Scope of Interactive 3D modelling technology for greater consumer engagement in India, through Experiential Marketing.

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Indian markets are getting more complex and demanding with mass media working less. Currently, India stands 4th among the countries with the highest internet users and as internet penetration increases, it is poised to play an increasingly important role in affecting the purchase decisions and giving consumers enough information to motivate them to go to the store to make the purchase. Before the actual purchase the consumer follows, in most cases, a specific evaluation process to narrow down to his preferred choices, based on his individual context- usually his prior experiences with the same/similar product, which experiential marketing can help create. Interactive 3D modelling uses photos or plans from clients, to create realistic 3D models of products, adding "hotspots" which allows the viewer to zoom, rotate and customise the product model over the internet, to highlight various aspects of the product (example carazoo.com). These hotspots simulate the product in operation to the clients. The paper makes use of empirical methodology and is divided into mainly four sections. In the first section we study the existing areas where interactive 3D modelling is being used (in India) and its effectiveness in the purchase process. The second section seeks to identify the demographic groups which are most responsive to this form of experiential marketing. The next section deals with the cost effectiveness and feasibility of using this technology extensively and the last section aims to discover product types in the Indian market for which similar marketing can be done in the future.*

Key Words:

Interactive 3D modelling, Existing areas of Application, Responsive Demographic groups, Challenges, Future prospects

I. INTRODUCTION

A wave of change is taking place in today's sales and marketing environment. Every interaction is being expected to be more personal, engaging and meaningful. Experiential marketing is being looked as a possible tool to achieve the same and is being adopted by companies of every size and stature, independent of product, industry and service. To enable this marketing metamorphosis, there is a renewed emphasis on technologies that help deliver highly interactive brand experiences. As the internet penetration and usage in India continues to increase, it provides a huge opportunity for marketers. Here interactive 3D technology can be used to provide the consumer an experience in the self defined and controlled sphere in which he lives and thereby influence his purchase decision.

II. Literature Review:

II.1 Definition of Experiential Marketing

The one definition that manages to capture the essence of this highly fluid concept is

“Experiential Marketing connects audiences with the authentic nature of a brand through participation in personally relevant, credible and memorable encounters.

Whereas traditional marketing has focused on mass communication using rational, left-brain directed persuasion, experiential marketing focuses on making a personalized connection using emotional, right-brain directed involvement.”

II.2 Interactive 3D Modelling and its role in Experiential Marketing

Interactive 3D modelling uses photos or plans from clients, to create realistic 3D models of products, adding "hotspots" which allow the viewer to zoom, rotate and customise the product model over the internet.

This allows companies to highlight various aspects of the product (Example: Displaying different features of cars to prospective buyers online by www.carazoo.com).

Interactive 3D modelling allows the user to get a feel of the volume and size of the area being explored as in the case of interactive website of the real estate giant Rahejas.

II.3 Need for interactive 3D modelling:

With more than a billion users over the world and more than 80 million users in India, a large proportion of the world population turns to the internet for information. As people spend more time on the internet, it is one place where strong presence is vital for survival in today's world.

Moreover as there is information overload from not only the internet but other sources- print, television etc, it is becoming more imperative than ever to engage the consumer better and this is exactly what this technology aims to do by simulating the experience of the use of the product/service over the internet, leaving a deeper impression.

The ability to zoom on a specific feature of the product, rotate it to a chosen angle or travel to a specific part of a building, gives the consumer a power to concentrate on his area of interest and this becomes particularly important when this generation, in a race against time is demanding more customisation.

II.4 Aims of experiential marketing through interactive 3D modelling as we envision it:

The buying decision process as we well know consists of the following five stages:

It is in the stages of Information Search and Evaluation of Alternatives that experiential marketing really steps in.

II.4.1 INFORMATION SEARCH

After having recognised a need for the product/ service, the modern day consumer often turns to the internet for information. It is at this point that these interactive sites can attract and hold the attention of the consumer, who may be facing a sea of information. The websites help in

- Creating a high degree of involvement with the product/service.
- Enabling the consumer to experience the look and feel of the product/service.
- Help in saving time for the consumer.

