

Study on the Motivation and Consequences of Corporate Greenwashing Behavior-Taking H&M as an Example

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Abstract. With today's global economic development, the public's attention to environmental issues and sustainable development is increasing, and various environmental protection-related laws and regulations are also being improved. In this context, environmental protection, social responsibility, sustainability and other green concepts have become the new keywords for enterprise development. However, the rich dividends brought by green development also make some enterprises begin to speculate, through false or exaggerated information to promote its green development contribution and low-carbon environmental protection image, which has resulted in the greenwashing behaviors. Based on this, this paper establishes the research direction of the causes and consequences of corporate greenwashing behaviour, and adopts the case study method and the event study method to select H&M, a representative fast fashion company, as the research object, to sort out and analyse the causes behind the greenwashing behaviour of H&M, as well as the impacts of the company's financial performance, market response and reputation after the exposure of the greenwashing incident.

1 Introduction

In the current global economic development, "green" has gradually become the keyword for the development of enterprises in pursuit of sustainability. In this environment, ESG information disclosure is getting more and more attention from various parties, and the disclosure of environmental information is gradually playing a greater role in influencing corporate performance and corporate image; green development and sustainable development have become the focus of attention of various enterprises.

Against this background, the significant benefits of green development have become more and more noticeable. As a result, many companies have begun to exaggerate or misrepresent their efforts to protect the environment in order to gain more benefits, while in fact doing the opposite. This is a kind of open deception, companies take lying or even fraudulent methods, their traditional products as green products, the products did not obtain environmental protection certification labelled with false environmental protection mark, this

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is "greenwashing" behaviour. Greenwashing is a selective disclosure behaviour deliberately initiated by enterprises. It is a kind of false environmental protection propaganda, which also reflects the lack of corporate social responsibility on the part of the enterprises themselves [1-2].

H&M, as a representative fast-fashion company, has a large consumer base and a certain degree of global popularity, with its products covering a wide range of countries and regions. The company has made a lot of publicity on the environmental behaviour of this enterprise, promising to use sustainable materials and committing to reducing carbon emissions, but it has been pointed out for many years by a number of international media that its publicity of green production contains false green information, such as the Chinese media Southern Weekly, which has included H&M in the annual list of greenwashing enterprises. H&M has repeatedly triggered public opinion on the greenwashing behaviour of this enterprise, based on the company's market influence, the gap between environmental commitments and actual practices, etc., H&M has become a good research object to study the drivers of greenwashing behaviour and its impact [3].

In 2018, Zhang Keqin et al. published an article in the Finance and Accounting Newsletter, finding that greenwashing behaviour triggers a significant stock price decline; at the same time, such a negative effect deepens as the concept of the environment penetrates into the society and environmental regulations continue to be improved. On this basis, the study of "greenwashing" and the analysis of its consequences will help the society to be more vigilant in paying attention to and identifying such behaviours of certain enterprises; it will also help to make enterprises aware of the seriousness of such behaviours and raise their awareness to take the real green development path and fully fulfil their corporate social responsibilities [4].

2 Case overview

2.1 Basic situation of H&M

H&M was founded by Erling Pearson in Sweden in 1947, and its business scope has developed from women's clothing to men's clothing, children's clothing and cosmetics, etc. H&M has a wide layout in the world, and as of 2024, H&M has more than 3,000 shops in 28 countries around the world, which are located in Europe, Asia, and the Americas, and it is the largest apparel retailer in Europe.

2.2 Overview

In 2013, H&M promoted an environmental initiative called "Used Clothes Recycling Programme" in more than 40 countries and regions around the world, setting up recycling bins in its retail shops to collect any type of clothes of any colour submitted by consumers, and those who submit used clothes can get discount coupons of H&M. H&M claimed that the recycled clothes are processed by the world's largest clothing recycling company, which sorts and evaluates them according to nearly 400 different criteria, and makes those that are not suitable for re-wearing into other textile products, while others that are better preserved are treated as second-hand clothes.

In 2017, H&M released its 2017 Sustainability Report, which showed that the company recycled a total of 17,771 tonnes of textiles through its Used Clothes Recycling Programme. According to the data presented in the company's sustainability report, only 1.4% of the company's materials were recycled. In addition, the company that processes used clothes for H&M, said that only about 35% of the clothes sent to the sorting machines were recycled. In 2019, H&M began to promote its "Conscious Collection" line of products, which it produces

for the environment. The collection claims to be made from recycled and sustainable materials but actually uses more synthetic materials than its main range. Recycled materials are reported to account for only 2.2 % of the total, which is still a very low percentage [5].

In 2022, the Dutch Authority for Consumers and Markets (ACM) released a report showing that H&M was suspected of "environmentally misleading advertising". In December of the same year, the US media outlet Brandingmag published an article, "H&M's Greenwashing: Short-Sighted and Unethical", which exposed that H&M labelled its corporate products as green, claiming to be committed to protecting the environment and adhering to green sustainability, but failed to provide consumers with information on the exact destination of the recycled clothing, triggering social debates [6].

