**LS1109: Managing Business Functions**

**Unit 3: Operations Management**

**Assignment - Renault Case Study**

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**Renault Case Study**

**Question 1:** Discuss the six major strategic decisions for Renault while they are manufacturing Duster in India.

**Answer:** 6 Major Strategic Decisions for Renault while Manufacturing Duster in India:

**1. Design of Goods and Services**:

Renault had to work on changing the automotive design as the European Duster did not suit Indian consumer preferences. Indian people wanted SUVs with rugged looks that stood out in a crowd, but at the same time wanted it to operationally perform like a sedan i.e., easy to drive and offer good fuel efficiency. Other things included were a strong dose of chrome on their cars, dual-tone interior, inclined seats, body-coloured bumpers, Rear air conditioning, an armrest, a mobile charger, and a reading light.

2. **Managing Quality**:

Renauld uses the 3F strategy in which the 3rd F stand for Fantastic. This was aimed at ensuring that there was no compromise in quality. The involvement of different teams, such as the product development team, Renault's design studio in Mumbai, and a team of engineers, was integral to maintaining quality standards while adapting to the Indian market. The tuning of the engine was also done in Paris to meet the fuel quality in India and deliver high efficiency.

**3. Human Resources and Job Design**:

Renault invested resources in recruiting personnel with skills suitable for conducting research and the decision to have members of the product development team live with target customers was a strategic approach to job design. It ensured that the team members were directly involved in understanding customer needs and preferences, which is integral to the total system design.

**4. Process and Capacity Design:**

Renault had to decide how the Duster would be produced and determine the capacity needed to meet demand. This decision committed management to specific technologies, quality standards, resource allocation, and investment in manufacturing facilities. Process design influences the efficiency and effectiveness of production operations. Renault's decision to modify the European Duster prototype to better suit the preferences and requirements of Indian customers reflects their process design considerations. This process involved conducting extensive market research, customer clinics etc. Furthermore, Renault's commitment to meeting the demand for the Duster in India required careful capacity planning and investment in manufacturing facilities. This included expanding production capacity, enhancing manufacturing processes, and allocating resources to ensure timely production and delivery of the Duster to meet market demand.

**5.** **Layout Strategy:**

Renault carefully planned the layout of their assembly lines to optimize the flow of materials, components, and workers, allowing for a smooth and efficient production process. For example, at each workstation along the assembly line, workers would perform specific tasks such as installing components, conducting quality checks, or performing assembly operations. A layout that facilitated easy access to tools, equipment, and resources needed for production. They strategically placed storage areas for components and parts near the assembly line, for convenience.

**6. Location Strategy:**

Renault strategically chose the location of their manufacturing facility in Oradagam, Chennai. Chennai is a major industrial hub in India, with well-developed infrastructure and access to skilled labour. Chennai also provided them with easy transportation facilities another reason could be Chennai's favourable business environment and supportive government policies.

**Question 2:** Discuss the competitive strategy(-ies) that Renault is following to make Duster more competitive in the Indian market.

**Answer:** Renault's competitive strategy for the Duster in the Indian market can be analysed from multiple perspectives:

1. **Product Differentiation Strategy**

Renault followed a differentiation strategy with the Duster by offering a unique product tailored to Indian customer needs and preferences. This involved extensive market research, ethnographic studies, and modifications to the European model based on insights like the desire for chrome accents, dual-tone interiors, rear AC vents, armrests etc. (Modi, 2016). Key differentiating factors included customizations like higher ground clearance, reinforced suspension for Indian roads, and engine tuned for Indian fuel quality (Modi, 2016).

1. **First Mover/Market Segmentation Strategy**

The case study mentions that "Renault identified a gap in the SUV segment" between premium and entry SUVs (Modi, 2016). By launching the Duster in the compact SUV segment in 2012, Renault followed a first-mover strategy in this emerging segment in India (Case Overview, web search 1). This allowed it to create and capture the nascent compact SUV market before competitors.

1. **Cost Leadership Strategy**

Renault employed a cost leadership strategy by pricing the Duster competitively between Rs. 8-12 lakhs, undercutting premium SUVs (Modi, 2016). Frugal local engineering with the 3F strategy - "Fast, Frugal and Fantastic" enabled cost efficiencies (Modi, 2016).

Focused Market Targeting & Positioning Renault focused its targeting strategy for the Duster on the burgeoning Indian middle class with specifications tailored for their extended family/driver needs (web search 2). Its positioning straddled premium design/features but at an affordable price point appealing to value-conscious buyers (web search 3).

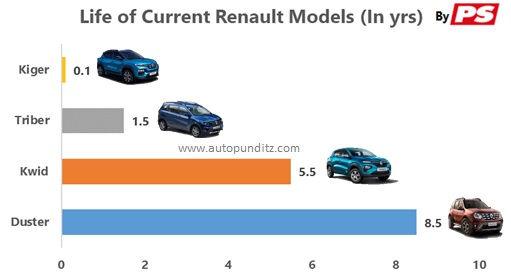
1. **Marketing and Branding**

Renault leveraged innovative marketing and branding strategies to create buzz and interest in the Duster like buzz marketing, social media engagement, and experiential showroom tactics (Modi, 2016; web search 3). This helped establish the Duster as a desirable choice among Indian consumers.