This mode of experiential marketing may help in creating greater awareness and thereby a higher purchase conversion rate. Its effectiveness is mainly to help the consumer make a faster move from the awareness to the consideration and from the consideration to the choice set.

Example: carazoo.com helps the buyer to narrow down to his choice of car and his dealer but may not necessarily encourage the purchaser to seal the deal there and then.

II.4.2 EVALUATION OF ALTERNATIVES

Interactive 3D modelling plays a vital role in making the consumer aware of the attributes of the product/service and its benefits. Some interactive portals also offer the buyer an opportunity to compare across competitors **[**as in **expectancy-value model** of evaluation of alternatives**]** and these comparisons when made in a 3D format simulate the feel of the varied products, have a deeper impression on the mind of the consumer and help the consumer make these comparisons faster and in a more convenient manner.

Example:

Carazoo.com allows the prospective buyer to compare the interiors and exteriors of cars of different makes by a click of a mouse and thereby save the effort and time spent in visiting different dealers.

III. Objectives:

The objectives of this paper are:

1. Identify the existing areas of application and also analyse the benefits that interactive 3D modelling provides to the existing players.
2. Identify the demographics that will be most responsive to experiential marketing aided by this technology.
3. Identify the challenges that limit its application in other areas or in a grander, upgraded scale in existing domains.
4. Identify domains in which it can be applied in the future.

IV. Methodology:

The paper makes use of empirical methodology and a primary research has been conducted with a sample of 62 participants comprising 28 females and 34 males. The participants are all from urban

areas and a majority of them fall within the age group of 18-25 years and comprise mostly of working professionals. The participants were asked about the role of the internet and the information available online in their product/service purchase process and their response to probable interactive online marketing efforts has been corroborated.

A secondary research about the sectors and organisations in India where interactive 3D modelling is currently being used has been conducted.

V. Discussion:

V.1. Existing Areas of Application:

Interactive 3D modelling is being used by players in various sectors for greater involvement with the consumer. We have listed down some sectors in which this technology is being used and tried to identify its benefits.

V.1.1. Automobile Sector-Logix Microsystems:

Logix Microsystems Limited is presently India's fastest growing Software Products Company, owning the world's largest and most compelling collection of Automotive Images and Animation. The products are mainly sold to automotive dealers and a few are sold to portals like Yahoo and AOL. They offer high quality automotive photography in specialised studios to OEMs like Toyota, GM, Ford, Hyundai, Nissan and Renault.

Visually rich interactive tools, makes the **visitor experience engaging, informative and fun.** Interactive animations encourage the prospects to **easily connect with the "right car".**

Their Online Accessories Store helps **in selling accessories online.** Using advanced technology, customers can virtually add or remove accessories, instantly viewing them on their vehicle of choice, and make their decisions in minutes.

Their web portal, Carazoo.com, gives information on cars of numerous makes, models and variants. It has tied up with many dealers all over India, allowing prospective buyers get individual specifications. What makes the carazoo.com experience unique and interactive are features like:

- 360 degree exterior and interior Car Animations
- Paint a Car in all available colours online
- Compare Cars online.

The result is increased time spent on the dealer's website which in turn results in a higher percentage of leads and increased conversions.

V.1.2. Hospitality Sector- Taj Group of hotels

In India, high end luxury hotels such as the Taj, Hyatt, ITC group of hotels provide 3D virtual tours. The website for the Taj hotels has 3D tours comprising a 360 degree view of their lobby, hotel rooms, restaurants, banquet rooms, gardens etc with options of auto rotation and zoom.

A viewer thus experiences the look and feel of the hotel in the comforts of his home and can then decide on booking the hotel and the room of his convenience.

V.1.3. Real Estate Sector-Raheja Developers

The website for the Raheja Developers includes a 3D virtual tour of their Atlantis condominiums which are premium homes targeted at the high end customers. The virtual tour consists of the architectural layout of the home, a 360 degree view of each room and the option of selecting from the layout, a part of the house for viewing.

