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Travelers' Intention to adopt Virtual Reality: A Consumer Value Perspective with Moderating Effect of VR Technology Awareness

Saba Sajid[1],Hina Gull[2],Jawad Ali[3] ,Sajid Hussain[4]
[1] Superior University, Lahore, Pakistan
[2] Superior University, Lahore, Pakistan
[3] Bath Spa University, Rak, UAE
[4] Superior University, Lahore, Pakistan

Abstract
This Study is undertaken to examine the relationship between the Travelers' intention to adopt virtual reality and effect of virtual reality technology awareness: A consumer value perspective with moderating effect of virtual reality technology Awareness and workplace spirituality. Its aim is to investigate the Travelers' intention to adopt virtual reality. It further scrutinizes the mediating effect of the virtual reality technology awareness and work space spirituality. The target population is the Travel sector, frontline employee and managerial staff. To complement this study, a sample of 125 people was nominated. The data were gathered using a "Simple Random Sampling" and were investigated through the partial least structural equation modeling (PLS-SEM) technique. Data Collection is a very challenging task due to the Covid19 pandemic. This research is an extension of existing literature by adding the mediator virtual reality technology Awareness. The results advise that virtual reality technology completely subsidizes technological performance. Mediating roles of Pro-environmental Performance and Moderating virtual reality technology awareness and workplace spirituality were also found statistically significant. Moreover, findings also revealed that the relationship between the moderating variables would be stronger when employees become individually more concerned about the technology.

Keywords: Perceived value, Perceived Usefulness, Perceived Enjoyment, Perceived Cost, Perceived Physical Risk.

Introduction

Virtual reality leads to immersive photographs or videos that allow the viewer to experience the entirety of a scene at 360 degrees. Unlike a standard video clip, which is taken from a fixed point of view, every part of a position is captured by Virtual reality output. Virtual reality can be used in the travel industry to capture vacation attractions in a creative and immersive way. Using professional sensors, rigs and applications, this is done. Our study will evolve around the intentions of adoptability by consumer and their value perspective. To ensure the perspective of Tourists regarding Virtual Reality and its acceptability, initially we have to work out on the Quality of Content & quality of that device which is being offered to tourists for virtual reality tours. We will evaluate consumer value perspective in our study using different variables. Previous study was conducted in India and audience was from just one culture, this time we will expand our horizon from India to all around the globe but mostly from Asia.

Technological developments, in all of their many forms, frequently have immediate and long-term effects on tourism. Recent growth of information and communication technologies (ICTs) has transformed tourism in a variety of ways, with effects ranging from consumer demand to site management. Virtual reality is described as the use of a computer-generated 3D world – referred to as a 'virtual environment' (VE) – in which one may explore and maybe interact, resulting in real-time simulation of one or more of the user's five senses. The capacity to move around and explore the virtual environment is referred to as navigation, while the capacity to select and manipulate things inside the virtual environment is referred to as interaction (Rauscher, 2021). The ability of a virtual reality experience to offer physical immersion and psychological presence. The term 'exploration' refers to how far a user is removed from realism.

In a 'fully immersive system,' the user is totally engulfed by the virtual environment and has no interaction with the actual world, but in a 'semi-immersive' or 'obsessional system,' the user has no interaction with the actual world. Some virtual environment systems mimic the feeling of regular vision by providing a distinct view for each eye. The eye that gives depth awareness is known as a stereoscopic eye. Many virtual environment replicate real-world places or items, and such virtual environment is likely to be especially common among those utilized in tourism (Lee, S. A., Lee, & Jeong, 2021). There are two basic approaches for creating a 3D digital model:

i) Laser scanning
ii) Photogrammetry

Laser scanners capture data sets that define the geometric properties of an item. Photogrammetry involves the measurement of shape and, in certain cases, color, but form and color are not included in photogrammetry.

Virtual reality leads to immersive photographs or videos that allow the viewer to experience the entirety of a scene at 360 degrees. Unlike a standard video clip, which is taken from a fixed point of view, every part of a position is captured by Virtual reality output. Virtual reality can be used in the travel industry to capture vacation attractions in a creative and immersive way. By using professional sensors, rigs and applications this app is used. Furthermore Flavián, Ibáñez-Sánchez, & Orús, (2021) recognized that ‘‘Virtual reality has the potential to serve as an important component in the creation of tourist strategy and in the development of tourist products as well as the planning process". Most notably, Virtual reality enable production of realistic, accessible virtual environments for tourist planner. One benefit of adopting virtual reality for participative planning is that it ‘‘provides a means for people from all backgrounds to interact. In the actual world, individuals interact with their surroundings.

