



Comparative Analysis Of Real Product Vs 3d Designed Image In Online Shopping Mobile Applications

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Abstract:

Mobile online shopping applications are an essential use for many people who want to buy products from their location. The technology developed paves the way for these mobile online shopping applications, making it easier and faster to do business. Product promotion plays an important role in online mobile applications. Presenting products in digital format is very important for online sellers. The idea of an online seller is to attract online buyers and get them to buy a product. Online shoppers are fascinated by the image of the product displayed in the mobile application. Many online mobile applications do not publish the actual image of the product, but promote 3D rendered images that resemble the actual product. Many online shoppers look at these images to buy an item and understand when they will actually receive it. These 3D images create the best possible reality for a real product. In this study, we analyse actual product images and 3D design images, analyse how customers realize these images after purchasing the product, and compare them with the 3D design images displayed in mobile shopping applications. This research is done using a qualitative method and content analysis tools are used for data analysis. The data is analysed by the top 4 trending mobile shopping apps, and the products are analysed by each mobile app along with the ratings of the customers who purchased the product. The data will analysed from top four trending shopping mobile applications and one product will be analysed from each mobile application with the review of costumers who has purchased the product. The comparison of real product image and 3D designed image shown in the shopping mobile application will be analysed and differences will be shown through images.

Keyword: Images, Online shopping, Mobile applications, 3D Images,

Introduction:

In the digital era, mobile applications are the established technology through which all forms of electronic communication are carried out. The development of mobile applications in a variety of fields has made it easier and faster for users to do their tasks. Through the internet, mobile applications are available for a wide range of services. Smartphone users prefer to utilise mobile applications over web browsers to access websites. The apps are built in such a way that they may link with e-commerce enterprises all over the world. Smartphone users who have downloaded the E commerce mobile applications can shop from anywhere. This feature has enabled every smartphone user to choose from a variety of shopping apps. The applications provide product information, including photographs and descriptions. Smartphone users who want to buy something can go to the app, check the product's details, and then buy it. The applications are in charge of informing buyers about the product and how to use it. The majority of smartphone users compare products using multiple apps to discover the best product for their needs. Mobile applications provide photos of products to help customers visualise what the product will look like. Some merchants utilise real product photographs, while others use 3D design images to illustrate the goods. Customers who are looking for products must be able to grasp what they are looking for simply looking at the photographs. The real image of the product does not create any confusion, however the 3D designed images will catch the customer's attention, causing them to purchase the product. There are times when 3D design renderings resemble the real thing. The genuine product may differ from the 3D created image on occasion. The customer will only realise this image and product analysis once they have the product in their hands. The 3D design graphics give the product an exceptional appearance, which does not contrasts with the actual product and its finishing.

Review of Literature

According to Ms. Akshata Shripad Tamhankar,(2021) Fake Product Review Monitoring System says that product reviews in the e-commerce website is more helpful to the users to buy the correct product. Some of the costumers are thinking that all the reviews are not fake and real. They realise this situation only when they buy a product and found that it is not the product as shown or its quality is not up to the mark. There are few sellers who give fake reviews to sell their products. In this research the monitoring system proposed was useful to monitor the product reviews of e-commerce websites.

According to Joni Salminen (2021), research on Creating and detecting fake reviews of online products says that the fake reviews of online products available in the website cannot be easily identified by the costumers. The basic identifying technique of the costumer is about the one review which looks different. There may be reviews which speak about the negative aspects of the product but it could be a truthful review. In this research the algorithm proposed by the researcher finds all fake reviews which cannot be identified by the human being.

According to Md Altab Hossin (2019), research on Influence of picture presence in reviews on online seller product rating: Moderation role approach says that the images and videos that are being produce by the sellers for displaying in the e-commerce websites is mainly to attract the viewers and create an intention to purchase the products. The multimedia strategies used by the sellers to showcase the product deals mainly with the online buying behaviour of the costumers in china. The online costumer reviews plays a major role in decision making of product purchase.

