

THE APPLICATION OF VIRTUAL REALITY MARKETING STRATEGY ON  
TOURISM: A CONCEPTUALIZED INVESTIGATION

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**ABSTRACT**

Virtual tourism has transformed the buying behaviour outlines of tourists due to the influence of modern technologies. The tourist purchase decisions have been occupied to the next level, from complex to simple. The objective of the study is to cognize the impact of Virtual Reality (VR) on tourist buying behaviour of tourism harvests. Primary data was composed of 100 respondents who used and proficient virtual reality in information search, evaluation of alternatives, purchase decision, purchasing and post-purchase evaluation of the tourism products. The data thus collected are analyzed using frequency and multiple regression. Based on the results, it has been known that the impact of VR (booking tour packaging with the help of Virtual Reality) in selecting the tourism product (by viewing hotels through VR; VR tour experience; travel around cities through VR; viewing historical sites and monuments through VR; by visiting the attractions the natural beauty through VR; impact the overall experience of VR) on the tourism industry is abundant<sup>1</sup>.

**KEY WORDS:** Virtual Tourism, Virtual Reality, Tourism Products and

**1. INTRODUCTION**

can have an immersive travel experience with virtual reality in tourism. There are numerous varieties of virtual tourist services to choose from. They employ a variety of multimedia types, including virtual reality, still photos, music, video, and narrative. It allows viewers to experience a place that cannot be obtained by looking at images or going to a website. For the most immersive experience, virtual reality headsets can be used to access virtual tourist content. A desktop computer or even a mobile device can view it as well. Viewers can participate in events, travel, and visit various areas. From the comfort of their own homes, they can accomplish all of this. There are numerous clear benefits to virtual travel. This implies

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<sup>1</sup>

[https://www.researchgate.net/publication/347897280\\_The\\_Use\\_of\\_Virtual\\_Reality\\_to\\_Influence\\_Motivation\\_Affect\\_Enjoyment\\_and\\_Engagement\\_During\\_Exercise\\_A\\_Scoping\\_Review](https://www.researchgate.net/publication/347897280_The_Use_of_Virtual_Reality_to_Influence_Motivation_Affect_Enjoyment_and_Engagement_During_Exercise_A_Scoping_Review)

that they are not limited by available planes, travel arrangements, worries about safety, or the accessibility of certain locations. They aren't even worried about time zones or weather conditions.

## **2. OBJECTIVES OF THE STUDY:**

- ❖ To distinguish influence of VR applications on digital advertising marketing
- ❖ To identify the benefits and drawbacks of VR marketing.
- ❖ To categorize the practical considerations in executing VR marketing.
- ❖ To understand the impression of Virtual Reality (VR) on vacationer buying behaviour of tourism products<sup>2</sup>

## **3. METHODOLOGY**

The researcher received 100 valid responses through the Online platform from participants who were tourism enthusiasts or adults aged between 20 and 50 and familiar with virtual reality (VR). Chennai was chosen as the geographic focus due to the projected increase in VR usage in the region, the rising interest in virtual travel, and recommendations from the tourism office. The developed questionnaire used a five-point Likert scale to measure each item, with responses ranging from strongly disagree to strongly agree. The researchers analyzed the collected data using SPSS. Purposive sampling, in this scenario, provides a focused approach to target the exact subset of the population that can offer rich and relevant insights, thereby making it an appropriate choice for this study.

### **Pre-Purchase and VR Marketing:**

Tourism-related products are typically regarded as "confidence goods," which customers are not allowed to test ahead of time (Yung & Khoo-Lattimore, 2019). Thanks to VR technology's prowess in constructing spatial settings, customers may "try" intangible goods related to and travel, enabling well-informed decision-making before acquisition. Several professionals in the tourism sector created a series of virtual tours after realizing how well VR technology can convey details. They do this in the hopes that the high-resolution, 360° presentation would increase clients' desire to buy and confidence in their products and the clients a deeper comprehension of their travel offerings. A VR ready 360° film is preferred by most practitioners over a virtual environment produced using computer-generated imagery (CGI) due to its simpler, faster, and less expensive production process. Additionally, it may be viewed in video format by consumers without HMDs as well as by those with HMDs in a virtual reality environment.