Additionally, Renault adopted a long-term growth strategy focused on localizing design, production and decision-making for the Indian market rather than relying on an import model (Sarma & Baviskar, 2018). Local R&D, cross-functional teamwork and empowered leadership enabled fast, frugal product adaptations.

This multi-pronged strategy involving market segmentation, product differentiation aligned with Indian needs, first-mover advantage, cost leadership, focused targeting/positioning and effective marketing enabled Renault to make the Duster highly competitive initially (Modi, 2016).

*Product Lifecycle Analysis – Renault India*



Source: <https://www.autopunditz.com/post/product-lifecycle-analysis-renault-india>

**Question 3:** Discuss the supply chain of Renault Duster (from India’s perspective) using an illustration. Identify the push/ pull boundary in the same illustration.

**Answer:** The supply chain of Renault Duster from India's perspective involves various stages, starting from the procurement of raw materials to the delivery of the finished product to the end customer:

1. **Raw Material Suppliers:**

This stage involves sourcing raw materials such as metals, plastics, electronics, and other components required for manufacturing the Renault Duster.

Renault likely works with multiple suppliers, both local and international, to procure the necessary materials.

For example, Renault's Oragadam plant near Chennai may source steel from local steel mills in India and electronic components from suppliers both within and outside India.

1. **Manufacturing:**

Once the raw materials are procured, the manufacturing process begins at Renault's Oragadam plant.

The assembly line at the plant involves various processes such as stamping, welding, painting, and assembly of components to build the Renault Duster.

Renault's manufacturing process is tailored to meet the specific requirements of the Indian market, as highlighted in the case study. For instance, modifications are made to the Duster to suit Indian road conditions and customer preferences.

1. **Distribution and Logistics:**

After the Renault Duster is manufactured, it undergoes quality checks and testing before being prepared for distribution.

The distribution network includes the transportation of vehicles from the manufacturing plant to regional warehouses and dealerships across India.

Renault may utilize various modes of transportation, including trucks and railways, to distribute the Duster efficiently.

For example, Renault India's Duster distribution network ensures timely delivery of vehicles to dealerships across different regions in India to meet customer demand.

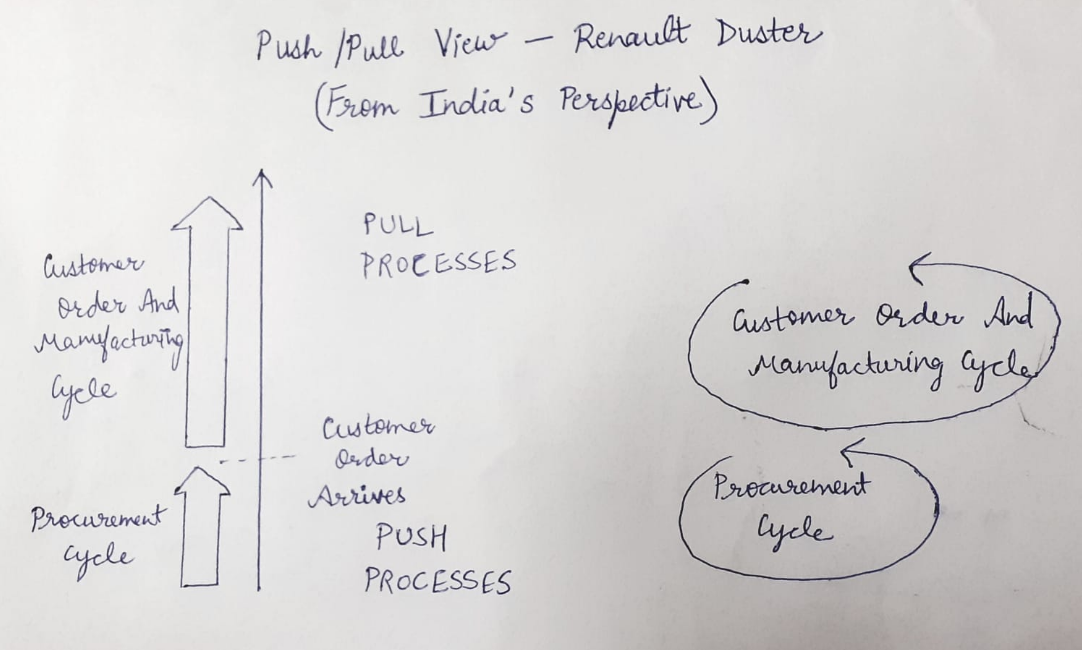
1. **Customer Order Fulfilment:**

This stage involves responding to customer orders placed through dealerships or online channels.

