



An In-Depth Analysis of Global Supply Chain Management Sustainability in Introducing Simulations Based on RFID & Allied Technologies in Enhancing Fire Safety for the Physical Infrastructure & Workforce¹

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ABSTRACT

An eight-story commercial building located in the Savar Upazila of Dhaka District, Bangladesh, collapsed in April of 2013. Known as the “Rana Plaza”, this building was home to a garment manufacturing factory – possibly subcontracted by the fast fashion giants H&M.

Reasons for the collapse included it being built on unsuitable land and corners cut in procurement of building materials. Becoming one of the world's worst industrial accidents with casualties of over 1100 people, this posed a serious

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problem to H&M if its link to the Rana Plaza factory was established either directly or indirectly. This would not only be a huge blow to H&M's reputation but also be detrimental to its continued efforts in becoming an industrial leader in sustainability.

H&M bears a significant share of responsibility for the ethical and environmental concerns associated with its supply chain and fast fashion practices

In 2012, Karl-Johan Persson, the CEO of H&M, had met with the Prime Minister of Bangladesh to push for higher minimum wages, regular wage adjustments, and fire safety in the garment industry – hence playing a proactive role in sustainability efforts with regards to the rights of employees. Furthermore, H&M collaborated with 18 other brands to provide 3 million workers in Bangladesh with fire safety training. Given that H&M owned none of those factories and its workers were not directly employed by them either, it can be argued that H&M was not in fact oblivious to the working conditions scenario. The phenomenon of 'over-booking' is widely prevalent in Bangladesh whereby manufacturers that are subcontracted by suppliers of international brands, take orders well past their capacity and hence jeopardize worker safety e.g., over stocking of inventory or materials (a direct result of over-booking), can actually make it impossible for a timely exit in the event of a fire. H&M, not being vertically integrated, only out-sourced manufacturing and therefore had little or no control over the internal management of the local factories in Bangladesh. Additionally, H&M was not the only client to the manufacturers at the Rana Plaza factory and others like it in Bangladesh. Consequently, its role in the deployment of any sustainability strategies may or may not align with those of the supplier's other purchasers. Although retailers like H&M usually have strict rules about subcontracting, the manufacturers they deal with do not have the time or incentive to disclose information. As a result, H&M may not even have been aware of where their garments were being manufactured and the prevalent working conditions. This is especially true given the complicated supply chains of the apparel industry, such as in this case possibly. H&M receives shipments of new styles in stores every day. Low-priced clothes and a quick turnaround are made viable through internationally out-sourced manufacturing, but this also means low-paid workers, unfair working hours and hazardous working conditions. So, it becomes an integral part of H&M's business supply chain strategy to continue its business operations with subcontractors in developing countries like Bangladesh and it thus becomes involved in any mishap or catastrophe that takes place such as the Rana Plaza building collapse and ensuing fire. The question is whether the demand for fast fashion the real culprit here or not.

H&M to consider carefully assessing and improving its operations in Bangladesh to address ethical and environmental concerns

Bangladesh offers the cheapest labor to international retailers with wage rates lower than those in China, Vietnam and Cambodia. Transportation costs, particularly to Europe, are also considerably lower in comparison to those from China. Bangladesh's garment industry comprised of 80 % of its GDP (at the time) - South Asia's biggest manufacturing sector as a share of GDP and it continues to grow. Therefore there is more likelihood of their government taking increased interest in future (to sustain revenues earned) and facilitate retailers by helping to negotiate compliance of ethical and sustainable business practices with suppliers.

Majority of the workers in garment factories in Bangladesh are women who are often left deprived of equal opportunities in developing countries. So, providing them with employment albeit via subcontracted manufacturers, is a win for H&M's sustainability efforts in terms of women empowerment.

Working conditions are not necessarily any better in more advanced countries like China even to this day, where factory workers in fast fashion apparel factories have been known to cry out for help e.g., stitching SOS notes onto the garments. Playing a proactive role in negotiating better wages for workers in Bangladesh, may still enable H&M to retain its competitive advantage in sourcing the garments from there as the other costs of production are also significantly lower than in the region at large.

Workers in Bangladesh have become increasingly skilled in garment manufacturing and may have more willingness to learn, especially as their economy heavily relies on this industry leaving not a whole lot of other options e.g., China produces just about everything in terms of consumer goods. Workers can easily switch industries if they wish (and are able) to do so.

FAST FASHION & SUSTAINABILITY

The real question essentially, might boil down to the fast v. slow fashion debate. How far is it possible to make it sustainable and will H&M ever be able to achieve all round sustainability i.e., from the aspects of not only people and products but also the planet. Can H&M accomplish its ESG goals whilst still maintaining its market position as one of the leading retailers of trendy styles that may allegedly be over-produced and over-consumed?