### **Post-purchase and VR Promotion:**

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[https://www.researchgate.net/publication/347897280\\_The\\_Use\\_of\\_Virtual\\_Reality\\_to\\_Influence\\_Motivation\\_Affect\\_Enjoyment\\_and\\_Engagement\\_During\\_Exercise\\_A\\_Scoping\\_Review](https://www.researchgate.net/publication/347897280_The_Use_of_Virtual_Reality_to_Influence_Motivation_Affect_Enjoyment_and_Engagement_During_Exercise_A_Scoping_Review)

When a buyer decides to buy, the goal of VR marketing changes from luring them in and showing off the features of the product to interacting with them and building a relationship that will stay. VR marketing is heavily used in the travel and tourism sector. Wrong: Virtual Reality Marketing in Tourism helps business surpass customer expectations by creating and enhancing their brand images and, in some cases, providing their customers with a sense of privilege, all of which lead to increased customer loyalty. However, product upselling and cross-selling depending on consumer preferences also aid in gaining their ongoing support during the relationship-building process.

### **VR Marketing Stimuli:**

Companies can use a variety of media to reach their target audience with their marketing messages. Virtual reality (VR) is a cutting-edge strategy that has grown in popularity as a marketing platform in recent years. VR enables a higher level of media richness than traditional marketing media like text-based advertisements, TV advertisements, or online video content, based on the criteria put forth by Daft and Lengel (1986). This is because VR is more capable of facilitating instant feedback, communicating multiple cues, and presenting a personalized experience. So, companies can convey to their clients more intricate and tailored marketing messages using a medium that is more richly detailed. Such complex VR material could, however, take a long time to create because it will take a lot of work to design and build the sights, sounds, navigation, interactions, and even feedback for other senses like touch, smell, and taste.

Another essential component of a VR experience is the transmission of VR content. These days, the main ways to disseminate VR content are through landing pages, standalone applications, game apps, VR game marketing, social media (including Facebook and YouTube), and immersive events. The degree of immersion that VR offers users varies depending on the caliber of the content and the distribution method.

### **Outcomes of VR Marketing:**

In earlier research, a post-experience self-reported survey was used to gauge customers' attitudes and behavioural intentions, and a variety of marketing outcomes were examined to examine the efficacy of VR marketing. Consumers' attitudes regarding VR applications, brands, and destinations are measured at the attitude level, while their potential to use and reuse VR, visit and return to a destination or attraction, buy products, and promote the products through word-of-mouth or recommendations is measured at the behavioural intention level. Customers' perceptions of the brand's presence and flow experience have been demonstrated to have a favorable impact on their attitudes towards the location and attraction, as well as their intention to go.

### **Practical Considerations:**

VR marketing incentives are the creation and distribution of VR content. Below are the two important practical considerations for VR marketing.

**1. VR Content Creation:**

Three processes are often involved in creating VR content: planning, shooting, and postproduction. To choose which scenes to include and how best to communicate the story, a storyboard should first be created. Stage directions and scripts should be written if actors are going to be involved. A storyboard is a crucial tool that helps businesses determine which type of virtual reality content best tells their narrative. For instance, a basic virtual tour of a typical hotel room might only require a few high-resolution 360-degree photos, but a virtual tour of an event venue that is intended for event planners would benefit more from several 360-degree movies that allow viewers to navigate about the space.

The crew must choose the ideal camera position and lighting conditions on location before beginning any filming or 3D scanning. It is important to think about how to accurately sew the scenes together to raise the virtual environment's level of realism. Outdoor photo sessions should only be done in comparable daylight settings and weather conditions to guarantee uniformity across the photos or movies. It should be noted that the term "whole shooting process" may apply to the 3D scanning of the actual terrain, buildings, and objects in VR content that is exclusively made with computer-generated imagery (CGI). These scans will serve as source materials for postproduction. In this instance, no real-world scene will be captured.

Video and audio editing, as well as stitching videos or images, are typically done during the postproduction phase. At this point, any interactive or gaming elements are also included. When the VR materials are prepared, testing will be done to further enhance and polish the user experience. It can be preferable for companies to work with a vendor or staff member with the necessary expertise given the quickly evolving technologies for VR content creation to guarantee that the VR experience is current. It is advisable for businesses to thoroughly examine the portfolios of possible vendors and verify the quality of their work by contacting past clients or employers.

**2. VR Content Delivery:**

Travel agencies typically use social media, landing pages, standalone applications, and immersive events to distribute their VR material. Businesses might find it challenging to maintain control over the distribution of their VR content, with the possible exception of immersive events where VR settings are supplied.

