WEEK 5
CASE STUDY

Where does sustainability lie in the supply chain?

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CONSULTSCHOOL

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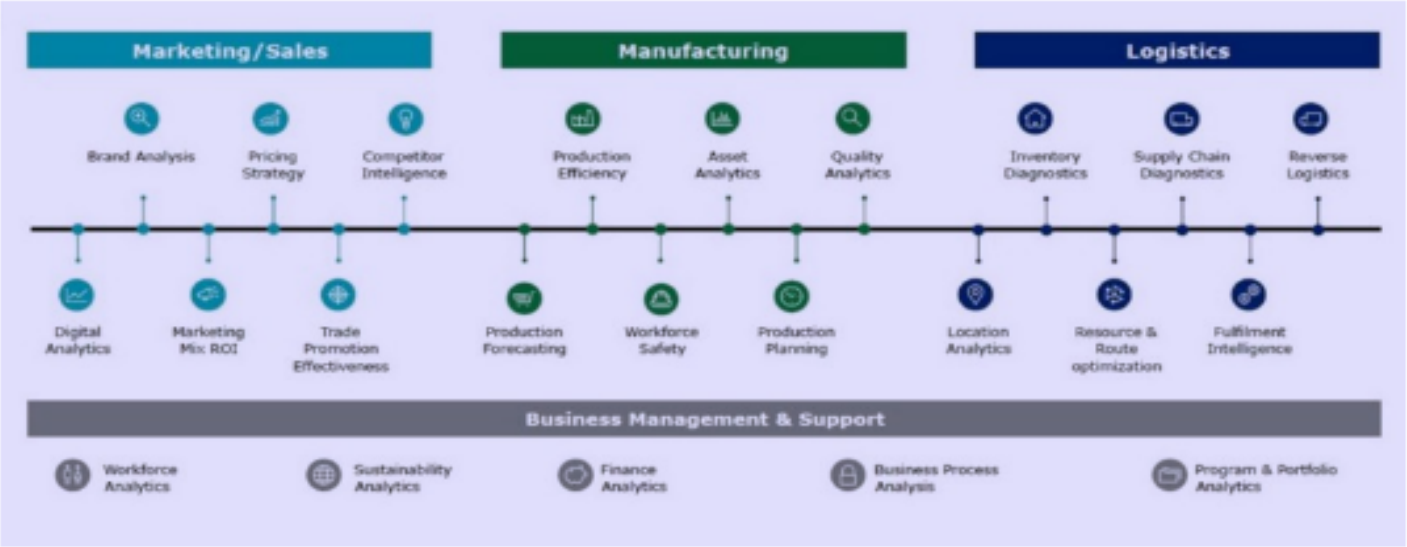
Status-quo:

YOLO, a major FMCG chain in the country, has been receiving a lot of backlash in the recent past, owing to a major revelation by an employee. The, now former, employee suggested that numbers were being manipulated in order to bolster sales. Emissions & footprints were much larger than portrayed. The company's tagline 'Sustainable operations for a resilient future' has been the epicentre of all their marketing campaigns. These developments have led to a change in the company's top management. The new COO has hired your consulting firm to help reinstate their position in the market & transform the entire system into an ESGfriendly one.

Background & context:

- **Number of factories across India:** 50 (plentiful in the central-eastern belt)
- **Number of warehouses:** 1000 (distributed across the country)
- **Number of commuting trucks:** 10000 (in collaboration with a third party provider)
- **Equivalent carbon emissions per factory:** 0.9kg/kWh
- **Emissions per truck:** Standard.
- **Number of employees per factory:** 50 (It has been found that each employee, on average, is working at 60% capacity)
- **Total number of employees:** 7500

The packaging is not recycled, rather disposed in large garbage piles next to the factories. There is no process to recycle purchased packaging either. The raw materials used to manufacture products are of top quality, but aren't sourced in-house. The equipment undergoes regular mechanical checks, but hasn't been updated in quite a while & runs on diesel. The electricity usage by the factories is minimal, below limits. The company has flagship stores across the country, an extension of a brand-promotion strategy. Each of these stores has at least 10 employees, with manual inventories & billing. In addition, the company has also partnered with various supermarkets to further promote its products.