3 Motivations

The fast fashion industry seeks to maximize revenue with high production efficiency. However, the cycle of trend change is extremely short, after a purchase, new products will be available in a week or less, and the old clothes will soon become outdated, and some of them will be thrown into the corner of the wardrobe without being worn by the consumers. Because of its low price, production costs dictate that fast fashion producers do not use expensive, comfortable and durable fabrics for their garments. What stimulates the consumer to buy is the novelty of the style and the colour of the garment that is in line with the trend. The untested and untested shape of the garments and the low-grade and cheap fabrics are the means by which the fast fashion brands make their profits, and "use it or lose it" has become the mainstream of the market. Also, because of the high speed of production, there is an oversupply of products in the market, and the competition within the industry has become bigger [7].

At the same time, with the continuous improvement of environmental protection regulations in various countries, the international community on environmental protection, sustainable development of the importance of also increasing. In the environmental protection concept is increasingly prevalent, the pursuit of green consumption of consumers is also further enhanced. According to statistics, 90% of consumers in Germany express a strong preference for green products, 77% of Americans are willing to pay a higher price for green products, 67% of Dutch people consider environmental issues when shopping, and the proportion of this part of the population is on the rise year by year [8].

Against this background, "going green" has become a relatively low-cost shortcut for companies to meet the new demands of investors and consumers. This leads to the "green" commodity market, often due to the high cost of green products is generally higher than the price of non-green products does not take advantage of the price, the final result is that the market is flooded with a large number of green-bleached goods, the real green goods but no trace. The "economic man hypothesis" is a famous theory in economics, which implies that individuals act and make decisions in full accordance with the principle of maximising returns. H&M has captured the trend and launched a new sustainable children's clothing collection in collaboration with international environmental organisations, such as the World Wide Fund for Nature (WWF) Green Initiative project in 2018. H&M combines its social responsibility and marketing by following policy guidance and industry trends, thus creating a good green brand image, but fundamentally, H&M's behaviour is actually for the survival, development and interests of the company. For fast fashion companies such as H&M, a complete green transformation of the company requires a large, long-term investment and does not meet its requirements as a fast fashion company for efficiently pushing products to consumers to attract consumption. Based on the neoclassical economics framework, enterprises pursue profit maximisation with the lowest cost and the highest return, and greenwashing becomes a rational choice for enterprises to pursue profit maximisation.

Therefore, greenwashing is undoubtedly very attractive to H&M. Greenwashing only needs to increase investment in surface work such as brand promotion, etc., to get a bigger return. And bleaching green behaviour once successful, not only can increase the sales of H&M's products, in terms of its performance has a certain degree of enhancement of the effect of its brand value is also helpful, can make the brand in the industry competition more advantageous, to provide support for its long-term development. This is a strategy for H&M to pursue higher economic benefits in one go [9-10].

As a globally renowned typical fast-fashion company, H&M appeals to consumers to donate old clothes in the name of environmental protection, and at the same time stimulates consumption by offering discounts on the purchase of new clothes, which is essentially aimed at maximising the company's economic interests.

4 Consequences

4.1 Market reaction

Event analysis is a commonly used research methodology that helps researchers assess the impact of a specific event on a company's share price or market performance by setting a window of events and using a benchmark of market returns to control for the impact of other external factors on a company's share price. This paper uses event analysis in order to isolate more accurately the share price changes directly related to the Bleaching Green event and to try to avoid the interference of other market factors in the results.

Based on this, this paper collects H&M-related data for calculation through Investing.com, and takes 10 December 2019, when Brandingmag published an article that triggered social opinion, as the event date, i.e., $t=0$. Taking 5 December 2019 to 12 December 2019 as the window period ($[-2, +2]$), and 25 June 2019 to 9 December 2019, a total of 120 days is the estimation period. According to the assumptions of the market model, there is a linear relationship between individual stock returns and market returns, which is expressed in the form of the model.

$$R_t = \alpha + \beta R_{mt} + \varepsilon \quad (1)$$

Where R_t is the stock return of H&M on day t , calculated as follows.

$$R_t = (P_t - P_{t-1})/P_{t-1} \quad (2)$$

P_t is the closing price of H&M on day t . Since H&M is listed in Sweden, the EU STOXX 600 is chosen as and is the market return of the EU STOXX 600 on day t , calculated as follows.

$$R_{mt} = (I_t - I_{t-1})/I_{t-1} \quad (3)$$

Where I_t is the EU STOXX 600 day t , and is the regression coefficient; and is the random error term. Fitting the H&M stock return to the EU STOXX 600 through the EXCEL tool regression yields $\alpha=0.0033$, $\beta=0.7899$; in this way the formula for the expected return of H&M can be obtained as follows.

$$E(R_t) = 0.0033 + 0.7899R_{mt} \quad (4)$$

The formulae for H&M's excess return AR and cumulative excess return CAR at day t can be obtained from the expected return formula, respectively.

$$AR_t = R_t - E(R_t) \quad (5)$$

$$CAR_t = \sum AR_t \quad (6)$$

The results of the calculations are shown in Table 1 below.

