siegel, 2011), and cleaner technology implementation can facilitate eco-friendly products production and strengthen the market position (Bhupendra and Sangle, 2016).

2.2.3 Signalling Theory

Signaling theory is developed based on the information asymmetry assumption. This theory addresses that information sharing between different parties can deal with the information asymmetry problem (Zerbini, 2017), and the firm can intentionally project the unobservable information through a visible signal that is valuable to the others. Information such as working environment of the employees and usage of claimed recycled cotton, is difficult to be examined by the external customers (Jahn et al.,

2005), and the firm can use the signal to convey these sustainability engagements. Jiang and Bansal (2003) uncover that firms have a higher tendency to get certifications for their environmental initiatives when stakeholders have little information about their practices. This certification is perceived as a way to provide signal to the stakeholders that their operations are acceptable to the environmental management. Hofer et al. (2012) find that the environmental practice of a firm is a kind of signal that induces the response from its competitor and further lifts the level of sustainable engagement to re-develop the competitive advantage. Therefore, with signaling theory, CSR reporting in accordance with the international standard can help a firm signal its sustainable engagement (Nikolaeva and Bicho, 2011). The firms with outstanding CSR performance are more willing to fully disclose their commitments (Longoni and Cagliano, 2018) and provide standalone sustainability reports for the stakeholders to get aware of the firms' sustainability activities (Clarkson et al., 2011).

2.3 Analytical Studies in CSR

In the analytical studies, literature has discussed different methods to enhance the supply chain CSR performance, such as supplier auditing (Chen and Lee, 2017; Chen et al., 2019; Plambeck and Taylor, 2016; Lee and Li, 2018; Cho et al., 2019; Shi et al., 2020), technology implementation (Krass et al., 2013; Drake et al., 2016; Chan et al., 2018a), ethical/responsible sourcing (Nie et al., 2017; Shen et al., 2017; Awasthy and Hazra, 2019) and even recycling (Choi et al. 2018). This study is related to the operations management problem in the CSR commitment. With the consideration of CSR investment, Letizia and Hendrikse (2016) show how the supply chain structure can affect the incentive for CSR engagement. Lee et al. (2018) find that having regulation on greenwashing may not be a good tool to improve CSR performance if the CSR cost is high. Wu et al. (2020) reveal the pros and cons of greenwashing and indicate the role of information transparency in the social welfare and operations strategy of a firm. Wang et al. (2020) investigate the effect of internal competition on the CSR investment level. Guo et al. (2020) conduct interviews with practitioners to confirm the model

development structure and then analytically explore the product sustainability level in the presence of retail competition. Shen et al. (2020) conclude that environmental tax legislation can induce the fashion manufacturer to implement cleaner technologies for production.

Besides, this study is also related to the marketing decision in the brand promotion effort. It is known that the brands can increase demand through advertisement (Zheng et al. 2012). Zhang et al. (2014) study the impact of advertising in food supply chain and show that the effective level of the advertising depends on the leader's willingness to take part in it. Choi (2017) considers both the new and remanufacturing products and analytically explores the optimal pricing and promotion effort. Choi and He (2019) explore the fashion product rental services and study the effect of peer-to-peer collaborative commerce (P2P-CC). They find that marketing effort can generate benefits to each of the supply chain member in the presence of P2P-CC. Hua et al. (2019) analyse the supplier's advertising level and the retailer's point-exchange incentive when there is a drug collection program. They propose a mechanism that is beneficial to both supply chain members. Li et al. (2020) investigate how the cost factors affect the advertising price, design investment and advertising level for the new and remanufactured product in a closed-loop supply chain.

Our study is different from these two streams of studies. To be specific, we consider a joint problem in CSR commitment and brand promotion effort, and examine whether the manufacturer is also benefited with an increased CSR engagement.

3. Research Methodology

3.1 Multi-Methodological Research Approach

This study applies a multi-methodological approach to examine the CSR in fashion supply chain. The multi-methodological approach helps to project a clearer illustration, better understanding of the phenomenon and obtain multiple points of view towards the problem (Singhal and Singhal, 2012a, 2012b; Choi et al., 2016) It outperforms the single method approach as it can provide more

comprehensive insights and has been applied in the field of supply chain management and CSR studies (Besiou and Wassenhove, 2015; Li et al., 2019; Tong et al., 2018; Park et al., 2018)

Our multi-methodological approach includes case study, semi-structured interviews, and analytical modelling. In this study, case study is used to reveal the levels of CSR initiatives of the fashion brands in accordance to the Global Reporting Initiative (GRI) reporting standard. On the other hand, semi-structured interviews are conducted to investigate the CSR expectation of consumers towards the targeted fashion brands. Note that for the consumer studies, we aim at drilling deep and exploring more the real thought in consumers' minds. Thus, we focus on a few consumers rather than conduct the quantitative mass survey with hundreds of consumers. Finally, analytical modelling is built to derive the optimal CSR commitment and advertisement levels and examine the mechanism to create a CSR-improving situation.

3.2 Selecting the target fashion brands

Fashion brands are the major focus of this study. The top international brand ranking published in the Interbrand in 2017 from each type of fast fashion, functional fashion and luxury fashion are selected as our target brands. The brand value evaluated by Interbrand is based on three key factors, they are: financial value, consumer's choice and the business development for profit earning. The data used by Interbrand for analysis is from Thomson Reuters, annual reports of the corporate, as well as social media service providers such as Canadean, Twitter and Infegy. The top 10 international fashion brands ranked in Interbrand in 2017 is summarized in Table 1. It is obvious that H&M, Nike, and LV are the highest ranked in each type. They play a leading role in global marketplace, and their market share and sustainability initiatives have a great impact on their competitors and stakeholders. In addition, in terms of availability of public data, the larger the firm, the more CSR information is provided to the public (Morhardt, 2010). This facilitates our data collection and analysis.

Table 1. The top 10 international fashion brands ranked in Interbrand in 2017.

