

The Impact of Virtual Reality Technology Characteristics on Purchase Intention in Luxury Fashion amidst Millennials in Thailand



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ABSTRACT: Using virtual reality (VR) technologies has allowed bridging the gap between brand engagement and consumer experiences. Commonly, the factors that has a significant impact on consumer engagement tend to include autonomy, rewards, absorption, competition factors; which is expected to boost millennials use of VR technology. In this study, the scholar aims to investigate the impact of these factors of VR technology of millennial's purchasing behaviour, particularly luxury fashion purchasing behaviour. This study employs the use of a quantitative approach in performing the research. A close-ended questionnaire was designed and distributed to collect data from a total of 200 sample respondents. The data were validated and missing data were removed with the final data being 200 sample. Our findings revealed that variables including autonomy, absorption, competition, and consumer enjoyment has a positive significant impact on the intention to purchase luxury products amidst consumers. This study's methodology has methodically outlined how to assist customers in having fun and making their online purchasing more enjoyable which influences their purchase intention.

KEYWORDS: Virtual Reality (VR), Purchasing Intention, Luxury Fashion, Millennials, Thailand

I. INTRODUCTION

A. Background, Aims, and Objectives of Study

The COVID-19 pandemic environment has led to a *hard reset* on the consumer behaviour. Common patterns indicated by the study of Achille & Zesper (2020), Zhao & Kwan (2021), and Rosenbaum & Caminiti (2020) indicated that; consumers have led to significant transformation on how consumers are influenced by different marketing technologies. Amidst many of the selected technology, one of such is the use of Virtual Reality (VR) technology. The use of VR technology in the field of marketing is growing, as competitions between luxury fashion brands are aggressively rising. Identifying the current consumer trends, there are three research problem recognized in this paper. These research problems are stated as follows:

- The rise of the virtual technologies in the current market stands as a key opportunity for gamifying the experience of the consumers and persuading engagement (via the means of enjoyment and entertainment).
- Statistics by Statista (2021) reports the compound annual growth rate (CAGR) of 5.21%. The rise in the luxury industry of 5.21% over 2021-2025 indicates the rise and saturation in the industry. This brings in the need for luxury brands to create new and innovative technologies to integrate with marketing techniques and gain competitive advantage.
- Millennials in Thailand comprise of the largest group of population in Thailand, with a steady growth of purchasing power (Tongwaranan, 2019). Furthermore, Banchongduang (2019) reports that millennials spend over 13% of the country's GDP in shopping the must-have items, and not accounting for the luxury spending. This provides the scope of the research, that is, the millennials of Thailand.

This paper attempts to answer – “*To what degree does virtual technology characteristics influence the millennial's intent to purchase luxury fashion?*”. In answering the research question, the research aims to investigate the role of virtual technology characteristics, namely autonomy, rewards, absorption, and competition on the intention of millennial generation to purchase luxury fashion products in Thailand. Furthermore, the following objectives are designed for this study:

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- To investigate the role of virtual technology (autonomy, rewards, absorption, and competition), on the perceived enjoyment of millennials
- To investigate the relationship between perceived enjoyment and online purchasing intention,
- To study factors that enable to increase the consumers' purchase intention on luxury fashion products.
- To compared the purchasing intention of luxury products using virtual technologies based on unique demographic characteristics.

B. RESEARCH HYPOTHESES

- H1 Autonomy of virtual technologies have a positive influence on perceived enjoyment of millennials.
- H2 Rewards of virtual technologies have a positive influence on perceived enjoyment of millennials.
- H3 Absorption of virtual technologies have a positive influence on perceived enjoyment of millennials.
- H4 Competition of virtual technologies have a positive influence on perceived enjoyment of millennials.
- H5 Perceived enjoyment received from virtual technologies has a positive influence on the online purchasing intention of millennials in Thailand.