Lack of technology in virtualization

Virtual reality's influence on tourism may vary as much as technology, depending on pricing and societal views. It is critical that it gets more attractive in the following step acceptability. What matters at this point is whether or not these tourismmovements will be aided or hindered by certain activities and technologies.Tourists are interested in learning more about them before acquiring their services. Today, we may argue that internet technology has made it much simpler to do this but advancements in virtual reality technology are required.Tele-sensation is made possible because to virtual reality technologies. It creates a virtual environment for viewers to explore and walk around, as well as interact with virtual things. The virtual world, like the actual world, provides us with a stereoscopic picture from the front or side, depending on our vantage point (Ahmadpour, Keep, Janssen, Rouf, & Marthick, 2020).

One of the drawbacks of early virtual reality technology is that it has low resolution and is dimly lighted. Modern projectors and head-mounted displays are both improvements (Rauscher, 2021).In today's market, people are looking for applications that go beyond leisure, tourism, or marketing and are more cost-effective. Virtual interfaces must also be enhanced to eliminate flaws like clipping, which causes solid objects to seem as if they may be passed through.The top tech giants are already working on headgear that don't require connections and can display visuals in high definition. They're working on Virtual Reality headsets that have 8K resolution and have significantly more powerful CPUs (Lin, L.-P. L., Huang, & Ho, 2020).

Lack of digitalization

The process of turning digital information into its digital version is known as digitization.With the aid of computerized data and information, digitalization improves the efficiency of working by boosting corporate processes. When we talk about digitalization in tourism, we usually think of online hotel bookings and digital payments. However, the tourism sector has absorbed digitalization and mixed it with itself not just to build new tourism routes but also to build measures to boost visitor satisfaction. But with the passage of time advancement in digitalization is required which can enhance the perceived value of tourist and also can improve their satisfaction level (Menon, Bhatt, & Sharma, 2021).Access to dependable digital infrastructure must be encouraged, with a focus on improving digital literacy. Access to digital infrastructure is extremely difficult in rural places.

Research Objective:

1. To identify the importance & impact of VR device in Tourism industry & Tourist life.
2. To identify the adoption of intentions of tourists considering their culture & heritage belonging.
3. To check the impact of usage while identifying the availability of VR technology & Quality of content available.

1.1. Research Questions:

Main research questions to be answered in this study are given below as:

1. Does the Usage of VR device is impactful for tourism industry & tourist life.
2. Does Perceived value depends upon attitudes in adoption by behavioral intentions of tourists?
3. Do perceived immersion & Content quality has positive or negative relation with perceived value?

1.2. Significance of Study:

Practical significance

Seeing as Virtual reality provides “an interactive computer-generated medium that allows participants to create simulated experiences of both real and unreal situations and it has aided the development of the tourism field (Huang, Huang, & Wang, 2020).The following are some of the advantages of virtual reality in tourism: – Allowing users to envision themselves in a tourist location. – The ability to portray 360 degrees of a place in high quality. Providing users with memorable and unique experiences. Virtual reality is allowing hotels, travel agencies, and other tourism-related enterprises to give prospective consumers with a virtual trip experience.... The capacity to offer hotels, flights, and travel items based on the experiences they can provide is the key benefit (Leung, Lyu, & Bai, 2020).Virtual reality's potential to attract customers, raise online income, and create

more reservations has been recognized by the hotel and tourism industries. Virtual reality is used in these interactive tours to provide potential visitors with an immersive, 360-degree overview of the hotel so they can get a feel for it before making a reservation (Zeng, Cao, Lin, & Xiao, 2020).The growth of the Internet and other technical breakthroughs has changed the tourism industry's structure as well as how tourists view and consume tourism locations. Destination marketing businesses may engage with targeted consumers using the 3D virtual world, which provides a rich environment for potential tourists to discover tourism destinations.

Theoretical significance

Virtual reality (VR) has a wide range of applications in tourism that demand further attention from researchers and practitioners. As virtual reality technology advances, the number and importance of such applications will definitely grow. Six aspects of tourism may benefit from virtual reality: planning and administration, marketing, entertainment, education, accessibility, and heritage preservation (Kim, Lee, & Jung, 2020).Researchers have performed studies to evaluate the links between perceived usefulness and perceived ease of use and behavioral intentions, in keeping with the consumer behavior literature on information technology use.We turn to the technology acceptance model (TAM), which has proven to be a useful framework in explaining the use of information technologies and has been applied as a theoretical framework in studies of consumer behavior and computer-mediated environment to better understand these connections between marketing and consumer intention in the context of 3D virtual tourism.An investigation of the factors influencing customer happiness and preference in internet marketing. According to (Rauscher, 2021) the structures Consumer attitudes and satisfaction in Web environments might be predicted by perceived ease of use and usefulness.

