

# Problem Definition Steps

**Problem Area:** Product Development

**Conduct Preliminary Research:**

**Trends in Fashion Product Development:**

**Sustainability:** There's a growing trend towards sustainable and eco-friendly fashion products. Consumers are increasingly concerned about the environmental impact of their clothing, leading to a demand for sustainable materials, ethical production practices, and circular fashion initiatives.

**Personalization:** Customization and personalization are becoming more prevalent in fashion product development. Brands are leveraging technology to offer personalized shopping experiences, allowing consumers to customize products based on their preferences and style.

**Digitalization:** The fashion industry is embracing digital technologies in product development processes. Virtual prototyping, 3D design software, and digital sampling are becoming more common, allowing brands to streamline the product development cycle and reduce time to market.

**Collaborations:** Collaborations between fashion brands and influencers, celebrities, or other brands are on the rise. These collaborations help drive brand awareness, create buzz around new product launches, and tap into new customer segments.

**Challenges in Fashion Product Development:**

**Rapidly Changing Trends:** One of the biggest challenges for fashion brands is keeping up with rapidly changing consumer preferences and trends. Traditional product development cycles may struggle to adapt quickly enough to capitalize on emerging trends.

**Data Complexity:** Fashion brands are inundated with vast amounts of data from various sources, including social media, sales channels, and customer feedback. Analyzing and interpreting this data to make informed product development decisions can be challenging.

**Sustainable Practices:** While there's a growing demand for sustainable fashion, implementing sustainable practices in product development can be challenging. Sourcing sustainable materials, ensuring ethical production processes, and maintaining profitability pose significant challenges for brands.

**Opportunities in Fashion Product Development:**

**Data-driven Insights:** Leveraging data analytics and machine learning algorithms presents opportunities for fashion brands to gain valuable insights into consumer preferences and

market trends. By analysing data from various sources, brands can identify emerging trends early and make data-driven decisions in product development.

**Technology Integration:** Integrating digital technologies such as virtual prototyping, 3D design software, and AI-driven trend forecasting tools can streamline product development processes and enhance creativity and innovation.

**Sustainability Innovation:** There are opportunities for fashion brands to innovate and differentiate themselves by adopting sustainable practices in product development. Brands that prioritise sustainability can appeal to environmentally conscious consumers and gain a competitive edge in the market.

**Define a Specific Problem:** Rapidly Changing Trends: One of the biggest challenges for fashion brands is keeping up with rapidly changing consumer preferences and trends. Traditional product development cycles may struggle to adapt quickly enough to capitalize on emerging trends

**Propose a Solution with Methodology:**

- a. **Data Collection:** We will need data about what kind of clothes the person in the picture is wearing, the date of the picture and the amount of times those items were searched up.
- b. **Analytical Techniques:** Analyze the pictures of the chosen models, get the date of the picture and keep track of the interest rise of those items (using google trends) for 24 hours and based on that info predicts if it'll be a trend or not.
- c. **Implementation Plan:** The insights gained from following the rise of interest in 24 hours and comparing the interest before the certain date will help to understand if there's a significant rise in the interest.

**Expected Outcomes:** Give fast fashion brands, designers and small clothing businesses the opportunity to gain more market share by understanding the rising trends.

**Evaluation Metrics:** Sales of the fast fashion brands after implementing the technique of making the new collection based on predictions. Number of sales(amount, quantity) increased compared to the previous season.