II. LITERATURE REVIEW

A. Theoretical Overview

Theoretically, the study by Kelana et al., (2017) indicated that, age-group (generational differences) has a significant impact on the differences in the consumption patterns of the consumers. More specifically, research papers have idealized and indicated that, age-attributed differences have a significant impact on how consumers perceive difference in their consumption behaviour. This is ever-truer in the context of consumer behaviour, which is associated with luxury branding purchase. As marketers have evolved with new technologies; like the use of VR technology, they have been capable of triggering and directly influencing the psychological thought process of the consumers (Shi et al., 2017; Chae et al., 2011; Xu et al., 2020). As such, it can be expected that, psychological input experienced from virtual reality technology can directly influence the consumption patterns of the consumers. Some of the common factors influencing consumers behavioural patterns include; but are not limited to, (a) autonomy, (b) rewards, (c) competition, and (d) Enjoyment. The hypotheses on the relationship is further presented as follows.

B. Hypotheses Development

According to a study conducted by Hutiniemi et al., (2019), online shopping is becoming more like a process that involves technology. In 2020, another study conducted by Xu et al., (2020) that customers are more likely to prefer to keep their purchases private rather than having the opportunity to visit a physical store. According to the respondents, they prefer to conduct online shopping due to how they don't have to deal with the details of the purchase, such as the price and the person who paid for it. Autonomy is also cited as a contributing factor to the increase in consumer motivation to make a purchase. Hence, it can be stated that, a higher degree of autonomy leads to a positive impact on perceived enjoyment experienced from VR.

The concept of virtual technology is that consumers get rewards for using it. This is true not only with virtual technology but also with other forms of technology. The Technology Acceptance Model states that people tend to use technology more if they feel motivated to do so. The use of virtual technology for shopping can provide consumers with various rewards, such as the reduction of time and energy consumption. This is because it allows them to make their purchases without having to go to the physical store. According to Clark et al., (2019), the sense of accomplishment that a customer gets from shopping through a direct approach is greatly enjoyed by them. Hence, it can be stated that, a higher degree of rewards perceived leads to a positive impact on perceived enjoyment experienced from VR.

Virtual technology can be very absorbing, as customers tend to keep using it even when they don't have a purchase intention. This is because it can keep them engaged. A study conducted by Wu et a., (2018) revealed that people spend over an hour a day looking at products on Amazon.com even though they have no intention of buying anything. Hence, a higher degree of absorption in virtual reality technology leads to a positive impact on perceived enjoyment experienced from VR.

Due to the increasing number of companies operating in the online space, the competition in the virtual technology market is very fierce. Every company is trying to integrate new technology into their operations to gain an advantage. In 2017, Breemersh et al., (2017) revealed that the major tech companies such as Google, Amazon, and Facebook are constantly trying to develop and integrate new virtual technology into their platforms. New technology is often integrated into the mix with higher

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competition. This new technology helps the consumer get absorbed into the gadget and its benefits. According to a study conducted by Yoon et al., (2021) indicated that, this formula works for most companies as it allows them to interact with their customers in a more effective manner. Hence, a higher degree of competition leads to a positive impact on perceived enjoyment experienced from VR.