Consumers can see the information on the screens of their computers or mobile phones Wong: Virtual Reality Marketing in Tourism, or they can use their own VR HMD. The method of delivery has a major impact on the VR experience.

Content testing should therefore be conducted on various media channels before to the release of VR materials to the market to guarantee that comparable marketing goals may be met across all delivery channels.

**Future of VR Marketing:**

The Emmy Award-winning Netflix TV series Black Mirror episode "San Junipero" demonstrates to viewers the potential of virtual reality in their made-up future. The elderly can visit San Junipero, a seaside vacation town in virtual reality, at any time of day in the body of their younger selves. The elderly can enjoy life and engage in things that their advanced age would otherwise prevent them from doing.

After they pass away, individuals can even decide to dwell in virtual reality forever by uploading their "mind" to the simulation. San Junipero may appear to be far more than what VR technology can now deliver, given its current state of development. Bridging the gap, this last section will present three significant directions of current VR development connected to the tourism industry.

**4.ANALYSIS AND INTERPRETATION**

Multiple Regression Based on the hypothesis, multiple regression was performed to find out the role of a dependent variable (i.e. booking tour packaging with the help of Virtual Reality) on the independent variables as (by viewing hotel through VR; VR tour experience; by exploring cities through VR; viewing historical sites and monuments through VR; by sightseeing the natural beauty through VR; impact the overall experience of VR). Both the dependent and independent variables are continuous in nature<sup>3</sup>.

The Multiple R value<sup>4</sup> : 0.899

The R Square value : 0.759

The F value : 35.669

The P value : <0.000\*\*

**Table 1**  
**Coefficients Value for Virtual Reality Tourists**

Variables	Unstandardized Co-efficient		Standardized Co-efficient	t value	P value
	B	Std Error	Beta		
Constant	16.354	2.358		6.936	.000**
X <sub>1</sub>	.143	.058	.139	2.453	.015*
X <sub>2</sub>	.128	.052	.138	2.454	.015*
X <sub>3</sub>	.048	.061	.047	.792	.429
X <sub>4</sub>	.050	.051	.055	.964	.336
X <sub>5</sub>	.113	.051	.123	2.208	.028*

<sup>3</sup>

[https://www.researchgate.net/publication/347897280\\_The\\_Use\\_of\\_Virtual\\_Reality\\_to\\_Influence\\_Motivation\\_Affect\\_Enjoyment\\_and\\_Engagement\\_During\\_Exercise\\_A\\_Scoping\\_Review](https://www.researchgate.net/publication/347897280_The_Use_of_Virtual_Reality_to_Influence_Motivation_Affect_Enjoyment_and_Engagement_During_Exercise_A_Scoping_Review)

<sup>4</sup> <https://archives.palarch.nl/index.php/jae/article/download/8111/7576/15906>

X <sub>6</sub>	.068	.057	.072	1.189	.235
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Note: \*\* - Indicates significance at 1%. Source- processed secondary data<sup>5</sup>

\* - Indicates significance at 5%.

The anticipated standards are obtained as a linear combination of by viewing hotel through Virtual Reality (X<sub>1</sub>), VR tour experience (X<sub>2</sub>), by exploring cities through VR (X<sub>3</sub>), viewing historical sites and monuments through VR (X<sub>4</sub>), by sightseeing the natural beauty through VR (X<sub>5</sub>), and impact the overall experience of VR (X<sub>6</sub>). The multiple<sup>6</sup> coefficients of correlation value of 0.899 represent that the association between Virtual Reality Tourists and the six independent variables is quite robust and constructive<sup>7</sup>.

The value of **R square** is 0.759 and significant at 1 % level, which means that about 75.90% of the variation in Virtual Reality Tourists is explained by the estimated that uses by viewing hotel through Virtual Reality, VR tour experience, by exploring cities through VR, viewing historical sites and monuments through VR, by sightseeing the natural beauty through VR and impact the overall experience of VR, as the independent variables<sup>8</sup>.