According to Naman Taneja (2014) , research on A Study of Product Deficiencies in the E-Commerce Industry says that costumers does not have much interest towards buying the products through online. The survey states 21.78% of respondents have some deficiencies in buying the products through online and on the other hand 63% of them hesitate to purchase through online. The reason for this intention on online shopping is because of the way the company or seller present the product and information regarding the product. The sellers need to do more campaigns and promotion on the products and features of the same.

According to Niels Klinkenberg (2019) research on the Effect of Product-Pictures and Employee-Photographs on After-Purchase Trust: A study on After-Purchase Information of Online Retailers says about the trust of costumers on products while purchasing it through online. The online purchase environment is different when compared with the physical purchase. The retailers who sell their products through online should create a strong trust on their ecommerce site among the costumers to purchase the products.

According to Nebojsa Vasic (2019), research on The Influence of Online Shopping Determinants on Customer Satisfaction in the Serbian Market says that the respondent are satisfied with the online shopping method which they use through websites and mobile applications. The logistic service has not been properly developed in Serbia where the products delivered through online shopping is not good and quality of products are also vary. Sometimes the products delivered does not expect the costumers expected quality. Costumers find dissatisfied with the shipping of the products.

According to Pinky Rathod(2019) research on Real Time Product Analysis has derived a search engine option to find the right products and compare the products of same category with the price. It also helps the costumers to analyse the product of various e-commerce websites and compare the products in that. This is the easy way where the costumers can analyse a product based on its price and specification and also the best deal offered by the e-commerce website. Through this real time analysis technique all the costumers who preferred to buy online are benefitted by selecting the right product

According to Supun Hewawalpita,(2017) research on Effect of 3D Product Presentation on Consumer Preference in E-Commerce, says that the 3D product representation in e-commerce website does not have much focus on users experience and the value of products. The costumers stills says that the 3D product picture look perfect and it also affect the likelihood of costumers towards purchasing a product after seeing it in a 3D form. On the other end the 3D 360° view has made the costumers to see the product and purchase it

According to Soran Abdulkarim Pasha(2017), research on Similar image retrieval in e-commerce for online shopping based on colour and edge, the research propose a model search images of same colour and edge. The ecommerce websites will show images of product and on the other side the website will work with the search result to find out the same product from various sellers. The similarity of products is found with the help of colour and the search value of the product. It uses the image processing techniques to find the images. All these images are found from the database of the website. This will intern the costumers to purchase the product.

According to K. Selvaraju,(2016) research on Impact on E-Commerce towards Online Shopping and Customer Buying Behavior says that during online shopping checking of company profile and brand is very important. The data collected from the respondent says that 54% of them have strongly agreed that the name of company and brand is more important to purchase online whereas 38% of agree and 7% of them are neutral on the online purchase and brand selection. The research states that online shopping is carried by the costumers with outmost concern on the product that they purchase.

Methodology

The research is conducted on content analysis method. The e-commerce mobile applications and the products in the applications are taken for analysis. The product details are analysed based on the reviews of the costumers. Four different applications and products from each application and the review which speak about the products appearance, size and quality is taken for analysis. The analysed data is represented in the form of table. In addition, the difference of the real image and 3D design image has been represented as pictures.