1.3. Definitions of Keywords:

Perceived value:

(Li & Shang, 2020) defined perceived value as "the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given.

Perceived Usefulness:

(Caffaro, Cremasco, Roccato, & Cavallo, 2020) defines perceived ease of use as "the degree to which a person believes that using a particular system would be free of effort. (Amoako-Gyampah, 2007) consider perceived usefulness to be similar to the functional benefits of using products or services.

Perceived Enjoyment:

(Lin, C.-Y., Huang, & Ko, 2020) defined perceived enjoyment as "the extent to which the activity of using the computer is perceived to be enjoyable in its own right, apart from any performance consequences that may be anticipated".

Perceived Cost

(Shao, Bai, Shu, & Joppe, 2020) define perceived cost as the cost incurred in the adoption of technology and consider it to be a barrier in the adoption of innovation. Moreover, perceived cost is a prominent factor in information system adoption.

Perceived Physical Risk:

According to (Yung, Khoo-Lattimore, Prayag, & Surovaya, 2020)perceived physical risk refers to the likelihood that the product may physically harm the consumer and others close to him/her

Methods

This study uses a basic random sampling strategy, an initial strategy that allocates an equivalent chance of being chosen as the topic for every portion of the model. A simple random procedure can keep the academic in the range of defendants from being unfairly fetched since every portion of the populace is equally nominated. This study has picked some of the Foreign and Local Tourism firms to monitor all the factor of study. This is very important to determine a suitable sample size for any investigation. To validate that the selected sample reflects a certain population, the establishment of an efficient sample size is necessary. The sample of employees is 125 as the size of the population. Quantitative research approach is applied in this study because it makes use of questionnaires, surveys and experiments to gather data that is revised and tabulated in numbers, which allows the data to be characterized by the use of statistical analysis. Questionnaires were collected for data collection from Foreign & Local Tourists at Tourism spots and Online.

This study explains the analyses carried out in line with the proposed data analytics approach and provides the empirical findings and results to evaluate the study hypothesis. Data analysis and path modeling were carried out utilizing software of the Partial Least Square (PLSSEM) Smart PLS 2.0 (M3) structural equation (SEM) approaches

This studyis covered by a number of key components, and the respondents' profile is based on demographic information, descriptive analysis, and preliminary analysis, followed by the goodness of the measuring portion in which the validity of the measuring model is defined. Subsequently, the structural model is validated in order to calculate the final results of this study, by evaluating the direct, mediating and moderating hypotheses.

1.1 Response rate:

Table 1:

Items	Frequency	Percentage
Total Questionnaires	150	100
Rejected Questionnaires	25	16.6
Accepted Questionnaires	125	83

Foreign & Local tourist's data have been collected at online and tourist locations. The surveys were completed by a total of 150 respondents. In particular, a total of 25 replies were omitted from the study following data collection as several questionnaires were incomplete and many variables were missing per instance. For analysis, the data acquired were placed in Smart PLS. In Smart PLS 2.0 M3 the study and test of validity and reliability, measurement and structural model were carried out.

Findings

1.2 Editing and Coding:

The initial stage in the analysis of data is to process the raw data. The edition is to assure that data accurately input. The data is completed and structured in a standard manner. To ease coding and tabulation is in line with question intent and other information contained in the survey. In order to check for omissions, editing is also required. Data coding categorization is principally two. The first category presupposes that the articles should be compatible with the study structures. For ease of identification and hitch free analysis, each build should have its own various parts which raise inquiries, and, secondly, the code number should be issued to each construct (Huxley, 2020).

1.3 Data Screening:

In particular, quantitative research cannot be based on the relevance of data screening in any type of data analysis since it offers a very solid basis for the achievement of meaningful results. The quality of the output and analysis is dependent on the quality of early data screening, despite the significant load. Needless to state here, disregarding the data screening potential will always lead to a bad performance and testing quality. The quality of data might be guaranteed with simple proofreading; this strategy can be highly tasked if an amount of data is processed. This study started with missing data detection (Cai, Li, & Wang, 2020).

1.4 Demographic Profile of the Respondents

This section describes the demographic profile of the respondents in the sample. The demographic characteristics examined in this study include gender, age, and qualification.