(X<sub>1</sub>), (X<sub>2</sub>), (X<sub>3</sub>), (X<sub>4</sub>), (X<sub>5</sub>), and (X<sub>6</sub>)

The Multiple Regression Equation<sup>9</sup> is

$$Y = 16.354 + 0.143 X_1 + 0.128X_2 + 0.048 X_3 + 0.050X_4 + 0.113X_5 + 0.068X_6$$

Here the coefficient of X<sub>1</sub> is 0.143 and significant at 5% level<sup>10</sup>, represents the part effect of by viewing hotel through Virtual Reality on Virtual Reality, hold as other variables are constant. The proposed optimistic symbol reveals such effect is optimistic that Virtual Reality would rise by 0.143 for every unit rise in by viewing hotel through Virtual Reality. The coefficient of X<sub>2</sub> is 0.128 and significant at 5% level; denote the part effect of VR tour experience on Virtual Reality, hold as other variables are constant. The projected positive symbol reveals such effect is positive that Virtual Reality would increase by 0.128 for every unit increase in VR tour experience. The coefficient of X<sub>3</sub> is 0.048 and is not significant at 5% level represents the part effect of by exploring cities through VR on Virtual Reality, hold as other variables are constant. The projected positive symbol reveals such effect is positive that Virtual Reality would increase by 0.048 for every unit increase in by exploring cities through VR. The coefficient of X<sub>4</sub> is 0.050 and is not significant at a 5% level; represents the part effect of viewing historical sites and monuments through VR on Virtual Reality, hold as other variables are constant. The projected optimistic symbol implies that such outcome is optimistic that Virtual Reality would increase by 0.050 for every unit increase in

<sup>5</sup> <https://archives.palarch.nl/index.php/jae/article/download/8111/7576/15906>

<sup>6</sup> <https://archives.palarch.nl/index.php/jae/article/download/8111/7576/15906>

<sup>7</sup>

[https://www.researchgate.net/publication/347897280\\_The\\_Use\\_of\\_Virtual\\_Reality\\_to\\_Influence\\_Motivation\\_Affect\\_Enjoyment\\_and\\_Engagement\\_During\\_Exercise\\_A\\_Scoping\\_Review](https://www.researchgate.net/publication/347897280_The_Use_of_Virtual_Reality_to_Influence_Motivation_Affect_Enjoyment_and_Engagement_During_Exercise_A_Scoping_Review)

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<sup>9</sup> <https://archives.palarch.nl/index.php/jae/article/download/8111/7576/15906>

<sup>10</sup> <https://archives.palarch.nl/index.php/jae/article/download/8111/7576/15906>



viewing historical sites and monuments through VR. The coefficient of  $X_5$  is 0.113 and significant at 5% level represents the part effect of by sightseeing the natural beauty through VR on Virtual Reality, hold as other variables are constant. The projected positive symbol reveals such effect is positive that Virtual Reality would increase by 0.113 for every unit increase in by sightseeing the natural beauty through VR. The coefficient of  $X_6$  is 0.068 and is not significant at a 5% level, represents the part effect of impact the overall experience of VR on Virtual Reality, hold as other variables are constant. The projected positive symbol reveals such effect is positive that Virtual Reality would increase by 0.068 for every unit increase in impact the overall experience of VR.

Based on standardized co-efficient, by viewing hotel through Virtual Reality (0.143) is the most important factor to extract Virtual Reality, followed by VR tour experience (0.128), and by sightseeing the natural beauty through VR (0.123).

### **Influence of VR applications on digital marketing among different age group of tourists**

The researcher has made an attempt to find out the significant difference among different age group of tourists with respect to the influence of VR applications on digital marketing, 'ANOVA' test is applied with the null hypothesis as, **"There is no significant difference among different age group of tourists with respect to the influence of VR applications on digital marketing"**. The result of 'ANOVA' test is demonstrated in Table 2.

**Table 2**

**'ANOVA' test for significant difference among age group of tourists with respect to the Influence of VR applications on digital marketing**

Influence of VR applications on digital marketing	Age group [in years] (Mean Score)				F Statistics
	Below 25	25-35	35-45	Above 45	
Define clear objectives	4.1143	3.5658	3.7857	3.7736	4.970*
Seamless integration with channels	3.7929	3.4211	3.7937	3.5330	3.876*
User-friendly experience	3.5143	3.2566	3.5476	3.3774	1.817
Interactive brand experiences	3.2357	2.9737	3.6984	3.1179	8.497*
Social media activation	3.6071	3.0855	3.4921	2.8915	10.464*
Product visualization and personalization	3.8071	3.3355	4.0556	3.7358	7.746*
Data and Insights	3.7429	3.2039	3.6111	3.5613	4.514*
Audience Research and Targeting	3.2929	3.0592	3.2540	2.9104	3.052*
Strategic Integration	3.6929	3.1711	3.6190	3.0660	8.616*