- **Number of stores across the country:** 100 (Centred in Tier-1 and Tier-2 cities)
- **Electricity usage per store:** 15kWh per square foot
- **Equivalent carbon emissions per store:** 25 cubic feet
- **Online presence:** Brand's official website doesn't sell products, however, e-commerce sales on distributors' websites are robust.

Your problem statement:

As the company's ESG goals are poorly defined, restructure the goals by vetting competitors in the field & current trends in the FMCG sector. The goals must be achievable over a 3-year time frame & scalable for future purposes. Analyse every component of the supply chain as per the mind map displayed above. Enlist the various processes in each component that could use refining to better adhere to the company's new ESG goals. What are your recommendations to ensure the company is able to stick its values long past your consulting engagement with them?

Helpful hints:

- Perform a thorough review of all available, pertinent resources to enhance your knowledge of the landscape. This is a continuous process, not one that ends post rudimentary understanding of the problem statement. For more tips on efficient resource extraction, handling & interpretation, look out for our insider tips on the same.

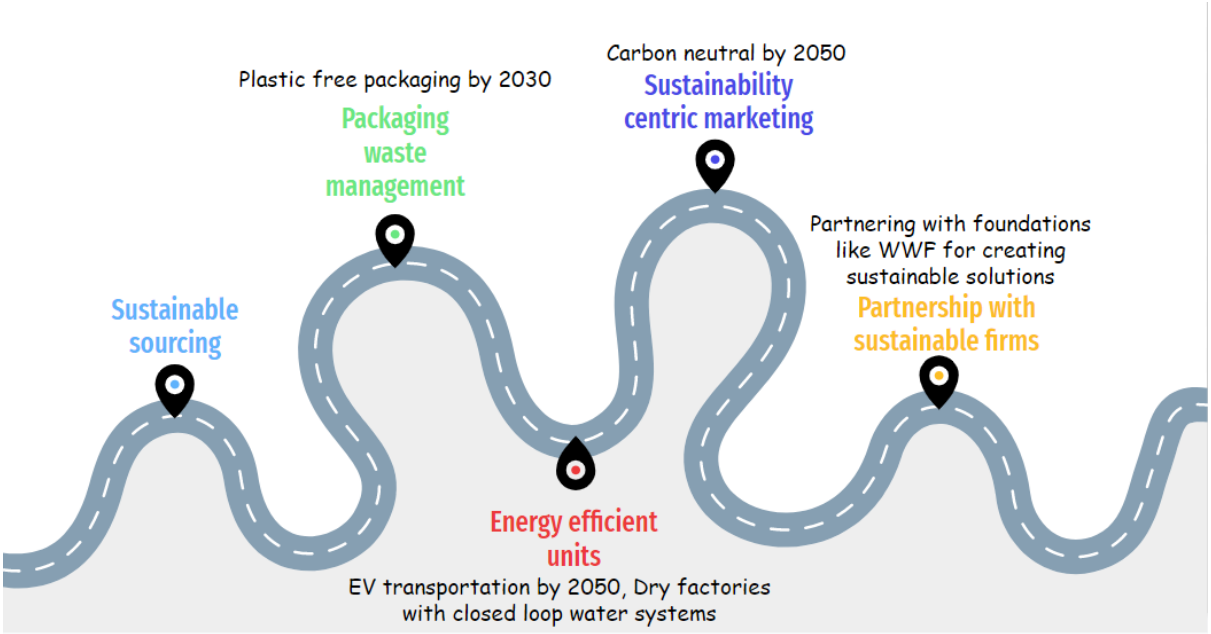
Case Study Week 5

CS245

Unsustainable Practices of the Company:

- The packaging is not recycled, instead disposed of in large garbage piles next to the factories.
- There is no process to recycle purchased packaging either.
- The raw materials used to manufacture products are of top quality but aren't sourced in-house.
- The equipment undergoes regular mechanical checks but hasn't been updated in quite a while
- The equipment runs on diesel.