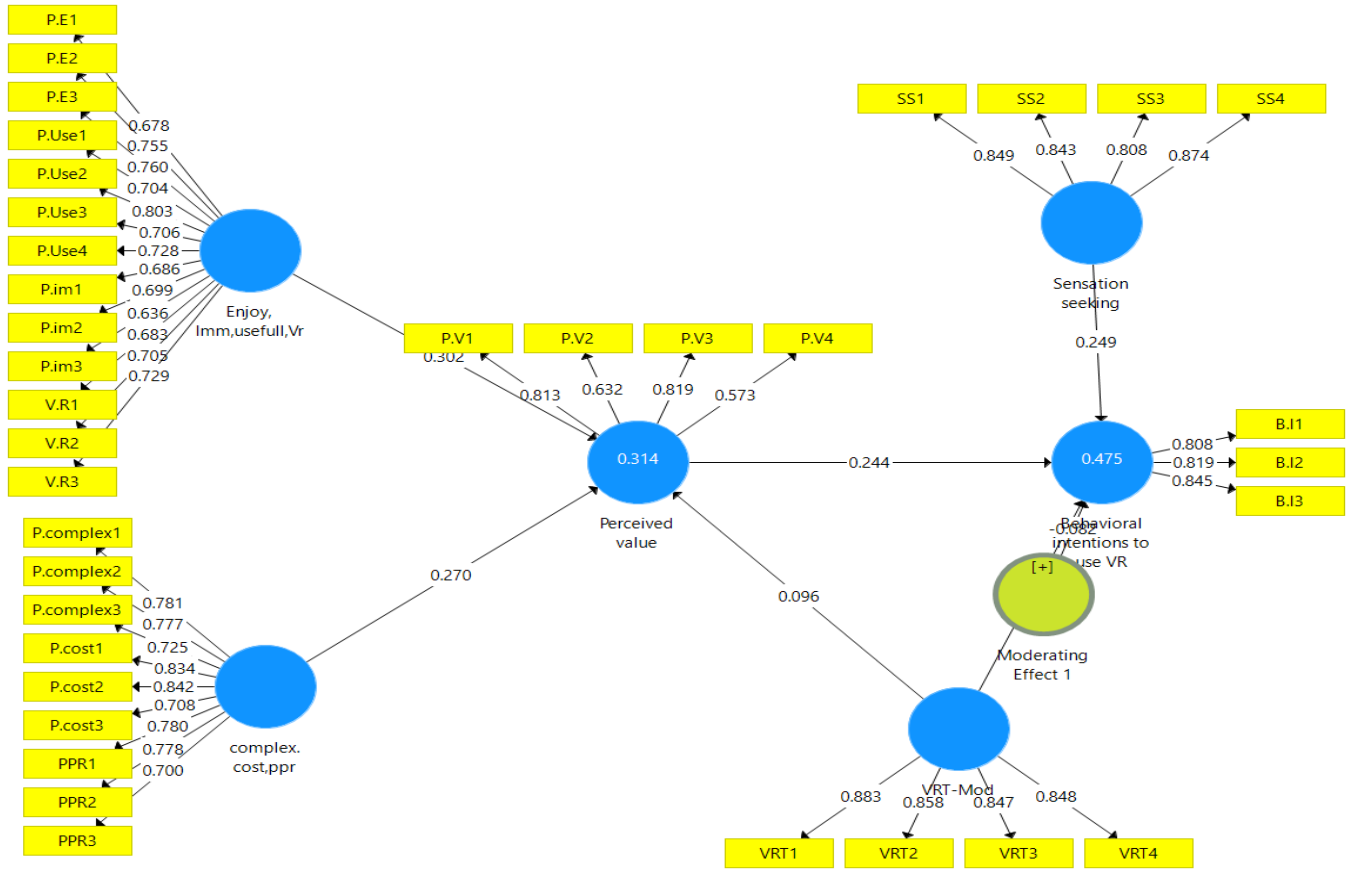
Table 2:

	Percentage
Gender	
Male	70%
Female	30%
Age (in years)	
Under 21	
21 to 34	
35 and above	
Education	**Percentage**
Graduation	80%
Masters	01%
M.Phil	15%

The table 2 provides the gender overview of the interviewees. In each function of the industry, the survey was conducted to both sexes. The results suggest that males represent far more than females in the poll. 70 percent of responses were male compared with 30 percent were female. In relation to the age category, Majority was in the age of 21 to 34 and approximately 5% were in the 35-year age or older age group. There were just 3 responses, the smallest group under 21 years of age.

The table provides an overview of the qualifications of the responders. A number of responders possess 80 percent bachelor's degrees, whereas 15 possess M Phil. Only 1 responder possesses the Master's degree in comparison to a big number of M Phil and a graduate Bachelor.