Such tours engage the viewer by allowing the viewer to walk through each room of the house and thus experience the house and view the facilities available without having to physically visit the location.

V.1.4. High-end Jewellery Stores- CKC jewellers

Premier jewellery stores such as C. Krishniah Chetty & Sons* have implemented Ornate e-counters developed by Dsoft Infotech to enable their customers to digitally experience their jewellery. An inbuilt camera present in the e-counter captures the customer's image. The customer then needs to make a selection based on the pictures of jewellery items preloaded in the kiosk. Once a jewellery is selected, it gets placed on the customer's image which is displayed on the screen for selection.

The benefit of experiential virtual jewellery trial is that it enables the customer to choose the jewellery based on her budget and save time, as at one go the customer can try out five different jewellery images with her image on kiosk screen.

V.1.5. Hairstyling – Sunsilk Gang of Girls

The Sunsilk gang of girls is an interactive website that uses 2D animation technology to allow the users to try out different hairstyles and makeup and then select the one that suits them the best.

The makeover section in the site enables its users to download their photographs onto the website or choose from a set of existing photographs and try out various hair styles, makeup and accessories.

V.2. Demographic groups which are most responsive:

As the reach of internet spreads and the number of hours spent on average online increases, the amount of information that people seek online is increasing.

Our survey results reveal that about 92% of our respondents spend more than an hour online 64.5% of our respondents spend more than 3 hours each day online with more than 50% of them frequently or always looking for information online on products of their interest.

Students and working professionals spend a lot of time online and look at it as a credible repository of information and are most responsive to experiential marketing aided by this technology.

This group of people are looking for more interactive websites which gives them freedom to focus on their specific areas of interest. The major benefits that they wish to reap are – greater convenience, saving time, avoiding the hassles of physically travelling. About 78% of our respondents felt such websites helped them save time. An overwhelming 92% of them felt that they made the buying process smoother (convenience). However 55% felt that even the most interactive sites could not recreate a real shopping experience.

People living in urban India having greater access to internet would naturally be more exposed to and thereby more responsive to this form of marketing.

Many of the products/services (example car, house, jewellery) that use this technology mostly demand high involvement from consumers. In cases of products/ services (hotels) towards which consumers display slightly lower involvement, the players offering such interactive websites are high end ones. In such cases people in high income groups would probably express interest and also benefit from such interactive marketing.

V.3. Challenges:

V.3.1. Costs:

One of the challenges of using interactive 3D modelling technology in India for experiential marketing is the cost involved in the implementation of the 3D technology.

- The average cost of an Ornate e-counter jewellery kiosk designed by Dsoft Infotech is Rs 2.5 lakhs *. The cost of the kiosk and the maintenance cost restricts lower end jewellery stores from implementing this feature.
- Software for virtual hairstyling is available online for free download for limited usage but such freely available software are poor in quality and unreliable. The cost of pay and use software ranges from $10 for personal usage to $500 and upwards for professional usage in salons.
- There are several 360 degree virtual tour providing companies like virtualtourusa, virtually-anywhere, etc with varying costs for each virtual tour. The cost depends upon the type of virtual tour (whether it is for a restaurant or an apartment), number of tour scenes, the quality and features of the tour and the number of hotspots per scene with additional expenses for customization such as voiceovers, still images, panoramic images and pop up windows. Based on the features offered, the cost of a 360 degree virtual tour can vary from around $110 for a 5 scene virtual tour* to as high as $4250 for 10 scenes *.

V.3.2. Large database of photographs:

Another challenge to create any realistic 3D model is that a large number of photographs are required. As more interactive features such as hotspots to rotate and zoom are added, the requirement for photographs increases. The product being marketed has to be captured from different angles and different degrees of detail. To build such a huge database is both costly as well as time consuming. Sanjay Soni, MD, Logix Microsystems in an interview said*- “The major entry barriers in this industry are domain knowledge and building content. The time and effort required to build a product... is immense. Many companies in the US have tried and given up as the costs are too high. In fact, one of our competitors estimated it would cost them a minimum of USD 25 million to replicate our content.”