Table 1. Calculation of H&M-related values

Event Date	Date	Actual stock return rate(%)	Market Yield Rate(%)	Expected stock return E(Rt)(%)	AR (%)	CAR (%)
t=-2	2019/12/05	0.42	1.16	1.25	-0.83	-0.83
t=-1	2019/12/09	1.09	-0.24	0.14	0.95	0.12
t=0	2019/12/10	-1.24	-0.26	0.12	-1.36	-1.24
t=1	2019/12/11	0.94	0.22	0.50	0.44	-0.80
t=2	2019/12/12	-0.72	0.33	0.59	-1.31	-2.11

From the above table, it can be seen that before the outbreak of public opinion, H&M stock returns remain in positive values, the increase is relatively stable. After the outbreak of public opinion, the rate of decline is obvious, and then after some improvement but did not happen substantial change, visible H&M this bleaching green event negative impact.

4.2 Financial impact

In order to reduce the interference of other factors, this paper selects two time periods before and after the H&M greenwashing incident, November 2019, February 2020, and collects relevant data through the Investing.com, calculates its operating capacity and profitability in the selected time period to analyse, and the results are as Table 2.

Table 2. Indicators related to H&M's ability before and after the green bleaching incident (%)

		November 2019	February 2020
Operational capability	Accounts Receivable Turnover Ratio	0.91	0.21
	Inventory Turnover Rate	0.74	0.67
	Asset Turnover Ratio	0.04	0.01
Profitability	Net Profit Margin	0.78	0.72
	Operating Profit	561.5	279.8
	Gross Margin Ratio	0.54	0.51

Before and after the greenwashing behaviour of H&M enterprises, this time is in the European market's holiday sales season from November to February, normally the sales volume should show a rising trend, but through the view of Table 2 can be found, its operating capacity, profitability levels have shown a downward trend, and despite the subsequent recovery, but the overall level is still lower than the industry average, and did not quickly return to the level of the incident before the incident occurred, which this indicates that the greenwash behaviour had a negative impact on the company's profitability and efficiency.

4.3 Non-financial impact

Bleaching can lead to consumer suspicion and distrust: H&M tried to create an environmentally friendly image through green labels, but it was exposed that it actually had "bleaching" behaviour, which led to consumers questioning its integrity, and H&M was subjected to a class-action lawsuit by consumers for carrying out bleaching, which triggered a wide range of social opinions. In the fashion industry, H&M's "green-bleaching" behaviour has also received attention and criticism, and the competitiveness of its brand in the market has been greatly reduced due to its greenwashing behaviour. The incident has also attracted extensive attention from the international environmental community. Many international environmental groups have expressed serious concern about H&M's green marketing

strategies. Take the 2022 survey by the Dutch Authority for Consumers and Markets (ACM) as an example, the organization pointed out in its detailed survey report that H&M was suspected of misleading consumers about environmental protection. Due to the exposure of a series of H&M's greenwashing behaviours, the outside world's questioning and public opinion pressure on it has been rising, and the positive brand image originally portrayed as fashionable and environmentally friendly has suffered a great deal of negative impacts, as H&M has transformed from a brand focusing on sustainability to one that has been questioned for its lack of social responsibility [11].

5 Conclusion

Nowadays, the public's concern for environmental issues and sustainable development is increasing with the continuous advancement of global economisation and the improvement of environmental regulations. In this context, the concept of green sustainable development has gradually become an important focus of attention for business development. However, the potential benefits of green development have also prompted some enterprises to adopt speculative behaviours and exaggerate their contributions to green development and low-carbon environmental protection by releasing false or exaggerated information, resulting in the so-called "greenwashing" phenomenon. In view of this, this paper selects H&M, a representative fast-fashion company, as a research case to analyse the motivation of H&M's greenwashing behaviour, and discusses the impact of the company's financial performance, market response and corporate reputation after the greenwashing incident was exposed. H&M's greenwashing behaviour has had a greater impact on its operation. In the short term, the company may have gained some market reaction by exaggerating its environmental initiatives, but in the long term, this practice will create distrust of the corporate brand after consumers perceive the irresponsible behaviour of the company, which will in turn reduce satisfaction with the corporate brand, leading to a decline in sales, volatility in share price, and the risk of facing stricter scrutiny of environmental regulation and even huge fines. In order to restore its brand image and avoid long-term damage, H&M needs to adopt a more transparent and sustainable environmental strategy and put it into real practice in order to achieve long-term business success.

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