C. Conceptual Framework

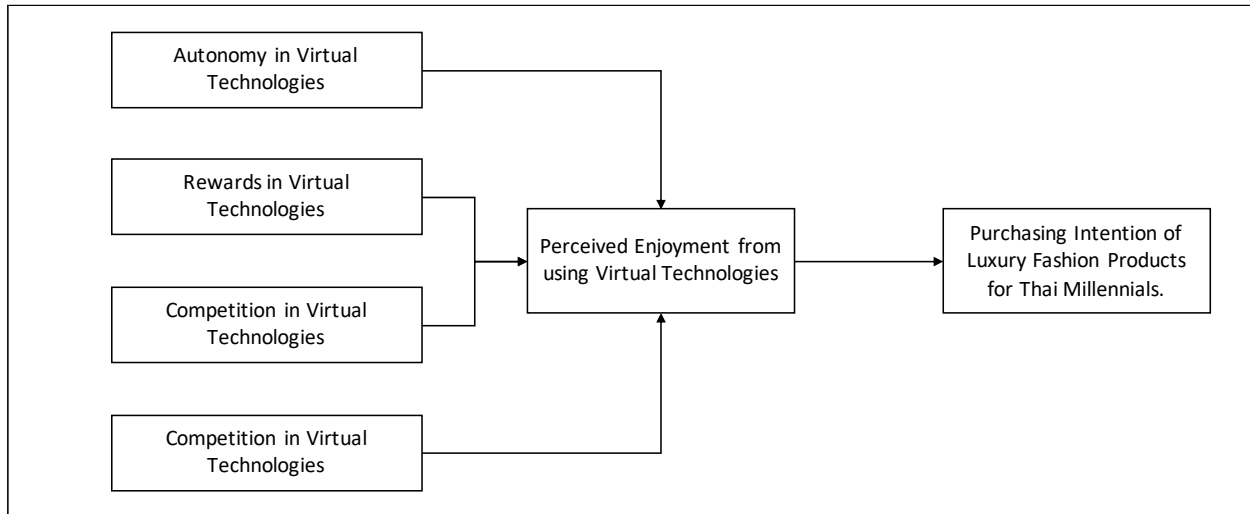


Figure 1: Conceptual Framework

III. METHODOLOGY

A. Research Design

In this study, the scholar has adopted the use of a quantitative approach of analysis. More specifically, this research paper has focused on using a scientific approach of developing and analysing the relationship between virtual reality (VR) technology and the purchasing behaviour of millennials in Thailand. A deductive approach has been implemented in this paper. A total of 5 hypotheses has been developed and tested across the research. The hypotheses tested in this study include the following:

- H1 Autonomy of virtual technologies have a positive influence on perceived enjoyment of millennials.
- H2 Rewards of virtual technologies have a positive influence on perceived enjoyment of millennials.
- H3 Absorption of virtual technologies have a positive influence on perceived enjoyment of millennials.
- H4 Competition of virtual technologies have a positive influence on perceived enjoyment of millennials.
- H5 Perceived enjoyment received from virtual technologies has a positive influence on the online purchasing intention of millennials in Thailand.

B. Research Instrument and Sample Size

The quantitative research instrument adopted in this study is presented as follows.

Table 1: Research Instrument of the Research

Variable Name	Statement	References
Autonomy in Virtual Technologies	I feel free to decide what to do for myself when using VR technologies.	Jang et al., (2009)
	I feel that my choices are based on my true interests and values when using VR technologies.	
	I feel free to do things on my own way when using VR technologies.	
Rewards in Virtual Technologies	When I participate in knowledge sharing activities in VR technologies:	Kankanhalli et al., (2005)
	I try to get more points as a reward for my activities.	
	I try to have a higher status as a reward for my activities	
Absorption in Virtual	When using virtual technologies: I forget everything else around me.	Schaufeli et al.,
	When using virtual technologies: Time flies	

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Technologies	When using virtual technologies: I get carried away	(2002)
	When using virtual technologies: I am immersed.	
Competition in Virtual Technologies	When using virtual technologies for shopping: Activities of other participants are threats to my status.	Ma & Agrawal (2007)
	When using virtual technologies for shopping: I am facing intense competition	
	When using virtual technologies for shopping: Competition among shoppers is fierce.	
Perceived Enjoyment	I found shopping via virtual technologies to be: Interesting	Schaufeli et al., (2002)
	I found shopping via virtual technologies to be: Exciting	
	I found shopping via virtual technologies to be: Fun	

C. Analytical Approach

The data collected from this study were analysed using quantitative analysis tools, such as MS Excel and SPSS. The first step was to perform a regression analysis to assess the relationship between the virtual reality technology's characteristics and the perceived enjoyment. Then, a correlation analysis was performed to identify a relationship between the purchasing intention and the perceived engagement.

IV. FINDINGS AND DISCUSSION

In this study, a total of 365 data was used, whereby, a total of 98.1% of them were male, 78.4% were employed in the private firm, 51.5% were in an unmarried relationship. The remaining data belong to the other remaining demographics of the research study. The results of the hypotheses testing are further presented as follows.