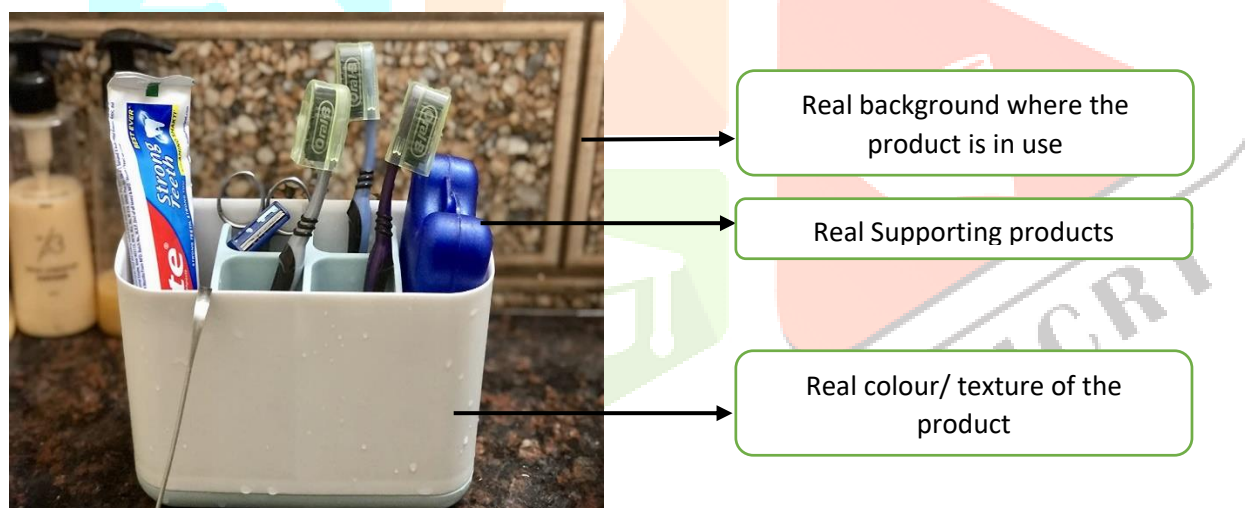
Findings

Analysis of real and 3D Images

SL.NO	Application Name	Product Name	Costumers review
1	Amazon	Ambesonne 69 W By 70 L Fabric Mildew Resistant Zen Garden Theme Magical Jasmine Flower Japanese Design Relaxation Bamboos Candles Shower Curtain-Multicolor	It doesn't look as bright & vibrant as the picture shows it to:(It's really thin & kind of transparent too. I am going to keep it & make it work in my bathroom by adding cute decor & shelving to make it work. If I were to see it in a store 1st hand before I purchased it I honestly wouldn't have purchased it though.
2	Flipkart	AG CRAFTS TM Mirror-103 Decorative Mirror	Size is not as big as given in image or dimensions
3	Meesho	Nisko Bathroom Corner Shelf Super Clear, Corner Shelves for Home Decor - One Set (3 Pieces)	Picture on the website n picture I shared is it the same. Material quality not good. Design is not matching. Fabric is not same as shown.
4	Shopclues	Welcome Door MAT for Home Entrance (Size:16x24 inches)	Received small and different mat

The products selected in various shopping Mobile Application are 3D rendered products. These products vary from the actual products and its sizes.