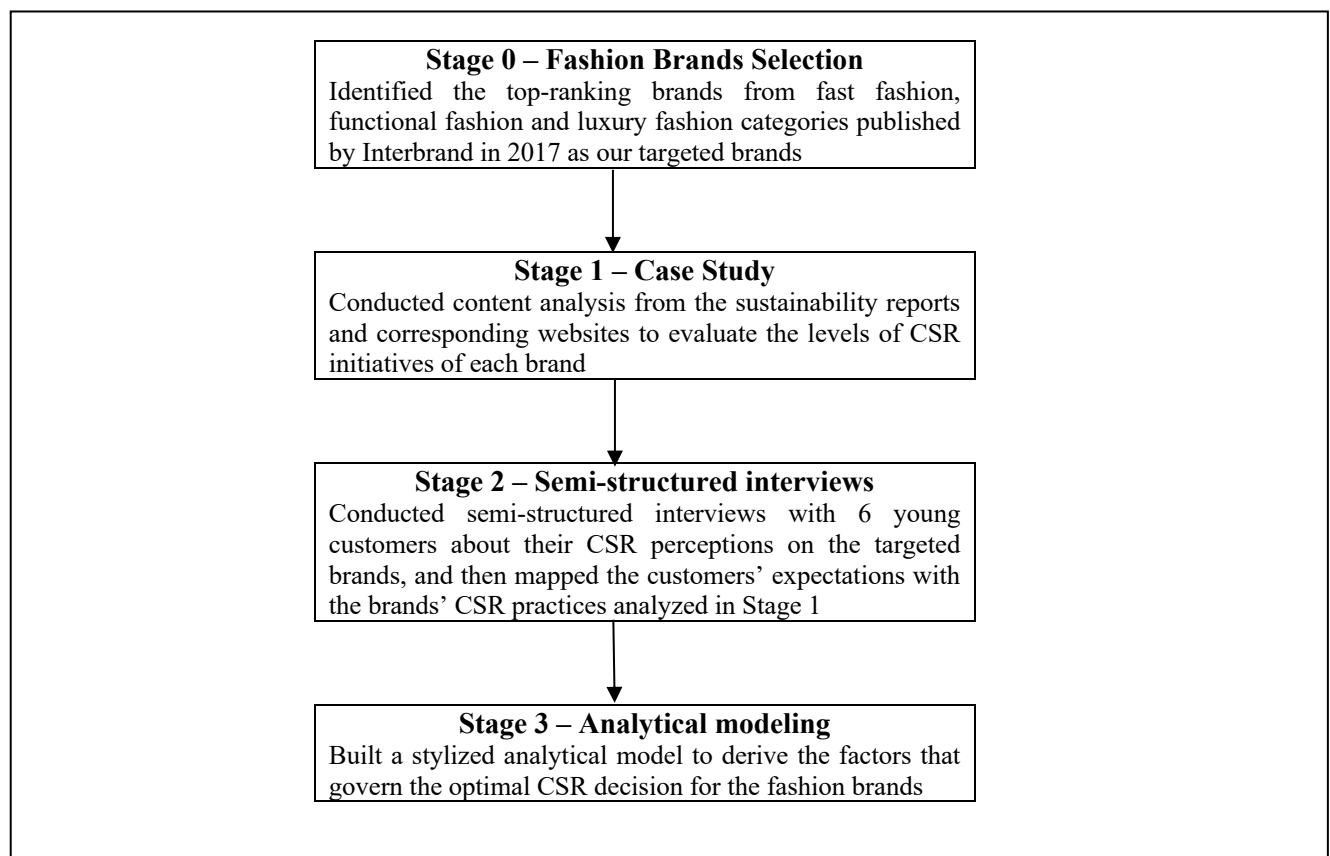
| Ranking in the Interbrand in 2017 | Brand | Type |
|--|---------------|--------------------|
| 18 th | Nike | Functional fashion |
| 19 th | Louis Vuitton | Luxury fashion |
| 23 rd | H&M | Fast fashion |
| 24 th | Zara | Fast fashion |
| 32 nd | Hermes | Luxury fashion |
| 51 st | Gucci | Luxury fashion |
| 55 th | Adidas | Functional fashion |
| 65 th | Cartier | Luxury fashion |
| 81 st | Tiffany & Co | Luxury fashion |
| 86 th | Burberry | Luxury fashion |

3.3 Data collection and analysis

After selecting the targeted brands, we divide our research into three distinct stages as shown in Figure 1. In Stage 1, we conduct a case study to understand the levels of CSR initiatives of each targeted brand by applying the content analysis. The most commonly observed form of CSR reporting is the separate sustainability reports. A CSR report is a company document which indicates the economic, environmental, social, and governance of the corporate (Kolk, 2008). We collect three years of CSR reports and information from the targeted brands' official websites because the Internet is an effective way to propagate the information to broader stockholders. The collected information is then used to conduct the content analysis on the levels of CSR engagement. Table 2 summarizes the information source. Content analysis has been commonly used to explore the sustainability related issue (Jose and Lee, 2007). It is a technique that the text is coded and classified into different groups according to the criteria. It can help to identify particular information and can be condensed to a mutually exclusive context to address a specific phenomenon (Krippendorff, 2013). To analyse the levels of CSR initiatives, we adopt the coding scheme in accordance to the Global Reporting Initiative (GRI) reporting standard. The GRI reporting standard is widely adopted and perceived as a performance evaluation tool for improvement (Vigneau et al., 2015). H&M, Nike, and LV also adopt the GRI reporting standard for their sustainability reporting, and hence, it can help to compare the levels of

CSR initiatives based on a consistent reporting framework². Under the GRI reporting standard, the coding scheme for the environmental category is divided into eleven issues and the social category is separated to four aspects, they are (a) labour practices and decent work with eight issues; (b) human rights with ten issues; (c) society with seven issues; and (d) product responsibility with five issues. The CSR practices of each issue are first extracted from the sustainability report and website of each brand, and then fitted into each category. Next, the levels of CSR initiatives are assessed by counting the number of corresponding CSR practices. In this study, the coding task is first performed by one researcher. The validity assessment is then conducted by another researcher through arbitrarily selecting and checking the coded data with the source of information. This ensures the replicability and reliability of this study (Neuendorf, 2002).

Figure 1. Research methodology and procedure of this study.



² We based on the GRI reporting guidance to examine the levels of CSR initiatives because all three brands adopted the GRI standard in their CSR reporting, and hence it provides a consistent framework for comparing their CSR engagement under the same CSR aspect.

Table 2. Information source of the targeted brands for case study.

| Brand | Information source | Website address |
|-------|---|---|
| H&M | Sustainability web page | http://about.hm.com/en/sustainability.html |
| | Sustainability reports from 2015, 2016 to 2017 | https://sustainability.hm.com/en/sustainability/downloads-resources/reports/sustainability-reports.html |
| Nike | Sustainable innovation web page | https://about.nike.com/pages/sustainable-innovation |
| | Sustainable business reports from 2012-2013, 2014-2015 to 2016-2017 | https://about.nike.com/pages/resources-faq |
| LV | Environment commitment web page | https://www.lvmh.com/group/lvmh-commitments/environment/ |
| | Environmental reports from 2015, 2016, to 2017 | https://www.lvmh.com/news-documents/documentation/ |