Goals for a Sustainable future



1. **Sustainable Sourcing:**
    - Products must be made with sustainable ingredients and sources. (For Example: Nestle, a competing FMCG company scientists recently discovered unique low carbon and drought resistant coffee varieties through classical non-GMO breeding)
    - Our FMCG, depending on the products produced by the same, can aim at adopting environment-friendly agricultural practices(for food products), small

scale industry supporting textile (for clothing products), organically grown herbs and plants(for odourents, shampoos, soaps, cosmetics etc) and so on.
- Another way to source sustainably is to buy ethically-sourced local organic produce and seasonal fare.

2. **Packaging waste management**
    - Products must be made as free from non-biodegradable plastic as possible. Alternative packaging must be used in most cases. The cost will be higher in the initial stages but the recent trend shows that customers are willing to pay a higher price for sustainably packaged products.
    - Waste created in the industry must be minimized. Toxic chemicals must be treated before release. The plastic used must be recycled within the company. Efficient machinery must be used.
    - Recent trends supporting sustainability and against animal cruelty have given impetus for the rise of plant-based alternatives, which must be preferred by the company. The meat and poultry industry is heavily criticized for its massive carbon footprint.

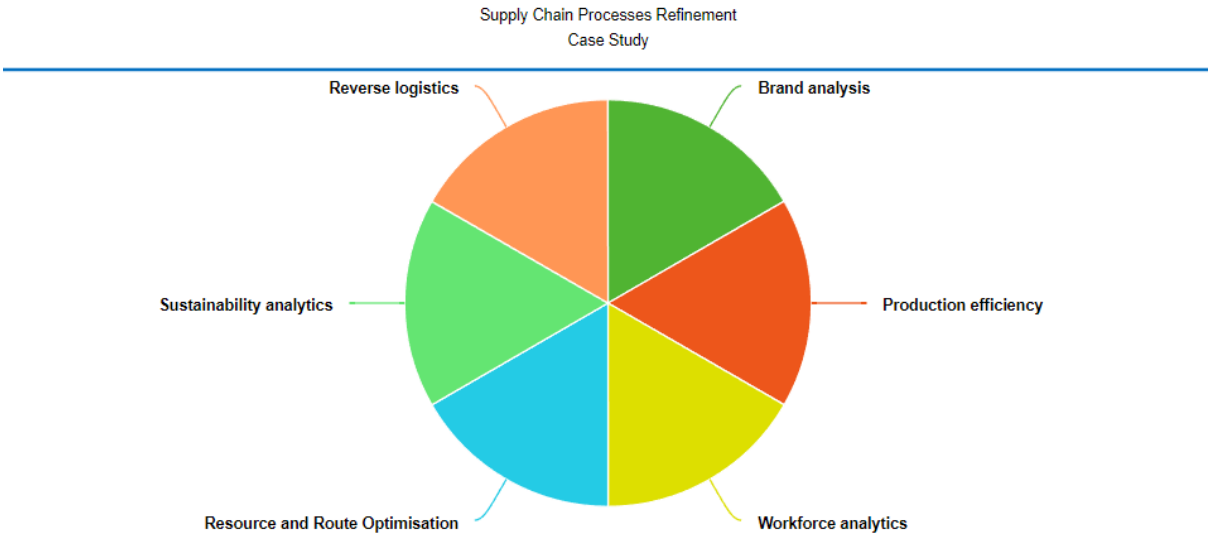
3. **Using energy efficiently:**
    - Industries must be set up near the source. In this way, transport costs and environmental effects by the same will be minimized.
    - Renewable energy sources such as solar or wind energy must be utilized in locations feasible for implementation.
    - The flagship stores must be maintained but the greater emphasis should be on their online presence and digital marketing.

4. **Sustainability-centric marketing:**
    - Marketing must be based on the newly formulated sustainability goals and the carbon emission numbers and initiatives of the company must be actively advertised.