PLS model:



The partial least squares path modeling or partial least squares structural equation modeling (PLS-PM, PLS-SEM) is a method of structural equation modeling which allows estimating complex cause-effect relationship models with latent variables. SmartPLS is software with graphical user interface for variance-based structural equation modeling using the partial least squares path modeling method. SmartPLS 3 is a milestone in latent variable modeling. It combines state of the art methods (e.g., PLS-POS, IPMA, complex bootstrapping routines) with an easy to use and intuitive graphical user interface.

1.5 Outer load:

The outer load of all variables with their relationship is best explained by this table 3:

Table 3:

	Behavioral intentions to use VR	Enjoy, Imm,usefull,Vr	Moderating Effect 1	Perceived value	Sensation seeking	VRT-Mod	complex. cost,ppr
B.I1	0.808						
B.I2	0.819						
B.I3	0.845						
P.E1		0.678					
P.E2		0.755					
P.E3		0.76					
P.Use1		0.704					
P.Use2		0.803					
P.Use3		0.706					
P.Use4		0.728					
P.V1				0.813			
P.V2				0.632			
P.V3				0.819			
P.V4				0.573			
P.complex1							0.781
P.complex2							0.777
P.complex3							0.725
P.cost1							0.834
P.cost2							0.842
P.cost3							0.708
P.im1		0.686					
P.im2		0.699					
P.im3		0.636					
PPR1							0.78
PPR2							0.778
PPR3							0.7
Perceived value * VRT-Mod			1.069				
SS1					0.849		
SS2					0.843		
SS3					0.808		
SS4					0.874		
V.R1		0.683					
V.R2		0.705					
V.R3		0.729					
VRT1						0.883	
VRT2						0.858	
VRT3						0.847	
VRT4						0.848	

This table shows the significant positive relation among all variable with value more than 0.700 and shows inappropriate results for some variables having value less than 0.700.

1.6 Outer weight:

Table 4 shows the outer weight of the variables:

Table 4:

	Behavioral intentions to use VR	Enjoy, Imm,usefull,Vr	Moderating Effect 1	Perceived value	Sensation seeking	VRT-Mod	complex. cost,ppr
B.I1	0.344						
B.I2	0.333						
B.I3	0.532						
P.E1		0.063					
P.E2		0.119					
P.E3		0.104					
P.Use1		0.125					
P.Use2		0.146					
P.Use3		0.102					
P.Use4		0.098					
P.V1				0.385			
P.V2				0.322			
P.V3				0.37			
P.V4				0.314			
P.complex1							0.109
P.complex2							0.167
P.complex3							0.102
P.cost1							0.162
P.cost2							0.164
P.cost3							0.108
P.im1		0.096					
P.im2		0.136					
P.im3		0.106					
PPR1							0.187
PPR2							0.147
PPR3							0.145
Perceived value * VRT-Mod			1				
SS1					0.256		
SS2					0.338		
SS3					0.232		
SS4					0.354		
V.R1		0.112					
V.R2		0.1					
V.R3		0.087					
VRT1						0.299	
VRT2						0.277	
VRT3						0.345	
VRT4						0.243	

Table shows that all variables have positive and significant result ranging from 0.087 to 0.532. R-square value:

Table5:

	R Square	R Square Adjusted
Behavioral intentions to use VR	0.475	0.458
Perceived value	0.314	0.298

It shows the r-square value of behavioral intention as 0.475 which is adjusted to 0.458 and perceived value r-square value is 0.314 which is adjusted to 0.298.

1.7 F-square:

Table 6:

	Behavioral intentions to use VR	Enjoy, Imm,usefull,Vr	Moderating Effect 1	Perceived value	Sensation seeking	VRT-Mod	complex. cost,ppr
Behavioral intentions to use VR							
Enjoy, Imm,usefull,Vr				0.075			
Moderating Effect 1	0.014						
Perceived value	0.092						
Sensation seeking	0.072						
VRT-Mod	0.163			0.01			
complex. cost,ppr				0.071			

This table shows significant appropriate values for all variables except the relationship between moderating role of virtual reality technology and perceived value.

1.8 Assessment of Reflective Measurement Model

In PLS, the reliability of individual item/construct is assessed by inspecting the item loadings on their latent construct respectively (Hulland, 1999). The higher loadings mean that there is more variance shared between the construct and measurement rather than an error variance, whereas low loadings show that the power of model explanation is highly small which reduces the estimated parameters linking the constructs(van Amelsvoort, Fleuren, & Kant, 2020). For reflective measurement model, the indicators are closely related and interchangeable and their reliability and validity should be reviewed and reported in detail. Thus, to assess the measurement model, the researcher verified both reliability and validity. Reliability was measured through composite reliability and validity was assessed by convergent and discriminant validity. CFA was conducted to assess internal consistency (e.g. composite reliability), convergent validity (e.g. average variance extracted) and discriminant validity (i.e. cross loadings and Fornell-Larcker criterion) of the instruments. This is to confirm that the measurements are reliable and valid before assessing the relationships in the structural model.