In case of high end saloons or jewellery stores to create a realistic 3D avatar of a person it might be necessary to capture the individual from different angles. To upload the front, back and profile pictures on to the web may be a slow and costly process and to recreate a 3D model with hotspots to allow varied views in real time maybe a challenge.

V.3.3. Few other challenges:

- The biggest drawback of virtual hairstyle programs is that it is difficult to get a perfect photograph of oneself which meets the guidelines of individual sites. Also most websites cut and paste the individual's face onto the chosen photograph of the model pre-existing in the website (whose hairstyle has been selected) leading to a distorted final image. It is difficult to get the photo to fit perfectly on the underlying photograph. Some sites offer only premade models which do not look realistic.
- While taking a virtual tour, it is difficult to get an idea of the tour in relation to the rest of its location *. Some virtual tours lack real scale of depth as one can travel only sideways or up and down thereby limiting the way of looking at a venue.
- Creation of 3D models and rendering perspective, shadowing, lighting and other photorealistic effects is difficult and time consuming.

V.4. Future Prospects:

The use of interactive 3D modelling as a means of experiential marketing in India is still in its nascent stage and there exists huge potential for the use of the technology by high end players like The Le Meridien, The Mariott, The Ambassador group of hotels in the hospitality sector and DLF Builders, Mantri Developers to name a few in the realty sector. In some cases such as the Sunsilk Gang of Girls, there is scope for up gradation of technology from 2D to 3D animation to connect better with customers. Jewellery stores like C. Krishniah Chetty & Sons can look to place their software application on a web server, taking it from the kiosk to the internet to increase their reach.

V.4.1. High End Saloons:

High end salons in India can provide their customers with virtual haircuts with the option of instant uploading of their photograph on a server which contains a range of different hairstyles categorized based on the length of the hair (short, medium, long). Based on the facial structure of the client, a 3D model can be constructed and the implementation of “hotspots” in the model will allow customization of the image such as changing the hairstyle, hair colour and resizing the volume of the hairstyle. This feature can be extended to providing client makeovers by allowing the client to experiment with different shades and styles of virtual makeup. Wedding packages including virtual hairstyling and makeup trials can be provided by salons as this will help eliminate the makeup trial sessions undertaken by brides and grooms. Software such as *Virtual Hairstudio Salon Edition 2010, Salon Styler Evo, etc* are available for implementing virtual hairstyling and one can purchase virtual hairstyling membership from websites such as *www.thehairstyler.com*. Through virtual haircuts at the salon, the client can get expert opinion from the salon staff and also avoid the hassles of carrying a printed copy of the virtual hairstyle to the salon. This technology will enable clients to preview their looks with a virtual version of the haircut which is customized to fit their faces before they commit to a new hair cut.

V.4.2. High End Banquet/Reception Halls:

3D virtual tours of high end, banquet/wedding halls and conference halls can be put up on the websites. Selection of such halls involves high involvement from the clients and the availability of 360 degree virtual tours online will help prospective clients compare different halls at the same time without having to physically visit them, thereby saving time.

Experiential marketing can be applied to restaurants and resorts by implementing virtual tours of luxury and theme based restaurants and resorts as a tool for attracting customers based on the ambience, décor and facilities provided.

V.4.3. Travel and Tourism:

Attempts are being made by travel and tourism companies to simulate experiences of tours by making audio (http://audioconexus.wordpress.com/) and video recordings of tours available on their websites and as consumers seek greater interactivity they can look towards creating 3D virtual tours of specific monuments- example: The leaning tower of Pisa or the Buckingham Palace, the Mysore Palace and so on. They can also recreate on their websites certain other star attractions of their tours- like a view from the top of the Jungfrau in Europe or a boat ride in the backwaters of Kerala to give the potential customer a taste of what is to follow.