In Stage 2, we conduct semi-structured interviews with 6 young customers about their CSR perceptions on the targeted brands. By applying the semi-structured interview, it is more flexible for the interviewees to express their opinions which can gather comprehensive views about the interviewees' perceptions. We target at the young consumers aged between 18 and 25. This group of consumers are demographically distinct (Arnett, 2000), and thus they are worth investigating. We adopt the snowball sampling method to find suitable interviewees for in-depth interviews because this technique can help to access the potential respondents through a broader network. The potential candidates are first invited for interview and then they are asked for referrals that can help us attain basic knowledge about the interviewee (Biernacki and Waldorf, 1981). Next, the shopping experience and demographical data of all interviewees are collected. Finally, the eligible interviewees are chosen if they have shopped at the brand and fitted our targeted age group. It is not necessary for the interviewees to have regular visit to the brand, but they must have visited the brand at least once over the past year. One female and one male customer of each brand are selected to carry out the interview. The demographical data of the interviewees are summarized in Table 3. To conduct the semi-structured interviews, open-end questions about the research topic are prepared such that the interviewees have freedom to address them from their point of view. The list of questions is the same to all interviewees. This is because the objective of the interview is to compare the difference between those three types of fashion brands. We construct a same set of questions for each brand to facilitate an accurate comparison (Ryan et al., 2009). During the interview, the following measures are applied to ensure the

validity. First, the interviewees are given a freedom to accept or reject the invitation of the interview to guarantee that the interviewees are willing to contribute to the study and provide correct and precise responses. Second, the interviewees are encouraged to give any true responses without considering whether the answer is desirable or not. This helps to certify that the data collected from the respondents are accurate and real. The procedures are consistent among all six interviews. After analysing the last interviewee’s response, we find no new issues, and saturation is attained.

Table 3. Demographical data of the respondents.

| Coding of respondent | Targeted brand | Gender | Age |
|-----------------------------|-----------------------|---------------|------------|
| HF | H&M | Female | 21 |
| HM | H&M | Male | 24 |
| NF | Nike | Female | 22 |
| NM | Nike | Male | 21 |
| LF | LV | Female | 22 |
| LM | LV | Male | 25 |

In Stage 3, we develop a stylized analytical model to derive the factors that govern the CSR commitment and advertisement decisions for the fashion brands. Through the analytical analysis, the managerial insights on the implementation of CSR are generated from the perspectives of both the fashion retailer and manufacturer.

4. Case Study Analysis

In this section, we first present a case study analysis regarding the CSR initiatives of H&M, Nike and LV. The data of the case study are from the sources available to the public, such as company websites, online articles, and newspapers. To facilitate ease of reading, details of the case study analysis (i.e., the CSR initiatives of H&M, Nike and LV) are placed in the Online Publication Materials (A), and the results are discussed below.

The levels of social engagement of H&M, Nike and LV are evaluated and the findings are summarized in Table 4a and Table 4b. It is obvious that LV has the lowest overall performance in social engagement, followed by H&M and Nike. Among the four aspects in the social engagement, first, LV

does not focus much on the labor practices and decent work, human rights, and product responsibility. To be specific, LV has limited social engagement such as setting mutually agreed working hours with labors, launching workshops and counselling services, and providing support to the farmers only. Over the past decade, consumers have exhibited a great concern on the sustainability practices of the fashion brands including luxury products. The socially responsible initiatives of the companies can enhance brand image and differentiation from others (Kim et al., 2012). Kim and Ko (2012) state that luxury brands should not only promote their brands through product quality and scarcity level, but also the CSR values to establish a solid connection with the customers. From the resource-based theory, developing a good relationship with the customers is a kind of intangible resource that the firm can use to fight against its rival (McWilliams and Siegel, 2011). Therefore, luxury brands have to maintain their intrinsic brand values along with social sustainability development. Second, despite fast fashion brands have been blamed for employing child labour and offering lower than living wages, H&M has striven hard in these issues. It has not only considered the wellbeing of the employees but also the customers by specifying the kinds of garments that cannot be sold in the market in case the product may cause threat to customer's health and safety. However, H&M should keep enhancing the human rights performance by addressing the security practice and supplier human rights assessment. Last but not least, Nike has the highest level of social initiatives. Nike implements different regulations to address each social aspect, however, it does not disclose much on the labor practices grievance mechanisms, anti-corruption, and customer health and safety.

Table 4a. Levels of social engagement of H&M, Nike and LV.

| Engagement | Aspect | Issues | H&M | Nike | LV |
|------------|--------------------------------------|--|-----|------|----|
| Social | (a) Labour Practices and Decent Work | Employment | 2 | 4 | 2 |
| | | Occupational health and safety | 4 | 4 | 0 |
| | | Training and education | 0 | 2 | 1 |
| | | Diversity and equal opportunity | 3 | 2 | 0 |
| | | Equal remuneration for women and men | 1 | 1 | 0 |
| | | Supplier assessment for labour practices | 2 | 2 | 0 |
| | | Labour practices grievance mechanisms | 1 | 0 | 0 |
| | (b) Human Rights | Non-discrimination | 1 | 1 | 1 |
| | | Freedom of association and collective bargaining | 2 | 2 | 0 |
| | | Child labor | 3 | 3 | 0 |

| | | | | | |
|--|----------------------------|----------------------------------|---|---|---|
| | | Forced or compulsory labor | 2 | 2 | 0 |
| | | Security practices | 0 | 3 | 0 |
| | | Supplier human rights assessment | 0 | 1 | 0 |
| | (c) Society | Local communities | 1 | 4 | 2 |
| | | Anti-corruption | 2 | 0 | 0 |
| | (d) Product Responsibility | Customer health and safety | 2 | 0 | 0 |

Table 4b. Overall score of CSR commitments on social engagement.

| Social engagement | H&M | Nike | LV |
|----------------------------------|-----|------|----|
| Labour Practices and Decent Work | 13 | 15 | 3 |
| Human Rights | 8 | 12 | 1 |
| Society | 3 | 4 | 2 |
| Product Responsibility | 2 | 0 | 0 |
| Total | 26 | 31 | 6 |

Regarding the levels of environmental engagement of H&M, Nike and LV, the findings are summarized in Table 5a and Table 5b. Similar to social engagement, LV also puts the lowest effort and performs the worst in the environmental engagement, followed by Nike and H&M. LV does not consider the sustainable practices related to materials and water management such as creating innovative recycled fabrics, using renewable sources of energy, and reducing water pollutions as H&M and Nike. It may be due to the fact that consumers incline to see the application of recycled materials on packaging but not on the luxury fashion products (Achabou and Dekhili, 2013). Recently, it is found that luxury consumers are also interested in the green products and the eco-friendly attribute is deemed as central (Perez et al. 2020). Therefore, LV should carefully determine the degree of green attributes of the products, and investigate the possible technology in the production for eco-friendly products development and mitigate the pollution level. Based on the resource-based theory, reusing the waste, recycling, or even adopting the cleaner technology to produce the environmentally friendly substances/products that can help to achieve competitive advantage and further strengthen the market position (McWilliams and Siegel, 2011; Bhupendra and Sangle, 2016). Stella McCartney is one of the successful sustainable luxury brands that produce the products with recycled polyester, vegan leather, and organic cotton. The brand believes that using the recycled polyester is an effective measure to

reduce the carbon and water consumption (Stella McCartney, 2018). In addition, H&M and Nike should address the products and services, and transport issues, respectively. On the other hand, Nike is the uppermost user of reutilized polyester in the fashion industry and the sports shoes are made of recycled PET environmentally favoured rubber. It invests in renewable energy creating facilities in Europe and invents innovative material, Flyleather, to reduce carbon discharges in the production process. However, Nike has not considered sustainable practices on transport such as having routing optimization to reduce the travel distance and hence the carbon emissions. Finally, H&M has the highest environmental engagement and it is one of the major purchasers of organic cotton in the world. It consumes organic cotton for garment production, collects the used apparel for recycling, and regulates the wastewater management for the supplier.