H&M has no apparent plans to rebrand by morphing into a slow fashion retailer. Instead, it advocates the case for fast fashion because it provides a boost to the economy. Less consumption implies less jobs and henceforth less taxes collected for public goods, schools, doctors, and roads. Its sustainability strategy towards the environment incorporates the use of organic cotton, recycling of garments (of any brand) and providing customers with proper instructions on how to care for their clothes with reduced environmental impact. A leaner and more efficient supply chain is also one of H&M's targets. H&M has very recently been known to use AI technology i.e., RFID Tech involving smart mirrors in fitting rooms, that identify a product's size and color and provide customers with styling recommendations. The smart mirrors use RFID technology to gather information about what items a customer has brought into the fitting room, but they only collect product data. These measures can help to reduce inventory and over production (and in turn waste of inventory).

RECOMMENDATIONS

Given all the above information, it is not advisable for H&M to pull out of Bangladesh. Clearly, catering to rapidly changing fashion trends to the mass market is their forte - and bulk production with speedy in store turnaround is an inevitable outcome. With growing demand for fast fashion, the attitude of consumers (with whom some share of the responsibility lies too), the need to internationally outsource manufacturing will persist. While this may not be best for the environment, consumer mindset (and disposable income hence purchasing power) cannot be changed in a matter of a few years.

Keeping all of these factors into consideration, possible strategies for H&M to deal with the issue at hand (and for future) may include:

Face the media and instead of merely being at the receiving end of negative spotlight and backlash, announce a new agenda to deal with Bangladesh's infrastructural and safety code compliance, through increased engagement with their government, international watchdogs, and trade associations in order to be able to exert maximum possible pressure on the deviant manufacturers who might also be the owners of such hazardous buildings such as the Rana Plaza. Although this will be like throwing itself into the fire, H&M cannot avoid the bad publicity and ensuing repercussions (impact on sales?) that this incident would garner so it is advisable to take the moral high ground and be held accountable – albeit for indirect involvement.

Take measures to improve monitoring and vigilance of suppliers so that there is transparency in the supply chain and all facts are known to H&M e.g., worker's wage rate, working conditions, state of the premises etc. Even if a team is to be periodically sent to Bangladesh to ensure transparency, it will be worth the cost. A constraint that H&M's team could potentially face may be that practices of law evasion are sometimes so rampant and deep rooted in developing countries, they are able to dodge the authorities especially given the culture of bribery, as mentioned in the case study.

Include disclosure of all information, including who the suppliers are subcontracting to, as a mandatory clause in the contract signed by H&M and the Bangladeshi suppliers.

Strict audit of the subcontracted factories should be made compulsory to ensure appropriate wage rates, safe and sanitary working conditions, compliance to safety codes in particular for buildings, provision of fire trainings, reasonable working hours and fair compensation for working over-time (by their will). Legal action can therefore be taken by retailers for non-compliance proved in the audit. Unfortunately, this might be a case of 'easier said than done' as suppliers and subcontracted factories are unlikely to sign any such legal contract that is binding upon them, subjecting them to audit, without any policy regulation from the government's side. Also, even if such legislation is introduced, wherein Bangladeshi suppliers are contractually bound to audits when manufacturing for international retailers, implementation is a huge challenge. Additionally, governmental engagement might turn out to be largely futile for H&M since developing countries not only face law enforcement and accountability issues, the government

(and politicians) themselves are reliant on support from the industrial sector to not only stabilize their tenure but also to assist them in the electoral process. Worker safety is sometimes, sadly, not a priority.

1. Set up an R&D department especially for improving the situation in subcontracted manufacturing factories – educate them about safety hazards and the long-term detriments of not taking timely precautions as well as ignoring poor general working conditions – not only monitor them.
2. Increase consumer prices to include a premium for maintaining a sustainable wage rate system. As simple as it sounds, it may also be impractical as the workers in subcontracted factories are producing for other brands too, so why should the burden in its entirety go to H&M customers alone. Other brands the factory produces for may not be on board, possibly since their customer base would not accept a price hike. Collaborations with other retailers regarding this aspect might therefore be limited.
3. H&M should have total information on the production and storage capacity of whoever is manufacturing the garments for it and anyone found guilty of over-booking should be permanently blacklisted for future orders (even if the local laws exempt them). This will be a strong deterrent and independent of any governmental help.
4. The concluding recommendation is that H&M should consider sequential vertical integration and offshore manufacturing as opposed to outsourcing and hence subcontracting. This will be costly in the short term but will be a better option to benefit from low (not unfair) labor costs, costs of production including transportation, and taxation, in the long run. H&M can work towards its sustainability and ESG goals with a greater degree of flexibility, achieving a leaner supply chain, keep inventory levels in check, invest in innovative projects that focus on giving back to the community, and truly emerge as an industry leader for sustainability.

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