1.8.1 Composite Reliability

To assess the internal consistency reliability of the construct, composite reliability (CR) was determined. In this procedure, all items' loadings for reflective constructs were tested to exceed a cutoff value of 0.5 (Fahmi et al., 2021). Table 5.4 shows that all items were loaded on their respective constructs item. The entire item Loadings exceeded the recommended cutoff value of 0.5. The loadings ranged from 0.524 to 0.957, which indicated that more than half of the variance in the observed variable is explained by the constructs. Items with loadings below 0.5 were deleted step by step to achieve significant threshold value of internal consistency of the construct. For reflective scale, items that were deleted might not affect the conceptual meaning of the particular construct as long as it retains adequate internal consistency. This is because the direction of causality flows from construct to items demonstrated the items represent the effects.

Therefore, the items are highly correlated because they are caused by the same underlying construct (Anastasiadou & Zirinoglou, 2020). In this study, the result revealed that the internal consistency of all the constructs was within acceptable range after the items were deleted from the scale. The CR values of ten reflective latent constructs ranged from 0.731 to 0.952 that exceeded the recommended cutoff value of 0.7 (Hair, Black, Babin, & Anderson, 2010). Therefore, all constructs showed high level of internal consistency reliability.

1.8.2 Convergent Validity

To assess convergent validity, the average variance extracted (AVE) was determined. Table 4.6 exhibits the convergent validity, which revealed that the AVE values of all latent constructs were greater than the acceptable threshold of 0.5 and the values were in the range of 0.517 and 0.868. The AVE value greater than 0.5 specified that the latent construct explained more than half of the variance of its indicators. Table 4.6 summarizes the result of the measurement model. The result showed that all 10 main constructs, namely, entrepreneurial orientation, communication and information sharing, compensation, job design, performance appraisal, selection, training, organizational innovation, managerial ties, and organizational performance were valid measures of their respective constructs based on their parameter estimates and statistical significance (Francisco, Martinez, Terrazas, Ribeiro, & Yamaguti, 2020). Hence, the model constructs had sufficient convergent validity

Table 7:

	Cronbach's Alpha	rho_A	Composite Reliability	Average (AVE)
Behavioral intentions to use VR	0.775	0.821	0.864	0.68
Enjoy, Imm,usefull,Vr	0.92	0.926	0.931	0.511
Moderating Effect 1	1	1	1	1
Perceived value	0.672	0.69	0.806	0.515
Sensation seeking	0.868	0.888	0.908	0.712
VRT-Mod	0.883	0.894	0.919	0.738
complex. cost,ppr	0.915	0.925	0.929	0.594

This table shows the reliability and validity of all variables is acceptable except the perceived value's Cronbach's alpha and rho A.

1.9 Heterotrait-Monotrait Ratio

A study by Henseler, Ringle, and Sarstedt (2015) introduced a new criterion to evaluate discriminant validity for variance-based structural equation modeling. They agreed that the Fornell-Larcker criterion and cross-loadings are the major approaches to assess the discriminant validity for variance-based structural equation modeling. Besides this, they argued that these approaches had not detected the lack of discriminant validity in various research situations. Therefore, Henseler et al. (2015) proposed an alternative approach, "the heterotrait-monotrait ratio of correlations", which is based on the "multitrait-multimethod matrix" to assess the discriminant validity. There are various studies that also used the HTMT ratio to assess the discriminant validity and also recommended the use of this approach to evaluate the discriminant validity(Ab Hamid, Sami, & Sidek, 2017; Ali, Rasoolimanesh, Sarstedt, Ringle, & Ryu, 2018; Haider, Jabeen, & Ahmad, 2018; Henseler et al., 2015; Hussein & Baharudin, 2017; Janadari, Sri Ramalu, & Wei, 2016).

There are two ways to evaluate discriminant validity by using the HTMT ratio; the first one is as a criterion and the second one is as a statistical test (Henseler et al., 2015). In the first approach, the HTMT ratio should be less than 0.85 (Clark & Watson, 1995; Kline, 2011) or it should be less than 0.90 (Gold, Malhotra, & Segars, 2001). When the HTMT ratio is higher than the above-mentioned thresholds, there is a problem of discriminant validity. The second one is to test the null hypothesis (H0: HTMT $\geq$ 1) against the alternative hypothesis (H1: HTMT < 1) and if the confidence interval encompasses value one, this indicates the lack of discriminant validity (Henseler et al., 2015). This study used the first criterion approach to assess the discriminant validity using the HTMT ratio.