Table 5a. Levels of environmental engagement H&M, Nike and LV.

| Engagement | Issues | H&M | Nike | LV |
|---------------|-----------------------------------|-----|------|----|
| Environmental | Materials | 4 | 4 | 0 |
| | Energy | 2 | 2 | 1 |
| | Water | 2 | 2 | 0 |
| | Emissions | 2 | 1 | 2 |
| | Effluents and Waste | 2 | 2 | 4 |
| | Products and Services | 0 | 1 | 1 |
| | Compliance | 2 | 2 | 2 |
| | Transport | 1 | 0 | 2 |
| | Supplier environmental assessment | 3 | 2 | 1 |

Table 5b. Overall score of CSR commitments on environmental engagement

| | H&M | Nike | LV |
|--------------|-----|------|----|
| Total | 18 | 16 | 13 |

In this case study, it is obvious that Nike has the highest level of CSR engagement while LV has the least commitment. To be specific, LV should put more efforts on the labour practices and decent work, human rights, and product responsibility for the social initiatives, and invest in the sustainable materials sourcing and water management for the environmental initiatives.

5. Interviews Results and Discussions

In this section, we first illustrate and discuss the findings on the consumers' expectations toward the fashion brands' CSR practices. To facilitate ease of reading, the characteristics of the respondents are placed in the Online Publication Materials (B).

5.1 Interviews Results

Customer's expectation on social engagement. Table 6a, Table 6b, and Table 6c indicate the customer's expectation on the brand's social practices. First, all respondents expected that labours should be treated ethically with reasonable wages and working hours, and child labour should be abandoned, for all types of fashion brands. In addition, they also demanded the brands to focus on occupational health and safety of both labours and consumers by addressing the avoidance usage of toxic chemicals during the apparel production process. Interestingly, fast fashion brand consumers had a slightly higher expectation on H&M in terms of the labour practices and decent work under the social engagement, when compared with other types of fashion brand consumers. To be specific, H&M is a fast fashion brand offering fashionable and timely products with an affordable price. Its quick response operations mechanism and huge product variety require a significant amount of workforce in the manufacturing factory. To lower the production cost, H&M produces the products in the developing countries such as Bangladesh, Morocco, and China. H&M consumers thus also concerned much more on the human rights issues. Furthermore, respondents not only cared the welfares of workers, but also the animals. They suggested that H&M and LV should stop producing apparel product using animal furs and avoid conducting animal tests in the manufacturing process. As for the luxury fashion products, they are characterized by superior product quality, exclusivity, and uniqueness (Chiu et al., 2018). Traditionally, luxury fashion products such as shoes, handbags, and clothing are made of exotic leathers and animal fur to create the sense of exclusiveness and product scarcity. Nowadays, the desire of wearing the animal fur is different from the past decade and people think that luxury brands should avoid using animal fur to become sustainable (Bruno and Barki, 2017). In real world observation, it is

witnessed that luxury brands, such as Chanel, Prada, Gucci, have stopped using fur and exotic leathers³ to become sustainable.

Table 6a. Respondents’ expectations toward H&M in terms of social engagement

| Brand | Respondents’ expectations | | Narration by respondents |
|-------|----------------------------------|--|---|
| | Aspect | Issues | |
| H&M | Labour practices and decent work | Employment: Reasonable wages | “It should be ensured that the employees enjoy labour rights.” (From Respondent HF) “The wages of production workers should not be too low. It has to be reasonable.” (From Respondent HM) |
| | | Occupational health and safety: Product is safe to be produced | “H&M should adopt international standards to make sure that their products are safe to manufacturing workers and consumers” (From Respondent HM) |
| | Human rights | Non- discrimination: No gender and races discrimination | “H&M should not discriminate against any types of human. Every human being should be respected no matter their gender or races.” (From Respondent HF) |
| | | Child labour: No child labour | “Child labour usually has less bargaining power compared to adults. H&M should not employ child labour in order to maintain low cost of production.” (From Respondent HF) |
| | Product responsibility | Customer health and safety: Product is safe to be used | “H&M should adopt international standards to make sure that their products are safe to manufacturing workers and consumers.” (From Respondent HM) |
| | | Compliance: Product safety is compliance to ISO | “They (H&M) may adopt international standards like ISO to ensure the safety of the workers and consumers.” (From Respondent HM) |
| | Others | Animal welfare ⁴ | “No animal tests should be done because animal testing is not fair to animal and causes injury to the animal being tested.” (From Respondent HF) |

Table 6b. Respondents’ expectations toward Nike in terms of social engagement

| Brand | Respondents’ expectations | | Narration by respondents |
|-------|----------------------------------|--|--|
| | Aspect | Issues | |
| Nike | Labour practices and decent work | Employment: Reasonable wages | “I think the employees should not be given too much work to do in limited time and they should be paid a reasonable wage for their work. I think these apply to all employees in the company, in both developed and developing countries.” (From Respondent NF) “Employees should be paid higher wages that are equivalent to their contributions to the company, especially for the production labour.” (From Respondent NM) |
| | | Occupational health and safety: Product is safe to be produced and non-toxic | “Toxic substances should not be found in any products sold by Nike.” (From Respondent NM) |
| | Human rights | Child labour: No child labour | “Nike should not employ child labour for their production.” (From Respondent NM) |
| | Product responsibility | Customer health and safety: Product is safe to be used | “Products have to be safe without the use of any harmful chemicals.” (From Respondent NF) |

³ <https://www.elle.com/fashion/a19702518/fashion-brands-that-are-going-fur-free/> (accessed 16 June 2020)

⁴As a remark, animal welfare is not included in the GRI reporting guideline.