VI. Conclusion:

In today's scenario, consumer engagement from traditionally executed consumer messaging is at an all time low. Consequently, interactive 3D modelling as a means of experiential marketing will help in creating brand awareness and making the brand stand out from the competition. In some

sectors in India, like hospitality and real estate, the application of this technology is still in its nascent stage and is being used by selected high end players only. As the demand for more information (for faster decision making) increases and as the cost of technology decreases such virtual 3D tours can be used by other high end players. Currently, India stands 4th among the countries with the highest internet users* and as internet penetration increases interactive websites provide a huge opportunity that companies cannot afford to ignore.

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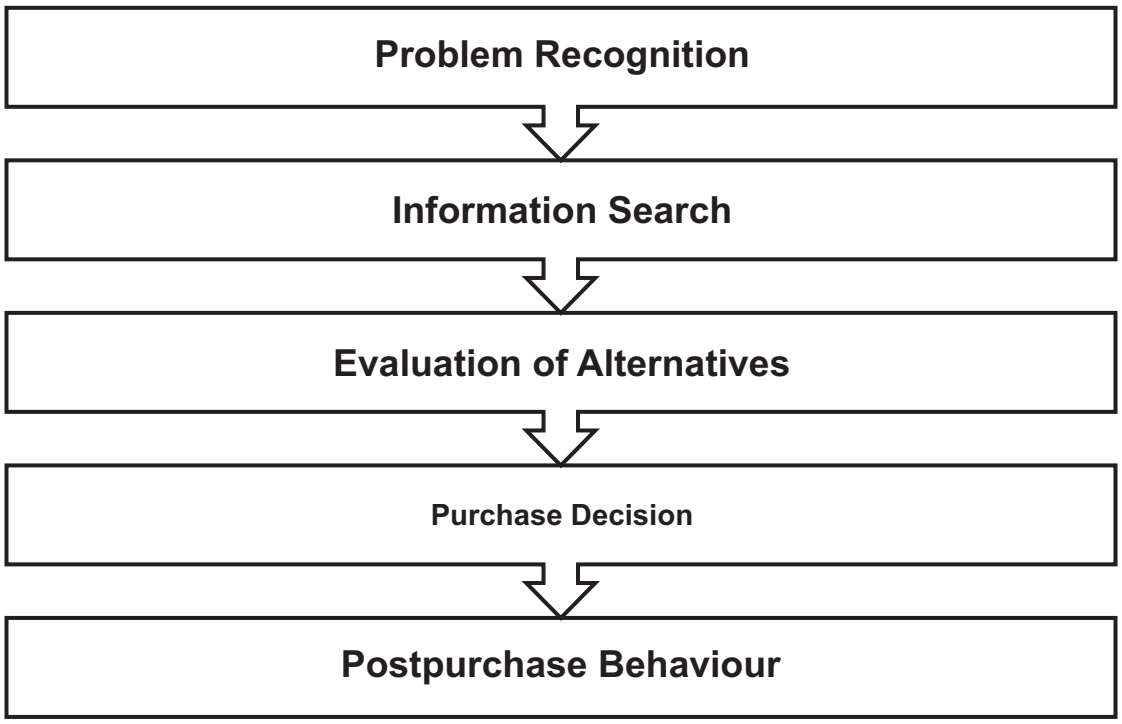

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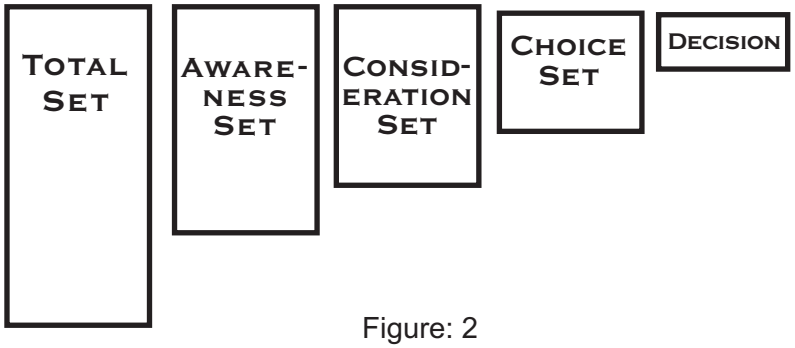

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