Table 8:

	Behavioral intentions to use VR	Enjoy, Imm,usefull,Vr	Moderating Effect 1	Perceived value	Sensation seeking	VRT-Mod	complex. cost,ppr
Behavioral intentions to use VR							
Enjoy, Imm,usefull,Vr	0.702						
Moderating Effect 1	0.064	0.121					
Perceived value	0.615	0.622	0.062				
Sensation seeking	0.621	0.664	0.027	0.538			
VRT-Mod	0.678	0.569	0.087	0.475	0.631		

complex. cost,ppr	0.772	0.622	0.138	0.604	0.61	0.381

This table shows the HTMT ratio for all variables and their relationship with each other. All variables show positive ratio ranging from 0.381 to 0.772. Perceived complexity shows maximum HTMT ratio with behavioral intentions and it shows minimum HTMT ratio with VRT mode.

1.10 Multicollinearity

The presence of multicollinearity among predictors could increase the standard errors of the coefficients (Tabachnick & Fidell, 2007) and, it could also affect the regression coefficients and statistical significance tests (Hair, J. F. J., Black, Babin, Anderson, & Tatham, 2006). Therefore, it was crucial to assess the multicollinearity before the assessment of the proposed model. Table 4.5 reveals that the VIF values for all the predictors were less than 5, as suggested by Hair, J. F., Ringle, and Sarstedt (2011); so, it could be said that there was no issue regarding multicollinearity.

Table 9:

	VIF
B.I1	1.921
B.I2	1.985
B.I3	1.346
P.E1	2.317
P.E2	2.734
P.E3	2.445
P.Use1	3.001
P.Use2	3.987
P.Use3	4.018
P.Use4	3.366
P.V1	1.652
P.V2	1.249
P.V3	1.675
P.V4	1.181
P.complex1	3.025
P.complex2	3.7
P.complex3	3.606
P.cost1	3.092
P.cost2	3.718
P.cost3	2.528
P.im1	2.448
P.im2	2.514
P.im3	1.967
PPR1	3.918
PPR2	2.721
PPR3	2.76
Perceived value * VRT-Mod	1
SS1	2.954
SS2	1.995
SS3	2.643
SS4	2.209
V.R1	2.572
V.R2	2.866
V.R3	2.987

VRT1	2.852
VRT2	2.275
VRT3	1.927
VRT4	2.612

This tables shows the positive VIF results for all variables and the positive moderating effect too.

1.11 **Assessment of Structural Model (SEM)**

Once the goodness of the measurement model had been established, the next step was to test the hypotheses. By running PLS-SEM algorithm and bootstrapping, the assessment of the structural model was performed (Xiao, Pan, Mou, & Huang, 2020). First, the predictive power of the structural model was evaluated by the coefficient of determination (*R*2 values) of the endogenous construct (Chin, 2010; Henseler et al., 2009) and the level and significance of the path coefficient was determined (Hair, Hult et al., 2014). Table 4.1 illustrates *R*2 of each endogenous latent variable of this study.

1.12 Direct relationship path analysis:

According to (Buldur & Güvendi, 2020), the paths that are non-significant or showing signs the Opposite direction to the hypothesized do not support prior hypotheses, while significant paths empirically support the proposed causal relationship. Before the mediating effect was tested, bootstrapping with a resample of 500 was run to get the t-value in order to assess if the direct relationships were significant. Detailed results are as follows:

Table 10:

	Behavioral intentions	Enjoyment, Immersion, and usefulness	Moderating Effect 1	Perceived value	Sensation seeking	VRT-Mod	Complexity, and cost
Behavioral intentions	0.244						
Enjoyment, Immersion, and usefulness				0.302			
Moderating Effect 1	-0.082						
Perceived value	0.244						
Sensation seeking	0.249						
VRT-Mod	0.366			0.096			
Complexity, and cost				0.27			

The table 10 shows that behavioral intentions, perceived value, sensation seeking, and VRT mode shows a positive relation with respect to the behavioral intentions where behavioral intentions are 0.244, perceived value is also 0.244, sensation seeking is 0.249 and VRT mode is 0.366. On the other hand, complexity and VRT mode shows positive relation with respect to perceived value where VRT mode is 0.096 and complexity is 0.27. All of these variables show positive results. While the moderating effect is negative with respect to behavioral intentions valued as -0.082.