Table 6c. Respondents' expectations toward LV in terms of social engagement

| Brand | Respondents' expectations | | Narration by respondents |
|---------------|----------------------------------|--|--|
| | Aspect | Issues | |
| Louis Vuitton | Labour practices and decent work | Employment: Reasonable wages, working hours, working condition | "I think that LV should ban the use of sweatshop for production. Fair trade is important. Labours should be paid for what they have done reasonably." (From Respondent LF) "The company should set up maximum working hours and minimum wages. LV should also be ensured that the working environment is good and comfortable for the employees." (From Respondent LM) |
| | | Occupational health and safety: Product is safe to be produced and non-toxic | "Production of fashion product always involves in use of chemicals and thus Louis Vuitton must ensure that there are no toxic chemicals in their products." (From Respondent LF) |
| | Human rights | Child labour: No child labour | "All brands should abolish the use of child labour especially for such an international luxury brand." (From Respondent LM) |
| | Product responsibility | Customer health and safety: Product is safe to be used | "Production of fashion product always involves in use of chemicals and thus Louis Vuitton must ensure that there are no toxic chemicals in their products." (From Respondent LF) |
| | Others | Animal welfare | "Animal testing is not good for two reasons. The first one is that animal tests are usually cruel to the tested animals. The second reason is that conducting animal test implies that there are potential harmful components in the product." (From Respondent LF) "I think animal also have rights and no real fur should be used in production of garment." (From Respondent LM) |

Customer's expectation on environmental engagement. Table 7 presents the customer's expectation on the brands' environmental practices. In Table 7, it reveals that reducing pollution (in terms of water and greenhouse gases emissions) is the common environmental expectation of the customers regardless the types of fashion brand. Besides, recycling the used apparel or waste to develop new fabric for producing garments is another focal point of the customers toward the fast fashion and functional fashion brands. Notice that customers of the luxury fashion brand had the least expectation on the environmental practices of the brands. They expected the luxury fashion brands can reduce the water pollution in the manufacturing process only. This phenomenon is consistent with the previous study reported by Janssen et al. (2014) in which the scarcity of the luxury product will affect how the customers view the CSR of a luxury fashion brand. Janssen et al. (2014) consider that the luxury products with the characteristics of being long lasting and timeless are regarded as sustainable when

the scarcity level is high. In addition, customers are more aware of the product quality rather than the sustainability practice of the luxury fashion brand (Achabou and Dekhili, 2013). As a result, our respondents also had a relatively lower environmental expectation towards the luxury fashion brand.

Table 7. Respondents’ expectations in terms of environmental engagement

| Brand | Respondents’ expectations issue | Narration by respondents |
|---------------|--|--|
| H&M | Water: Water pollution reduction | “Air pollution is serious in manufacturing and it may include discharge of greenhouse gases. Also, production of garment usually leads to pollution of water so I think H&M, as a huge fast fashion brand, should reduce these pollutions.” (From Respondent HF) |
| | Emission: Air pollution reduction | |
| | Effluents and waste: Landfill reduction by recycling | “H&M always has new collection of products and the style changes quickly. These lead to quick consumptions and quick disposal of garments. Therefore, recycling of garment is important to reduce the amount fashion products disposed into landfills.” (From Respondent HM) |
| Nike | Materials: Eco-friendly sourcing and production | “They may use environmentally friendly materials in their products.” (From Respondent NM) |
| | Water: Water pollution reduction | “Nike should try to produce less air and water pollution, in all processes from manufacturing to selling products.” (From Respondent NM) |
| | Emission: Air pollution reduction | |
| | Effluents and waste: Landfill reduction by recycling | “I think they can recycle used material and use sustainable material for production.” (From Respondent NF) |
| Louis Vuitton | Water: Water pollution reduction | “Louis Vuitton may reduce pollution such as freshwater pollution because production of apparel products usually involves in consumption of a lot of freshwater and emission of large amount of sewages.” (From Respondent LF) “Maybe they can produce less water pollution because, as I know, manufacturing factories always release a lot of used and dirty water into rivers nearby.” (From Respondent LM) |

Satisfaction on the CSR reporting. Table 8 summarizes the satisfactory level of the respondents towards the CSR reporting of the brands and their suggestions on CSR communication. In Table 8, we know that all respondents are willing to learn more about the CSR practices of the fashion brands. For example,

“I would like to know more (about the CSR of the brand) because I want to know how my buying decisions affect the environment.” (From Respondent LM)

Besides, the majority of the respondents commented that the fashion brands do not have sufficient effort in communicating their CSR initiatives to the public as shown below.

“Nike itself has not enough communication about its CSR but the media would report what Nike has done, both good and bad performance. For Nike itself, it is not enough, and it can be more.”

(From Respondent NM)

“There is not enough (CSR communication) and usually luxury brands like Louis Vuitton has no promotion on CSR. Their promotion mainly focuses on history, design and product quality of the brand.” (From Respondent LF)

“H&M’s CSR communication is above average but they can provide more information to the consumers”. (From Respondent HM)

Respondents suggested various measures to increase the transparency of the brand’s CSR practices. For the fast fashion and functional apparel consumers, they recommended the brands to make use of the social media such as official website and online advertisement as a communication channel. On the other hand, luxury fashion consumers suggested conveying the CSR practices through the salesperson and collaborating with the green groups to increase the awareness of the public.

Table 8. Summary of the satisfactory level of the respondents to the CSR reporting of the brands and their suggestion on CSR communication.

| Respondent | Willingness to learn the CSR practice of the brand? | Level of satisfactory to the CSR information provided by the brand | Suggestion of CSR communication channel |
|------------|---|--|--|
| HF | ✓ | Low | Put specific section on official website to promote CSR |
| HM | ✓ | Above average | Advertisement on social media |
| NF | ✓ | Low | Using posters in stores, posting the CSR information on social media, inside the shoes boxes, or packaging |
| NM | ✓ | Low | Advertisement |
| LF | ✓ | Low | Introduction by salespeople |
| LM | ✓ | Low | Collaborations with green groups |

Perceived level of CSR commitment. Table 9 shows the respondents' perceived level of CSR commitment on each type of fashion brand. Table 9 demonstrates that half of the respondents suggested that the fast fashion brand should exert more efforts on CSR commitment. This can be explained by the attribute of the fast fashion products. The concept of fast fashion is to respond quickly to the fashion trends by matching the demand with supply with an affordable price. The low price nature of the fast fashion product induces the consumers to have impulse purchase which will result in a huge quantity of unwanted apparel going to landfill. On the other hand, because of the low price, the manufacturer has to earn profit by sacrificing the social welfare, environmental commitment, labor safety, etc. Interestingly, one respondent commented that luxury fashion brands should bear a higher level of CSR responsibility according to their resource availability.

