ANALYSİS OF COGNİTİVE RESPONSES AND AFFECTİVE RESPONSES İN VİRTUAL REALİTY TOURİSM: A FOCUS ON MOSQUE VİSİTS AMONG MUSLİMS

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ABSTRACT: *The surge in Muslim travelers and the swift growth of virtual reality technology are transforming the global tourism industry. This convergence emphasizes the urgent necessity for in-depth academic inquiry into virtual reality's role in Muslim tourism, providing fertile ground for future research. Consequently, this study focuses on investigating the influence of authentic experiences. The primary objective of this study is to investigate the influence of cognitive and affective responses on intention to visit mosques. The research methodology is quantitative, encompassing 100 Muslim respondents. Data analysis was conducted using the IBM Statistical Package for Social Science (SPSS), encompassing descriptive, Pearson correlation, and regression analyses. This study reveals that cognitive and affective responses experienced through virtual reality significantly impact the decision-making of Muslim tourists when considering visits to mosques in the future. This study holds substantial implications for understanding cognitive and affective responses in relation to the intention to visit mosques within the tourism context, with the potential to influence the future of mosque tourism.*

Keywords: Mosque tourism, Virtual Reality, Cognitive response.

1. INTRODUCTION

The rising influence of Muslim tourists represents a new and impactful category in the global tourism industry [5]. One of the nascent forms of tourism experiences gaining traction among Muslims is virtual reality (VR). The exponential growth of virtual reality technology in recent years has opened up new avenues for research and innovation across multiple sectors [9]. The halal tourism industry is no exception, as virtual reality's potential to enhance the travel experience and provide innovative marketing opportunities for tourism-related products and services has been recognized [14]. VR technology, which has seen a surge in popularity, holds significant potential to revolutionize the tourism industry. Leung, Zulkernine & Isah [12] conducted a comprehensive study, recognizing VR for its educational effectiveness and its ability to disseminate new knowledge, particularly in education and research. Mosque tourism represents another emerging trend that resonates with tourist inclinations toward cultural immersion and unique travel experiences. This convergence highlights a promising avenue for scholarly investigation and innovation within the tourism industry, accommodating the evolving preferences and expectations of travelers. While virtual reality (VR) is an advancing technology within the tourism industry, limited research has been undertaken to explore the factors influencing consumers' decisions to visit destinations presented through VR [3]. Therefore, this study is designed to investigate the influence of cognitive response and affective response on virtual reality intention in visiting mosques.

Muar royal town Johor

The interplay between cognitive and affective factors in visit intention is crucial for understanding tourists' decision-making. Baloglu & McCleary [17] demonstrated that cognitive factors, encompassing destination knowledge and beliefs, precede affective components, shaping perceptions. Qu & Im [16] emphasized the impact of cognitive, affective, and unique dimensions on repeat visits and recommendations. Recent studies highlight the fixed linear relationship between cognition, emotion, and the overall image of tourist destinations [21], with the affective component significantly influencing the destination's overall image.

Cognitive and affective components of visit intention are influenced by diverse factors, including tourists' destination choices, characteristics, travel habits, and information sources. Baloglu & McCleary [17] found that cognitive destination image components influence affective perceptions and visitation intentions, with affective image directly impacting visitation intentions. Beerli & Martin [15] extended this by comparing first-time and repeat visitors, exploring the interrelationship between cognitive and affective destination image perceptions.

The existing literature on virtual reality and tourism aligns with these findings, underscoring a significant relationship between cognitive and affective responses and visit intention. This comprehensive understanding contributes to unraveling the complexities of tourists' decision-making processes.

2. METHODOLOGY

This study adopts a quantitative approach, characterized by a larger sample size and expedited data collection. While this method may capture data at a more surface level, potentially overlooking emotional nuances [6], it aids in establishing baseline information and mitigating elitist bias during the data gathering stage. Quantitative analysis enhances the generalizability of qualitative findings and brings new insights [18].

The study assesses the adequacy of a 100-response sample size among Muslim tourists for data analysis. Adequacy, as per Kvale and Brinkmann, involves judgment and experience in evaluating information quality [19]. Smaller sample sizes can suffice if the data is extensive and informative. Comrey and Lee consider a sample size of up to 100 respondents as weak but still capable of providing useful insights in data analysis [18]. Thus, this study acknowledges the potential adequacy of a smaller sample size, given its comprehensive and informative nature.

3. FINDINGS

The data analysis in this part aims to identify Muslim tourists' authentic experiences with virtual reality mosque tourism. The description is based on percentage mean values for each item that is underlying each specified variable.