Table 2: Correlations Analysis

Correlations		AUT	REW	ABS	COMP	PENJ	PI
AUT	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	365					
REW	Pearson Correlation	.867**	1				
	Sig. (2-tailed)	.000					
	N	365	365				
ABS	Pearson Correlation	.780**	.844**	1			
	Sig. (2-tailed)	.000	.000				
	N	365	365	365			
COMP	Pearson Correlation	.777**	.780**	.802**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	365	365	365	365		
PENJ	Pearson Correlation	.774**	.790**	.786**	.815**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	365	365	365	365	365	
PI	Pearson Correlation	.740**	.719**	.743**	.737**	.731**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	365	365	365	365	365	365

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

The results of the correlation analysis revealed that the various variables were significantly correlated. To perform the analysis, the scholar required a significance level of 5%, and applied a standard deviation of 5%. It was revealed that the correlations between the variables were over 70%. The results of the correlation analysis revealed that virtual reality's characteristics such as autonomy, rewards, competition, and absorption had a positive and significant influence on perceived enjoyment.

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Table 3: Regression Analysis

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.805 ^a	.647	.643	.232802593498590		
a. Predictors: (Constant), PENJ, AUT, ABS, COMP, REW						
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	35.738	5	7.148	131.883	.000 ^b
	Residual	19.457	359	.054		
	Total	55.195	364			
a. Dependent Variable: PI						
b. Predictors: (Constant), PENJ, AUT, ABS, COMP, REW						
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.112	.057		1.967	.050
	AUT	.302	.074	.274	4.079	.000
	REW	-.030	.081	-.028	-.376	.707
	ABS	.266	.069	.255	3.876	.000
	COMP	.204	.068	.190	3.027	.003
	PENJ	.185	.061	.186	3.025	.003
a. Dependent Variable: PI						

According to the model summary, the r value of the regression analysis was 0.805 or 80.5%, indicating that the independent variables were able to predict the variability of the dependent variable, namely, purchasing intention. On the other hand, the significance of the data in the ANOVA table was 0.000, which is lower than 0.05. The model is considered to be highly significant. In terms of the hypotheses, it was shown that perceived enjoyment significantly affects the intention to purchase luxury goods. Also, the overall value of the perceived enjoyment factor was lower than 0.05, which shows that it has a positive influence on the purchase intention.

V. CONCLUSION AND RECOMMENDATIONS

A. Summary of the Report

As companies are consistently competing in the digital space, brands are consistently aiming to identify and adopt new strategies to engage with the consumers. One of such many technologies is the use of the virtual reality (VR) technology. In this study, the researcher aimed to investigate the role of virtual technology characteristics, namely autonomy, rewards, absorption, and competition on the intention of millennial generation to purchase luxury fashion products in Thailand. This study adopted the use of a quantitative methodological approach to study how virtual reality characteristics influences millennial’s purchasing intention. SPSS analysis using regression and correlation analysis was performed on 200 sample respondents. The findings of this study indicated that, autonomy, absorption, competition, and consumer enjoyment have a positive significant impact on millennial’s luxury brand purchasing decision.

B. Recommendations and Future Works

The recommendations for the significant parties including marketers and managers of luxury brands in Thailand can be conveyed the following recommendations.

- Firstly, it can be seen that, the autonomy in virtual technologies is the strongest predictor of purchasing intention. It can be stated that, autonomy in virtual technologies can lead to being a strongest predictor for developing positive use of virtual reality.

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- Other factors of increasing purchasing intention through virtual reality technology includes elements like rewards, absorption, and perceived enjoyment through virtual technologies. Considering such, marketers can use this approach to improve the consumers use of virtual reality technology.
- It was also seen that, increase in rewards available in virtual reality technology, and the increase in the competition in virtual reality technology improves the degree of absorption experienced. Considering such, it is imperative to improve the degree of absorption experienced in VR technology.

This study is not without its limitations. However, these limitations can be addressed in the future works of the paper. The future works of the research can include utilizing a mixed-methodology approach that adopts both the quantitative and qualitative methods, focusing on a new generation like Baby Boomer or Generation-Z, and adopting research with new control variables.