Table 9. Summary of the perceived level of CSR.

| Respondents | Which type of fashion brand should commit a higher level of CSR? | Reasons |
|-------------|--|---|
| HF | Fast fashion | Fast fashion is perceived to be not sustainable so there is need for improvements in CSR |
| HM | Fast fashion | They have resources and a huge amount of labour is involved in a fast fashion company |
| NF | Luxury | Price of their product is high so that they have higher profits and resources to do CSR |
| NM | Sportswear | Sportswear brands have relatively wider customer base |
| LF | No particular type of brand has higher responsibility | Every brand has responsibility, but brands should dedicate to CSR based on the amount of resources that they have |
| LM | Fast fashion | Serious pollution produced by them, large customer base and poor customers perception |

5.2 Discussions

Regarding the social sustainability performance, most of the the respondents' expectation are satisfied except the luxury fashion consumers. See Table 10a, Table 10b, and Table 10c for the comparison. LV provides mutually agreed working hours, good working condition to its senior employees which match the consumers' expectation, however, it is unclear whether a fair remuneration is provided to the employees. In addition, due to the information insignificance, it is impossible to conclude that luxury consumers' expectation, such as the child labour abandon, products safety as well as no animal fur utilization and animal test, are fulfilled. In the environmental engagement, the prime concern of the

luxury fashion consumers is the water pollution. However, LV has not presented the related information to the public to satisfy the consumer's interests. See Table 11 for details. It should be noted that government regulations, social norms, customer's expectation and climate are dynamic and keep on changing. Nowadays, customers demand the brands to do "good things" rather than do "fewer bad things" and they shift their focus to experience from the product itself in the luxury market (Winston, 2016). According to the institutional theory, the fashion brands, especially LV, should understand the CSR expectation of the customers and then satisfy their CSR concerns to generate a better marketing positioning (Li et al., 2016).

Table 10a. Comparison between respondents' expectations and brands' performances in terms of social engagement of H&M.

| Brands | Respondents' expectations issues | Brands' CSR practices indicated in its sustainability report | Does the expectation match? |
|--------|--|---|-----------------------------|
| H&M | Employment: Reasonable wages | Established a roadmap in 2013 to provide a "fair living wage covering workers' basic needs" which applies to all employees of H&M including those who are employed by the vendors | ✓ |
| | Occupational health and safety: Product is safe to be produced | H&M has developed a Best Chemical Management Practice (BCMP) scheme for the vendor to reduce the use of hazardous substances during the production process. | ✓ |
| | Non-discrimination: No gender and races discrimination | H&M does not accept any discriminations in employment against sex, race, colour, age, pregnancy, sexual orientation, religion, political opinion, nationality, ethnic origin, disease or disability | ✓ |
| | Collective bargaining | All H&M's employees have the right to form or join unions of their own preferences, and to bargain collectively | ✓ |
| | Child labour: No child labour | H&M does not employ any labour aged below 15 or younger than the minimum legal age for employment in particular regions | ✓ |
| | Product responsibility: Product safety is compliance to ISO | No information is disclosed | ? |
| | Others: Animal welfare | No animal testing is carried out on H&M's cosmetics during production or on the finished products | ✓ |

Table 10b. Comparison between respondents' expectations and brands' performances in terms of social engagement of Nike.

| Brands | Respondents' expectations | Brands' CSR practices indicated in its sustainability report | Does the |
|--------|---------------------------|--|----------|
|--------|---------------------------|--|----------|

| | issues | | expectation match? |
|------|--|--|--------------------|
| Nike | Employment: Reasonable wages | - Offering a competitive salary that reflects the responsibilities, capabilities, experience and performance of employees | ✓ |
| | Occupational health and safety: Product is safe to be produced | - Developed a Restricted Substances List (RSL) in 2001 which list out the chemicals standards and include substances that they had voluntarily banned from products - Established a Chemistry Centre of Excellence for controlling the competence and resources so as to relief the potential risks | ✓ |
| | Child labour: No child labour | - Prohibited the child labour employment by fulfilling the minimum working age of the national legislation and requiring their employees aged 16 or above. | ✓ |
| | Customer health and safety: Product is safe to be used | - No information is disclosed | ? |

Table 10c. Comparison between respondents' expectations and brands' performances in terms of social engagement of Louis Vuitton

| Brands | Respondents' expectations issues | Brands' CSR practices indicated in its sustainability report | Does the expectation match? |
|---------------|--|---|-----------------------------|
| Louis Vuitton | Employment: Reasonable wages, working hours, working condition | - No information regarding the wages of the employees is disclosed. - Management team arranged a discussion session with retail teams to make agreements on opening hours of retail store in France - Flexible working time arrangement for older employees in France and Germany | Partial |
| | Occupational health and safety: Product is safe to be produced and non-toxic | - Eradicated the usage of chemical substances against the compliance with LVMH RSL - Propelled the Innocuousness Plan in 2014 to enhance its regulations for managing the restricted chemicals and prolong the guideline of unfavourable chemicals in merchandises | ✓ |
| | Child labour: No child labour | No information is disclosed | ? |
| | Customer health and safety: Product is safe to be used | No information is disclosed | ? |
| | Others: Animal welfare | No information is disclosed | ? |

Table 11. Comparison between respondents' expectations and brands' performances terms of environmental engagement

| Brand | Respondents' expectations | Brand's CSR practice indicated in its sustainability report | Does the expectation match? |
|-------|---------------------------|---|-----------------------------|
| H&M | Water pollution reduction | - Requires vendors who work with dyeing and washing process to treat the wastewater that all outbound wastewater must be handled before discharging. -The wastewater quality in the supply chain of H&M must | ✓ |

| | | | |
|---------------|--------------------------------------|--|---|
| | | fulfil the requirement set by the Business for Social Responsibility (BSR) Water Group or relevant local regulations. | |
| | Air pollution reduction | H&M has transported its products by trains and ships to reduce the carbon dioxide emissions and saved the natural gas in the manufacturing factories located in worldwide. | ✓ |
| | Landfill reduction by recycling | Garment collection programme, which is the largest retail garment take back system, to prevent fabrics to put into landfills and to “close the textile loop” in long term | ✓ |
| Nike | Eco-friendly sourcing and production | 98% of Nike footwear composed by the environmentally favoured rubber. Besides, it also sourced the environmentally friendly cotton such as organic cotton, recycled cotton, Better Cotton Initiative (BCI)-licensed cotton for the garment production. | ✓ |
| | Water pollution reduction | Nike has applied the ColorDry technology to dye textile without water. | ✓ |
| | Air pollution reduction | Nike has developed an innovative material, Flyleather, which helps reduce the carbon discharges in the production | ✓ |
| | Landfill reduction by recycling | Nike has recycled the waste generated from both the manufacturing process and post-consumption and the recycled waste is used to create the innovative materials called Nike Grind for producing the new apparel and footwear. | ✓ |
| Louis Vuitton | Water pollution reduction | No information is disclosed | ? |

According to the GRI reporting guideline, it is found that there are a lot of issues that LV has not revealed. We argue the underlying reason is that the brand may not perform well in those social issues or has done little to address the interests of the stakeholders as suggested by signaling theory. Signaling theory states that firms which have significant contribution are more willing to disclose the relevant information to the public (Longoni and Cagliano, 2018). Therefore, some improvement programs should be planned and implemented. When compared with the social and the environmental engagements, we find that LV should pledge more efforts to improve their CSR commitment on social practices. Under the social category, the brand should not only consider the worker’s welfare but also the society and consumer welfare. LV should take initiative to deal with the child labor, product safety and animal welfare issues as the customers have a high expectation but relevant information is not disclosed (as discussed in Section 4). On the other hand, it also has a deficiency in the field of green marketing and communication. LV should seek for an efficient way to promote its CSR practices to the public. This observation can partially explain why the respondents are not satisfied with the brands’ CSR communication as shown in Table 8.