Renault maintains an inventory of Duster variants at dealerships to fulfil immediate customer orders.

Additionally, Renault may offer customization options for customers, such as choosing different colours or features, which are then fulfilled through the manufacturing process.

The pull process is evident at this stage, as customer demand triggers the production and delivery of specific Duster variants.



**Fig: Illustration of Push/Pull Processes for Renault Duster Supply Chain (from India’s perspective)**

The push/pull boundary in the Renault Duster supply chain occurs between the procurement cycle and the subsequent manufacturing cycle, which is then linked to customer order fulfilment.

The procurement cycle, involving the sourcing of raw materials and components, operates in a push fashion, driven by forecasts, and production schedules. Renault forecasts the demand for materials based on anticipated production requirements.

On the other hand, the manufacturing cycle and customer order fulfilment operate in a pull fashion. While manufacturing processes are initiated based on forecasts and production plans, the actual production and assembly of the Renault Duster are influenced by customer orders.

For example, while Renault's manufacturing process is designed to meet anticipated demand, actual production volumes and specific configurations of the Duster are determined by customer orders. This ensures that the manufacturing process is responsive to real-time customer demand, minimizing inventory holding costs and enabling quick adaptation to market fluctuations, as highlighted in the case study.

In conclusion, Renault Duster's supply chain in India exhibits a well-coordinated flow from raw material procurement to customer order fulfilment. While the procurement cycle operates in a push fashion, driven by forecasts and production schedules, the manufacturing cycle and customer order fulfilment operate in a pull fashion, responding dynamically to real-time customer demand. This agile approach enables Renault to efficiently meet customer requirements while minimizing inventory costs and adapting swiftly to market changes.

**Question 4:** Discuss the five most critical aspects of quality that an automobile manufacturer like Renault (while manufacturing Duster) must consider while manufacturing in India.

**Answer:** When manufacturing automobiles like the Renault Duster in India, several critical aspects of quality need to be carefully considered to ensure the product meets the standards expected by consumers and regulatory authorities. Here are five key aspects:

**1. Material Selection and Sourcing:** Choosing high-quality materials for various components of the vehicle is crucial. This includes selecting durable metals for the chassis and body panels, reliable plastics for interior components, and robust materials for critical systems like the engine and suspension. Additionally, ensuring a stable and reliable supply chain for these materials is essential to maintain consistency in quality and production.

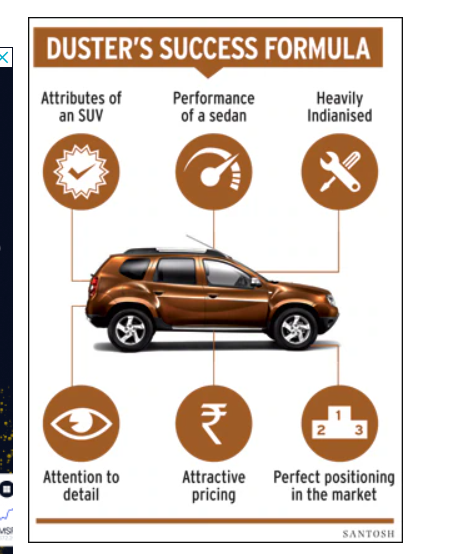
**2. Manufacturing Processes and Quality Control:** Implementing stringent manufacturing processes and quality control measures is vital to ensure that each Duster produced meets predefined standards. This involves employing advanced manufacturing techniques, such as robotic welding and precision machining, to achieve consistency and accuracy in assembly. Regular inspections and testing throughout the production process help identify and rectify any defects or deviations from quality standards promptly.

**3. Product Testing and Validation:** Conducting comprehensive testing and validation procedures is critical to verify the performance, reliability, and safety of the Duster. This includes rigorous testing under various environmental conditions, such as extreme temperatures and road conditions, to assess durability and resilience. Additionally, conducting crash tests and other safety evaluations ensures compliance with regulatory standards and enhances consumer confidence in the product's safety features.

**4. Supplier Quality Management:** Ensuring the quality of components sourced from suppliers is essential to maintain overall product quality. Establishing robust supplier quality management systems involves conducting audits, assessments, and performance evaluations to monitor and improve the quality of parts supplied. Collaborating closely with suppliers to address any quality issues promptly and implement corrective actions helps maintain consistency and reliability in the manufacturing process.

**5. Continuous Improvement and Feedback Loop:** Emphasizing a culture of continuous improvement is crucial for enhancing quality standards over time. This involves soliciting feedback from customers, dealers, and internal stakeholders to identify areas for improvement and innovation. Implementing feedback mechanisms and incorporating customer insights into product development and manufacturing processes enables Renault to address evolving customer needs and preferences effectively.

By prioritizing these critical aspects of quality, Renault can ensure that the Duster manufactured in India meets the highest standards of performance, reliability, and safety, thereby enhancing customer satisfaction and brand reputation in the competitive automotive market.



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