

Task 1: PROBLEM REPORT

Project Title: Augmented Reality in beauty shopping

Research Theme: Smart technologies and advanced manufacturing

Problem Description: An increasing number of brands are focusing on selling their products online. Although the growth of online shopping retails is high and trending nowadays, customers still prefer face-to-face shopping to have the exact look and feel of the products. This cannot be possible in a pandemic situation and time-saving cannot be made in face-to-face shopping. According to reports, it is found to be 78.65% of shoppers cancel their carts before completing a purchase. This shows that customers don't have the hope quality of the product they purchase and retailers need to do a lot more to make customers go ahead with the items in their carts and make the payment.

Importance: AR in online shopping retails lets people have a view of their outlook with purchasing products before they purchase. Also, this makes the customers experience trying their ornaments without even wearing them physically. And this lets customers know the products better before making a purchase. This makes the customers pick their right product for the first time. AR brings real care to customers. This increases the loyalty and hope of the customers and will make the customers buy products. Hence, the relationships between customers and retailers will be good. Retailers need not spend money on sellers and consultants as they implement their selling in websites with AR integration. AR integration in online shopping retails will maximize the sales of the brands.

How is the problem currently being solved?: Some many brands and companies implement this AR integration in online shopping retails.

One of these is **We MakeUp**, the cosmetic brand from Italy, created an AR filter on Facebook which allows customers to 'try-on' different shades of its lipstick and makes the customers pick the right shade which suits them perfectly. But this brand uses Instagram to experience this AR effect. So, this will not be suitable for customers who don't have accounts on Instagram as they cannot experience this AR effect.

Amazon collaborated with **L'Oreal** and created an augmented reality app for beauty shoppers. This AR app can function only when the customers upload their photos or videos. Then they can select a wide range of lipstick shades to try-on and lets customers select their products right at the first time. On comparing

uploading photos in the portal and live AR effect, experiencing and viewing AR filter on live will be more effective.

You face makeup is one of the most downloaded application in the market by beauty shoppers. This app contains all types of beauty trials and it has all basic makeovers with eye masks, eye tattoos, and has many types of hairdressing. This app functions only by uploading the customer's photo and then it scans the uploaded photo and finally augmented reality integrated with this application brings out the expected output with applied designs for the uploaded photo faces of the customers. This application contains too many ads and to get rid of showing ads, we have to move for the more expensive pro version, and also application takes time for changing from one AR effect to another.