6. Analytical Modeling Studies

From the case study, we note that different types of fashion brands (i.e., fast fashion, functional fashion and luxury fashion) have different levels of CSR engagement. In this section, by building a consumer utility based analytical model, we examine the managerial implications behind this difference and propose measures to help.

We consider that a fashion brand sells a fashion product in the market at a unit price p . The product is produced by a factory (called manufacturer) at a unit cost m , and the factory charges the fashion brand a unit wholesale price c . As the price of the product is strategically given based on the brand position, rather than an operational decision, we do not consider the pricing decision in our model. Instead, we consider the common case in fashion industry that the brand affects demand by using advertisement ϕ , at a cost of $\frac{k\phi^2}{2}$. This advertisement refers to the marketing promotion activities for brand building. In addition, the fashion brand also invests in sustainable programs. This CSR commitment incurs a fixed cost F and an extra production cost per unit of product $e\gamma$ to the fashion brand, where γ is the CSR commitment level. To the manufacturer, the per unit production cost also increases by $\eta\gamma$, together with an additional fixed cost T . The reason behind this modeling assumption is that, in order to implement CSR, the fashion brand has to adopt ethical sourcing and ethical production. The production cost will then go up and even the label of each product may need to be amended to reflect this point. The same applies to the manufacturer. With the advertisement level (not related to CSR) ϕ and the CSR commitment level γ , the consumers will increase their valuation towards the product by $a\phi$ and $b\gamma$, respectively.

We consider a market with a market size normalized to be 1. Consumers in the market have heterogeneous valuations towards a fashion product u , and u follows a distribution function $F(\cdot)$. Following the common norm in the literature, to enhance tractability, we consider the case that $F(\cdot)$ is

a $[0,1]$ uniform distribution, i.e., $F(\cdot) = U[0,1]$. The event sequence is as follows: First, the manufacturer announces the unit wholesale price c (which is exogenously given). Then, the fashion brand determines the optimal CSR commitment level and the optimal advertisement level to maximize profit. The demand faced by the fashion brand is given as follows:

$$D = \int_{p-a\phi-b\gamma}^1 f(u)du = (1 - p + a\phi + b\gamma).$$

The profit function of the fashion brand (FB) becomes:

$$\Pi_{FB} = (p - c - e\gamma)(1 - p + a\phi + b\gamma) - F - \frac{k\phi^2}{2}.$$

We have Lemma 1 which shows that if the marginal cost of the advertisement is sufficiently high, the fashion brand's profit function is then concave. Consequently, both the optimal CSR commitment and optimal advertisement level exist.

Lemma 1. *If $k > \frac{a^2e}{2b}$, then Π_{LSB} is a strictly concave function of ϕ and γ .*

With Lemma 1, we can derive Proposition 1 by solving the optimal decisions by using the first order conditions. In the rest of this section, unless otherwise specified, we will assume that $k > \frac{a^2e}{2b}$ holds so that we can conduct closed form analytical analysis. Define $\theta = \frac{b}{e}$ as the cost effectiveness of CSR commitment. We have Proposition 1.

Proposition 1. *The optimal CSR commitment and the optimal advertisement levels are given as follows:*

$$\gamma^* = \frac{a^2ec - k(bc+e) + [k(b+e) - a^2e]p}{e(2bk - a^2e)},$$

$$\phi^* = \frac{a(p-c)}{k} - \frac{ae\gamma^*}{k}.$$

From the expression of ϕ^* , it is obvious that γ^* are inversely related. In other words, a larger γ^* will lead to a smaller ϕ^* , and vice versa. To be specific, from the expression of γ^* and the first order condition, it is easy to find that a product with higher selling price will generate a higher optimal CSR commitment level if and only if $\theta > \frac{(a^2-k)}{k}$. In addition, from the expression of ϕ^* and the first order condition, we also find that a product with a higher selling price will result in a higher optimal

advertisement level if and only if $b > e$. Therefore, the cost effectiveness of CSR commitment plays an important role in both the optimal CSR commitment level and the optimal advertisement level. We have Proposition 2.

Proposition 2. (a) *If the cost effectiveness of CSR commitment is sufficiently low (i.e., $\max\left\{\frac{a^2}{2k}, \frac{a^2-k}{k}\right\} < \theta < 1$), then a higher product retail selling price will imply a higher optimal CSR commitment γ^* , and a lower optimal advertisement level ϕ^* ; (b) On the contrary, if the cost effectiveness of CSR commitment is sufficiently high (i.e., $\max\left\{\frac{a^2}{2k}, 1\right\} < \theta < \frac{a^2-k}{k}$), then a higher product retail selling price will imply a lower optimal CSR commitment γ^* , and a higher optimal advertisement level ϕ^* .*

Proposition 2 is a very important finding. For instance, implementing CSR can be very expensive for both fast fashion and functional brands, and hence we argue that the cost effectiveness of CSR commitment is low for these two types of fashion brand. Accordingly, when the retail selling price of the fashion products are high, for example, the prices of the functional product (e.g., sportswear) are generally higher than that of the fast fashion products, the optimal CSR commitment γ^* will be higher, and the optimal advertisement level ϕ^* will be lower. This result explains that it is not the best decision if the functional brands set a low CSR commitment level with a high advertisement level. In other word, they should put more efforts in CSR activities and spend less for the typical marketing promotion via advertisement. Results of Proposition 2 is aligned with our case study finding that Nike has the highest CSR commitment level in real world practice among the selected fashion brands, and it should keep seeking ways to improve the product safety (as expected by consumers) to maintain a high CSR commitment. For the fast fashion brand, such as H&M, it should set a higher selling price for the sustainable product line “conscious” that the products are made by sustainable raw material (e.g., organic cotton, recycled polyester). Differently, for luxury fashion, although it is widely abused for its use of fur and leather from rare and wildlife animals, there is less blame on its negative social and environmental impacts on other aspects like water pollution and landfill problem. Therefore,

implementing CSR is not as expensive as the case for fast fashion and functional brands, which means the cost effectiveness of CSR commitment for luxury fashion can be relatively high. Proposition 2(b) shows that the high retail price feature of luxury fashion will only lead to a lower optimal CSR commitment in practice and a high advertisement level.