REFERENCES

- 1) Achille, A., & Zipsper, D. (2020, April). A perspective for the luxury-goods industry during—and after—coronavirus. Retrieved October 23, 2021, from McKinsey & Company website: <https://www.mckinsey.com/industries/retail/our-insights/a-perspective-for-the-luxury-goods-industry-during-and-after-coronavirus>
- 2) Banchongduang, S., (2019). Bangkok Post. Retrieved October 23, 2021, from <https://www.bangkokpost.com> website: <https://www.bangkokpost.com/business/1802209/millennials-mired-in-shopping-debts>
- 3) Breemersch, K., Damijan, J. P., & Konings, J. (2017). Labour market polarization in advanced countries: impact of global value chains, technology, import competition from China and labour market institutions.
- 4) Chae, S., Choi, T. Y., & Hur, D. (2017). Buyer power and supplier relationship commitment: A cognitive evaluation theory perspective. *Journal of Supply Chain Management*, 53(2), 39-60.
- 5) Clark, F. E., Gray, S. I., Bennett, P., Mason, L. J., & Burgess, K. V. (2019). High-tech and tactile: Cognitive enrichment for zoo-housed gorillas. *Frontiers in psychology*, 10, 1574.
- 6) Huhtiniemi, M., Sääkslahti, A., Watt, A., & Jaakkola, T. (2019). Associations among basic psychological needs, motivation and enjoyment within finnish physical education students. *Journal of sports science & medicine*, 18(2), 239.
- 7) Jang, H., Reeve, J., Ryan, R. M., & Kim, A. (2009). Can self-determination theory explain what underlies the productive, satisfying learning experiences of collectivistically oriented Korean students?. *Journal of educational Psychology*, 101(3), 644.
- 8) Kankanhalli, A., Tan, B. C., & Wei, K. K. (2005). Contributing knowledge to electronic knowledge repositories: An empirical investigation. *MIS quarterly*, 113-143.
- 9) Kelana, B., Riskianto, A., & Hilmawan, D. R. (2017, November). The acceptance of E-payment among Indonesian millennials. In 2017 International Conference on Sustainable Information Engineering and Technology (SIET) (pp. 348-352). IEEE.
- 10) Ma, M., & Agarwal, R. (2007). Through a glass darkly: Information technology design, identity verification, and knowledge contribution in online communities. *Information systems research*, 18(1), 42-67.
- 11) Rosenbaum, E., & Caminiti, S. (2020, September 19). Coronavirus and luxury retail: Shopping for used Hermes, Cartier in Covid era. Retrieved October 23, 2021, from CNBC website: <https://www.cnbc.com/2020/09/19/coronavirus-how-the-pandemic-has-impacted-luxury-retail.html>
- 12) Schaufeli, W. B., Martinez, I. M., Pinto, A. M., Salanova, M., & Bakker, A. B. (2002). Burnout and engagement in university students: A cross-national study. *Journal of cross-cultural psychology*, 33(5), 464-481.
- 13) Shi, W., Connelly, B. L., & Hoskisson, R. E. (2017). External corporate governance and financial fraud: Cognitive evaluation theory insights on agency theory prescriptions. *Strategic Management Journal*, 38(6), 1268-1286.
- 14) Statista (2021). Luxury Fashion - Worldwide | Statista Market Forecast. Retrieved October 23, 2021, from Statista website: <https://www.statista.com/outlook/cmo/luxury-goods/luxury-fashion/worldwide>
- 15) Tongwaranan, T., (2019). Bangkok Post. Retrieved October 23, 2021, from <https://www.bangkokpost.com> website: <https://www.bangkokpost.com/business/1700660/save-or-splurge->
- 16) Xu, Y., Chen, Z., Peng, M. Y. P., & Anser, M. K. (2020). Enhancing consumer online purchase intention through gamification in China: Perspective of cognitive evaluation theory. *Frontiers in Psychology*, 11.

The Impact of Virtual Reality Technology Characteristics on Purchase Intention in Luxury Fashion amidst Millennials in Thailand

- 17) Zhao, S., & Kwan, S. (2021, October 17). Chinese Tourists' Disappearance Is Remaking Hong Kong Retail. Retrieved October 23, 2021, from Bloomberg.com website: <https://www.bloomberg.com/news/articles/2021-10-17/chinese-tourists-disappearance-is-remaking-hong-kong-retail>



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