**Source: Primary data**

\*-Significant at five per cent level

From the above table it is evident that define clear objectives and product visualization and personalization are the important influence of VR applications on digital marketing among the tourists who are in the age group of below 25 years as their mean scores are 4.1143 and 3.8071 respectively. It is further evident that define clear objectives and seamless integration with channels are the important influence of VR applications on digital marketing among the tourists who are in the age group between 25-35 years as their mean scores are 3.5658 and 3.4211 respectively. Table further highlights that product visualization and personalization and seamless integration with channels are the important influence of VR applications on digital marketing among the tourists who are in the age group between 35-45 years as their mean scores are 4.0556 and 3.7937 respectively. Table further shows that define clear objectives and product visualization and personalization are the important influence of VR applications on digital marketing among the tourists who are in the age group of above 45 years as their mean scores are 3.7736 and 3.7358 respectively.

Regarding the influence of VR applications on digital marketing among different age group of tourists, define clear objectives, seamless integration with channels, interactive brand experiences, social media activation, product visualization and personalization, data and insights, audience research and targeting and strategic integration are statistically significant at 5 per cent level.

## 5.SUGGESTIONS

The results of this study provide direction to decision-making practitioners. First, consider the obstacles that occur due to COVID-19 such as concerns about traveling and health threats that have depressed the tourism sector. This research provides the right direction to solve the problems that develop by utilizing technology for the tourism sector. Tourist destination service providers need to consider using VR tourism as a way to attract tourists to travel. This study reinforces the importance of the role of visitor experience on their behavioural intention to tourist destinations. Taking into account the important role of visitor experience, it can be useful in expressing the right marketing strategy in the context of VR tourism. The findings from this study provide an important direction on how tourist destination owners and travel service providers utilize VR tourism as an additional medium to conduct tourism marketing to restore tourism. By developing the right VR tourism, service providers will receive benefits in the form of satisfaction and positive behavioural intention towards tourist destinations<sup>11</sup>.

## 6. CONCLUSION:

VR technology has transformed the tourism marketing sector by enabling consumers to experience services before making a purchase, an opportunity that was previously unattainable. It

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<sup>11</sup>

[https://www.researchgate.net/publication/369748583\\_Virtual\\_Reality\\_Tourism\\_Linkage\\_Tourist\\_Intention\\_Satisfaction\\_and\\_Quality\\_Moderating\\_Role\\_of\\_Gender\\_and\\_Visiting\\_Experience/fulltext/642ae7684e83cd0e2f8a7380/Virtual-Reality-Tourism-Linkage-Tourist-Intention-Satisfaction-and-Quality-Moderating-Role-of-Gender-and-Visiting-Experience.pdf](https://www.researchgate.net/publication/369748583_Virtual_Reality_Tourism_Linkage_Tourist_Intention_Satisfaction_and_Quality_Moderating_Role_of_Gender_and_Visiting_Experience/fulltext/642ae7684e83cd0e2f8a7380/Virtual-Reality-Tourism-Linkage-Tourist-Intention-Satisfaction-and-Quality-Moderating-Role-of-Gender-and-Visiting-Experience.pdf)



is expected that VR technology will find widespread use in the sector, most likely in more inventive and imaginative ways. VR technology is poised to bring about a dramatic shift in the hotel and tourist sector once it gets beyond its technical obstacles and grows in popularity among the general public. Virtual reality will make it possible to move through time and space in an increasingly immersive manner.

## REFERENCES

- 1) Vishwakarma, P., Mukherjee, S., & Datta, B. (2020). Travelers' intention to adopt virtual reality: A consumer value perspective. *Journal of Destination Marketing & Management*, 17, 100456.
- 2) Yung, R., & Khoo-Lattimore, C. (2019). New realities: a systematic literature review on virtual reality and augmented reality in tourism research. *Current Issues in Tourism*, 22(17), 2056-2081.
- 3) Lo, W. H., & Cheng, K. L. B. (2020). Does virtual reality attract visitors? The mediating effect of presence on consumer response in virtual reality tourism advertising. *Information Technology & Tourism*, 22(4), 537-562.
- 4) Stanton, T. R. (2020). The Use of Virtual Reality to Influence Motivation, Affect, Enjoyment, and Engagement during Exercise: A Scoping Review. *Frontiers in Virtual Reality*, 1, 39.
- 5). [https://link.springer.com/chapter/10.1007/978-3-031-51997-0\\_33](https://link.springer.com/chapter/10.1007/978-3-031-51997-0_33)