Now, we turn our focal point to the manufacturer. In the fashion supply chain, most manufacturers (i.e. factories) are being controlled by the fashion brands. Thus, in the following analysis, we consider that the manufacturer is a passive player in the supply chain and explore how the decisions of the fashion brand would affect the benefit of the manufacturer.

The profit function of the manufacturer is:

$$\Pi_{MAN} = (c - m - \eta\gamma)(1 - p + a\phi + b\gamma) - T.$$

We have Proposition 3.

Proposition 3. *If the current level of CSR commitment γ by the fashion brand is sufficiently low (i.e., $\gamma < \frac{b(c-m)-\eta(1-p+a\phi)}{2b\eta}$), increasing γ is beneficial to the manufacturer. If the current level of CSR commitment γ by the fashion brand is sufficiently high (i.e., $\gamma > \frac{b(c-m)-\eta(1-p+a\phi)}{2b\eta}$), increasing γ is not beneficial to the manufacturer.*

Proposition 3 shows an interesting result. In the fashion supply chain, whether increasing the CSR commitment level by the fashion brand is good for the manufacturer or not depends on the existing level of the CSR commitment. If it is of a low level, increasing CSR commitment will help to improve the manufacturer's profit since the dominant fashion brand can provide additional CSR support to the manufacturer, which can benefit the whole supply chain including the manufacturer. For example, H&M has kept helping its suppliers to implement the best CSR practices in the past years, together with some extra CSR training, such as the Chemical Management Practice specific to the

suppliers⁵. If it is of a sufficiently high level, however, increasing it doesn't help to benefit the manufacturer.

Proposition 4. *Suppose that the current CSR commitment of the fashion brand is relatively low (i.e., $\gamma < \frac{b(c-m)-\eta(1-p+a\phi)}{2b\eta}$), if the fashion brand can achieve $\theta > \max\{\frac{a^2}{2k}, \frac{a^2-k}{k}\}$, then for the fashion brand with higher-priced products, it is in fact beneficial to increase CSR commitment further; and this act will also benefit the manufacturer.*

Referring to the findings in Proposition 3, Proposition 4 shows how a high cost effectiveness of CSR commitment may help to create a CSR-improving situation to both the fashion brand and its upstream manufacturer when the supply chain aims to achieve a higher level of CSR commitment. Specifically, Proposition 4 is relevant to the real world practices on disruptive technology such as the blockchain technology deployment (Choi et al., 2020), which is widely acknowledged as its advantage in increasing the sustainability transparency along the supply chain. The increased sustainability transparency can improve the current low level of CSR. For example, LV is planning to launch blockchain technology supported system to help with product authenticity of its high-priced products⁶. Prada is also doing the same thing⁷. Naturally, it will also be helpful to deal with CSR and ethical sourcing related matters as blockchain technology can enhance supply chain transparency, including the full product provenance details (Choi, 2019).

7. Conclusion, discussions and Future Studies

This paper examines CSR in fashion supply chains by applying a multi-methodological approach. We first investigate the CSR performance and consumer expectation towards luxury, fast fashion and

⁵https://sustainability.hm.com/content/dam/hm/about/documents/masterlanguage/CSR/2018_sustainability_report/HM_Group_SustainabilityReport_2018_Chapter6_Standards%26Policies.pdf (accessed 24 March 2020)

⁶<https://www.coindesk.com/louis-vuitton-owner-lvmh-is-launching-a-blockchain-to-track-luxury-goods> (accessed 16 May 2019)

⁷<https://www.forbes.com/sites/andrewrossow/2018/09/01/appraising-the-luxury-goods-market-with-blockchain-technology/> (accessed 16 May 2019)

functional brands through case study and semi-structure interviews. Then, the optimal CSR commitment and advertisement levels are examined through analytical analysis. We find that Nike has the highest CSR commitment level, followed by H&M and LV. Our analytical results show that the cost effectiveness of CSR commitment will affect the optimal CSR commitment and advertisement levels of the fashion brand. To be specific, it is optimal for the higher-priced fast fashion and functional brands to commit a high CSR commitment with a low advertisement level, while the luxury brands should act oppositely. We also provide important insights for the luxury fashion brands to create a CSR-improving situation in which the supply chain aims to achieve a higher level of CSR commitment and the upstream manufacturer is also benefited.

This study has the following limitations. First, we focus on exploring the CSR practices of three fashion brands only and our evaluation is solely on these brands' levels of CSR engagement in social and environmental aspects⁸. In the future, it will be interesting to expand our coverage to explore more different types of fashion brands. Second, in this study, we have only conducted six interviews to collect consumer comments and data. In the future, it will be a good idea to conduct a questionnaire survey and conduct statistical analysis to see if new supplementary findings can be obtained. Finally, the analytical study can be further extended to evaluate the social welfare if consumer surplus is considered.

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⁸ In this study, we do not consider the economic category of the CSR. According the GRI reporting standard, the economic category includes the economic performance, market presence, indirect economic impacts which are not commonly exhibited in the standalone sustainability reports of the targeted fashion brands.

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Appendix

Proof of Lemma 1: The profit function of the fashion brand is:

$$\Pi_{FB} = (p - c - e\gamma)(1 - p + a\phi + b\gamma) - F - \frac{k\phi^2}{2}.$$

Accordingly, the Hessian Matrix of Π_{FB} is: $|H| = \begin{vmatrix} -2eb & -ea \\ -ea & -k \end{vmatrix}$. It can thus be found that Π_{FB} is a

strictly concave function of ϕ and γ is and only if $k > \frac{a^2e}{2b}$. (Q.E.D.)

Proof of Proposition 1: Under the condition of $k > \frac{a^2e}{2b}$, by taking the first order derivations of Π_{FB}

with respect to ϕ and γ , it can be found that the optimal CSR commitment and the optimal

advertisement level are: $\gamma^* = \frac{a^2ec - k(bc+e) + [k(b+e) - a^2e]p}{e(2bk - a^2e)}$, and $\phi^* = \frac{a(p-c)}{k} - \frac{ae\gamma^*}{k}$. (Q.E.D.)

Proof of Proposition 2: Proposition 2 can be proved by taking the first order derivations of γ^* and

ϕ^* with respect to the retail selling price p , respectively. (Q.E.D.)

Proof of Proposition 3: The profit function of the manufacturer is:

$$\Pi_{MAN} = (c - m - \eta\gamma)(1 - p + a\phi + b\gamma) - T.$$

By taking the first order derivation of Π_{MAN} with respect to γ , Proposition 3 can be proved. (Q.E.D.)

Proof of Proposition 4: Proposition 4 is based on the first order derivations derived from Proposition

2 and Proposition 3. (Q.E.D.)