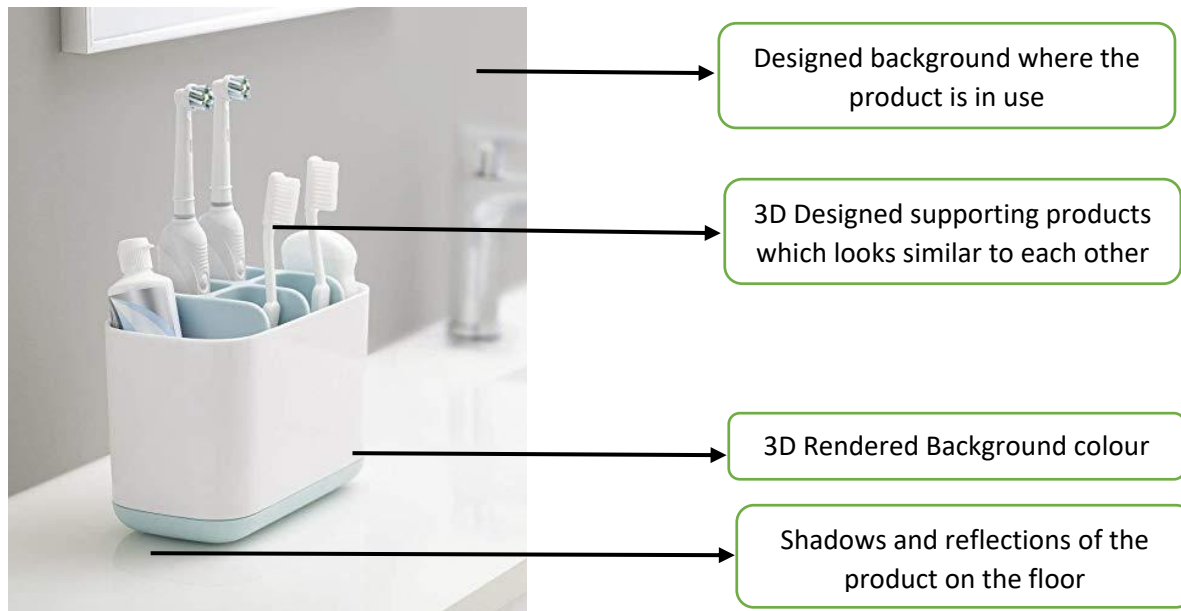
Real Product Image



Picture -1

The real images are always made by taking photograph of the products. Many online sellers does not want to use real images as they are unable to attract the buyers much more as like in 3D rendered images. The real images will give an exact idea about the products and how it will look like whereas it cannot be identify in the 3D images. In some cases the products may vary with the size, shape and colour in real when compared with the 3D images. The real images of the product can be identified with background of the images and the supporting products that is hold by the core product and also with the help of colour and glint effect which is seen on the outer region of the products. In the real image photo the product will never have a clean and plain background mostly. If the light from camera is reflected or bleached that will be an easy sign to identify that it is a real image. In case of professional product photographs the photo will be more clear and it is quite difficult to identify the product weather it is real or 3d rendered in that case the image has to be observed keenly about its finishing and shadows on the ground mostly the photograph images will never have shadows and the finishing will be more regular compare to the glossy 3D rendered images.

3D Rendered Product Image



Picture - 2

3D designed images play a more prominent role in the e-commerce market. They are the one which creates intentions to the buyers for purchasing the products. The 3D rendering technology has made a vast change in the graphic industry which helps to sellers to create more attractive 3D images of their products. The software's like Autodesk 3Ds Max, Maya, Blender and Adobe After Effects are used in this 3D rendered image creation. The 3D image rendering is mainly focus on the products which need more attention among the buyers. The seller who think that a real photo of the product will not attract his audience will go for 3D rendering of images for the product. Identifying the 3D rendered product is simpler with its glossy finish. The 3D rendered image will also have a shadow and reflection which in turn need to be identify by the buyers. Most of the 3D rendered images are more attractive when compared to the real product it is the clearly based on the knowledge of the buyer to identify the product. Some of the buyer who have experience in identifying the product image will never go purchasing that product. It can also be identified through the customer review and the photo uploaded by them. Apart from the 3D rendered product images there are 3D videos of product where the product is shown in 360 degree. This will make the customer to believe more on the originality of the product. Another way of identifying the 3D product image will be through the customer's review photos which will show the product in use environment and how does the product look in the real living places. These analysis are needed to the products like decors, planting, tools, households etc.

Conclusion

The digital media usage has made more demand to the images, photos and videos. E-commerce sellers need to attract their audience through images and sell it. The major use of image in the form of 3D is popular in the shopping mobile application and people get attracted by those images. Most of the sellers use 3D images as they are not satisfied by the real photo of their own product. All the products will have a fine finish when it is designed in 3D when compared with its real photograph. There are some sellers who want to sell their low quality product with the help of these technology in this case the customer will realise the real product after it was delivered to their hand. Some of the customers are really good in finding the product and comparing the product with other E-commerce mobile application. Most of the products which has the difference in the real and 3D image will be mentioned by the customer in the comment section. There are some E-commerce mobile application which says that the image shown may differ from the real product so this will automatically alert the buyer to think on the product and decide whether to buy this or not. The E-commerce sellers must understand that the customers have more options to find out the worth and reality of product through other E-commerce mobile application and some customers find the same through the image which was displayed in the website. More customer awareness is needed for better understanding of 3D images compared with real images. All E-commerce sellers should understand their customers and they should mention the details of product appearance stating that there will be a difference in image shown and real product. People who search for products should also check for the comments and images uploaded by the other customers who have already purchased the product. The images shown in the e-Commerce mobile application is mostly to attract the customers and sell the product fast. Thus real vs 3D images play a major role in the E-commerce mobile applications. The customers should need more awareness about the images and how to identify the correct image of the product. Many customers believe on the 3D images as they have less awareness on the 3D rendered images.

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