5. **Partnership with sustainable firms:**
    - We can partner with retail stores that support and markets sustainable goods that attract a larger consumer base
    - We can also partner with waste management firms which can help in the proper disposal and recycling of the company’s goods, and the industry and consumer level.

6. **Quality checks**
    - Mandatory quality checks must be conducted for the efficiency of the machinery used. Along with that, sustainable practices and waste disposal systems must be overviewed periodically.

Supply Chain Processes Refinement



- **Brand analysis**
    - The flagship stores should be maintained as they help establish more brand equity and brand attachment. Both brand attachment and brand equity enable the stimulation of intended future brand purchases at retail stores. The current emissions of each store are 25 cu.ft of CO_2 which is less than 1.5 kg of CO_2 per store, which accounts for less than 15kg of CO_2 for all the stores. The online presence on the other hand has to be improved gradually for future sustainability and versatility as the FMCG sector is moving rapidly towards e-commerce from retail. These stores must incorporate sustainability-centric marketing based on the new innovations adopted by the company.

- **Production efficiency**
    - The use of diesel to run the machines is a significant contributor to the emissions of the company and it should take leverage of the electricity quota allowed for a factory. Machines have to be made more energy efficient and regular quality checks must be conducted. Using alternative sources of energy like wind or solar energy will boost the progress towards sustainable goals.

- **Workforce analytics**
    - Improve the efficiency of the employees using various strategies and effective HR management initiatives. Just improving employee efficiency to 80% causes 33% more goods production and will help churn out better profits, compensating for the cost incurred in using sustainable alternatives, while simultaneously reestablishing position in the market.
    - An HR team should be actively working with performance management strategies to fuel the optimal performance of employees and hence improve and maintain the efficiency of the factories.

- **Resource and Route Optimisation**
    - Raw materials procurement has to be converted in-house gradually to make sure there is minimal dependency and maximum flexibility in production. This will also improve employee efficiency, guarantee fast delivery times and make the production process more customer and demand centric. The establishment of raw material procurement units must be done keeping in mind location analytics and consequent emission costs.
    - More eco-friendly travel alternatives should be considered if available through a third-party provider

- **Sustainability analytics**
    - Sustainability software solutions must be used to constantly keep track of the emissions and these figures must be made transparently available across the levels of management to prevent fudging of numbers.

- **Reverse logistics**
    - Improve on reverse logistics to improve emission numbers and also to recover value from the used products. Currently, there is almost no reverse logistics chain/mechanism in place for the company. There are increasingly stricter norms when it comes to emissions and waste disposal and recycling goods is the way forward in meeting these standards.
    - Packaging management techniques that focus on the reuse of packing materials to reduce waste and disposal must be adopted. Additionally, after the end-of-life of a product, recycling of the materials used must be carried out. Wherever economically and logistically feasible, biodegradable alternatives must be used for packaging goods/products.
    - The company should partner with collection and recycling firms to meet these waste disposal norms and to additionally improve brand value by employing recyclers. A circular supply chain model as illustrated must be aimed for and recycling must be incorporated into the supply chain of the company.

- Companies use reverse logistics to build customer loyalty and repeat business and to minimize losses related to returns. Companies are employing smart recycling to recover valuable materials which slash their cost of managing the returned products and remaining compliant with the set rules and laws.

Recommendations to ensure the company is able to stick to its values:

- Long-term partnership with sustainable players(suppliers, transporters, retail, waste pickers etc)
- Ensuring honest projection of their carbon footprints and accounts of their sustainable practices, through transparent figures and the use of up-to-date software and tools
- Setting up renewable energy sources of power for the factories and reducing emissions from electricity production.
- Upgrading machinery and productions techniques with more eco-friendly alternatives
- Checking and improving the efficiency of the supply chains and the reverse logistics to ensure efficient production and recycling. This should be achieved by the use of business analytics software and repeated optimisation with changes in demand and consumer statistics.

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