H1. Perceived value of VR technology has a positive effect on theintention to use VR.
Result from the output of the algorithm and bootstrapping PLS-SEM showed a positive
And significant association between Perceived value and theintention to use VR. Hence H1 is supported.

H2. Perceived usefulness of VR technology has a positive effect onperceived value.
Result from the output of the algorithm and bootstrapping PLS-SEM showed a positive
And significant association between Perceived usefulness and perceived value. Hence H2 is supported.

H3. Perceived enjoyment in using VR technology has a positive effecton the perceived value.
Result from the output of the algorithm and bootstrapping PLS-SEM showed a positive
And significant association between Perceived enjoyment and perceived value. Hence H3 is supported.

H4. Perceived cost of using VR technology has a negative influence on perceived value.
A forth hypothesis was failed to receive empirical support and was rejected between the perceived cost and perceived value was found. Hence H4 is not supported.

H5. Perceived physical risk in using VR technology has a negativeinfluence on perceived value.

1.13 Testing the mediating effect:

Table: 11 indirect effects:

	Behavioral intentions to use VR	Enjoy, Imm,usefull,Vr	Moderating Effect 1	Perceived value	Sensation seeking	VRT-Mod	complex. cost,ppr
Behavioral intentions to use VR							
Enjoy, Imm,usefull,Vr	0.074						
Moderating Effect 1							
Perceived value							
Sensation seeking							
VRT-Mod	0.023						
Complex. cost,ppr	0.066						

1.14 Total effect:

Table 12:

	Behavioral intentions to use VR	Enjoy, Imm,usefull,Vr	Moderating Effect 1	Perceived value	Sensation seeking	VRT-Mod	complex. cost,ppr
Behavioral intentions to use VR							
Enjoy, Imm,usefull,Vr	0.074			0.302			
Moderating Effect 1	-0.082						
Perceived value	0.244						
Sensation seeking	0.249						
VRT-Mod	0.389			0.096			
complex. cost,ppr	0.066			0.27			

Total effect with respect to the hypothesis discussed above in table 10 and table 11 is combining mentioned in table 12 above.

Discussion

Psychological sacrifices have already been found as a key influencing element in the adoption of riot and mobile services (ATSIZ, 2021). As a result, this study, like prior research, regards perceived cost as a financial sacrifice, perceived complexity, and perceived physical harm as non-monetary sacrifices. Second, the perceived benefits have a more substantial influence on perceived value than perceived sacrifices. The dimensions (perceived enjoyment, perceived usefulness, and perceived immersion) forming perceived benefits were found to be significant and have a positive impact on perceived value. Third, it is worth noting that the perceived cost has no effect on the perceived value of utilizing VR. The availability of low-cost VR equipment might be one of the reasons. The findings might be attributed to consumers' concerns that using VR may affect their health (e.g, eye strain and headache). Furthermore, perceived difficulty in the use of VR has a considerable impact on perceived value. It suggests that customers consider the use of VR to be a time-consuming task. Fourth, the data suggest that sensation-seeking behavior has a favorable influence on VR adoption intention, which contradicts (Pestek & Sarvan, 2020) . This is because customers regarded the usage of VR to be distinctive and intriguing. They will be more likely to embrace VR for the purpose of experiencing a tour location. In comparison to previous technologies, the audio-video material assists them in selecting a location (Yung et al., 2021). Fifth, the study examined the influence of gender disparities at the model level and discovered that it was minor. It suggests that both men and women have the same desire to use VR. The preceding discovery contradicts previous literature.

Conclusion

The technical thrust for VR experiences, as seen by the development of VR platforms and devices for personal use, suggests that there is enormous potential for mainstream consumption of VR tourist material. Making strategic investment decisions to harness VR technology to impact consumer travel preferences presents

challenges for destination marketers and management (Bec, Moyle, Schaffer, & Timms, 2021). This advancement also raises research questions about the usefulness of virtual reality in altering consumer sentiments about tourism locations. To address these issues, this study analyses spatial presence in the VR experience, this includes a virtual Tour of genuine tourism places utilizing personal devices (smartphones). This implies that, regardless of spatial ability, in order for VR users to attain increased spatial presence, it is critical to minimize any distractions that might prevent users from dedicating adequate attention to objects or events in the VR environment. These diversions might be caused by the content (for example, fading things as users walk forward), or by the user experience. This study contributes to a deeper understanding of spatial presence, its drivers, and the effects on user perceptions in experiences that include renderings of genuine tourism sites. This study adds empirical evidence to the literature indicating the potential role of virtual reality (VR) in tourist marketing and management.

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