Table 1: The percentages for the authentic experience

Items	Mean	Std. Deviation
Using the 360-degree VR Mosque Tour provide me with authentic experience.	**5.13**	**.789**
Using the 360-degree VR Mosque Tour provide me with genuine experience	**5.14**	**.846**
Using the 360-degree VR Mosque Tour provide me with exceptional experience	**4.89**	**.818**
Using the 360-degree VR Mosque Tour provide me with unique experience	**5.19**	**.789**
Using the 360-degree VR Mosque Tour provide me with interactive experience	**5.21**	**.862**

In accordance with the data presented in Table 1, it shows the mean value and standard deviation for each item under authentic experience. The item "using the 360-degree VR Mosque Tour provides me with an interactive experience" was recorded as the highest with a mean of 5.21. Subsequently, the item pertaining to "using the 360-degree VR Mosque Tour provides me with a unique experience" ranks second, with a mean score of 5.19. Additionally, both items signifying "using the 360-degree VR Mosque Tour provides me with genuine experience" and "using the 360-degree VR Mosque Tour provides me with authentic experience" have garnered mean scores of 5.14 and 5.13, respectively. Lastly, it is discernible from the table that the item "using the 360-degree VR Mosque Tour provides me with an exceptional experience" exhibits the lowest mean score of 4.89. It can be seen that using the 360-degree VR Mosque Tour can provide tourists with an interactive experience.

Table 2: The Pearson Correlation between variables

Variable	Sig. (2-tailed)	R Value	Rank
Authentic Experience X Intention to visit Mosque	.000**	0.868	High
Cognitive Response X Intention to visit Mosque	.000**	0.784	High
Affective Response X Intention to visit Mosque	.000**	0.893	High

**. Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation analysis revealed a robust positive correlation (r (100) $>.893$, $p <.001$) between authentic experience, affective response, cognitive response, and intention to visit the mosque. This indicates a significant linear relationship between all independent variables and the dependent variable, suggesting that authentic experience, affective response, and cognitive response collectively influence the intention of Muslim tourists to visit mosques.

The R-square, a valuable predictive measure, illustrates the extent to which the dependent variable varies due to its relationship with the independent variables [23]. A perfect R-square of 1 indicates that the independent variables explain 100% of the dependent variable. In Table 4, the model summary reveals a correlation between affective response, cognitive response, and intention to visit a mosque, resulting in an R-square of 0.806, or 80.6%. This suggests that 80.6% of the variation in the intention to visit mosques can be attributed to the combined influence of affective and cognitive responses.

Table 3: ANOVAª

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	79.239	2	39.620	201.701	.000ᵇ
	Residual	19.053	97	.196		
	Total	98.292	99			

a. Dependent Variable: Intention to visit Mosque
b. Predictors: (Constant), Affective Response, Cognitive Response

A simple linear regression was conducted to predict respondents' intention to visit the mosque based on their affective and cognitive responses. The analysis revealed a significant regression equation (F (2,99) = 201.701, $p < 0.001$). In Table 3, the p-value of 0.000, which is less than 0.05, signifies a significant linear regression between the independent variables and the dependent variable. This result indicates a meaningful predictive relationship between affective and cognitive responses and respondents' intention to visit the mosque.

Table 4: Coefficients Affective Response, Cognitive Response and Intention to visit Mosque

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.095	.253		.377	.707
	Cognitive Response	.179	.087	.160	2.059	.042
	Affective Response	.794	.081	.762	9.795	.000

a. Dependent Variable: Intention to visit Mosque

Table 4 shows that in terms of standardized coefficients (beta values), affective response has the most substantial influence on intention to visit mosque, with a coefficient of B = 0.794 and $p<0.05$ (0.000). The second most significant influence is cognitive response, with a coefficient of B = 0.179 and $p<0.05$ (0.01). These findings underscore the pronounced impact of affective responses, followed by cognitive responses, on the intention of visiting a mosque.

4. CONCLUSION

The results obtained from the survey on the VR Mosque Tour indicate that a majority of Muslim tourists expressed agreement with the utilization of the 360-degree VR Mosque Tour, finding it to offer an interactive experience. Furthermore, this study reveals that cognitive and affective responses experienced through virtual reality significantly influence the decision-making of Muslim tourists when considering future visits to mosques. The study suggests that cognitive and affective responses in virtual reality play a crucial role in shaping Muslim tourists' decisions to visit mosques. Therefore, respected authorities and the industrial sector can seize this opportunity to utilize virtual reality to promote mosque tourism in Malaysia.

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