RELATIONSHIP OF AUGMENTED REALITY MARKETING AND PERCEIVED PRICE ON CONSUMER PURCHASE INTENTION WITH MEDIATING ROLE OF BRAND IMAGE OF SHOPEE MALAYSIA

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Abstract

There were contradictory findings where augmented reality brings enjoyable and playful elements to marketing but not necessary an effective tool for brand interaction and further investigation was required to minimize the gap. In contrast price was considered significant when judging the overall benefits when buying products in consumer's decision-making process. The research attempt to review the effectiveness of Augmented reality technology as an innovative approach to market products and services and the impact of price in online shopping. To investigate the effects of augmented reality marketing on consumer purchase intention; to investigate the effects of perceived price on consumer purchase intention and to investigate the interaction effects of brand image on augmented reality marketing and perceived price towards consumer purchase intention. The study was conducted in Malaysia using online survey with a convenient sample of 250 Shopee respondents for a period of 4 weeks in Mid 2021– a pilot study was conducted prior the actual survey to test the validity and reliability of the research instrument. The data collection was obtained through survey monkey online, Facebook and Whatsapp. Data analysis was conducted with the help of SPSS AMOS and Structural Equation Modeling with the aid of Path Diagrams. The study confirmed that both augmented reality marketing and price have a significant impact on brand image and purchase intention. In addition, it was also proven that there are positive interaction effects between brand image on both augmented reality marketing and perceived price towards customer purchase intention. The study found that augmented reality marketing does have a significant impact on brand image and consumer purchasing intention. The correlations analysis indicates that embedding augmented reality technology in Shopee's mobile application would improve customer's enjoyment, feeling and motivation towards Shopee, which subsequently form a greater level of cognitive thinking, affection and activation on the brand. The outcome of the study was similar to previous studies - however what was new from the study was the study took on a case study approach using a popular online store like Shopee to study the impact of augmented reality marketing and the confirmation of augmented reality does have a significant impact on purchase intention.

Keywords

Augmented Reality Marketing, Perceived Price Value, Brand Image, Consumer Purchase Intention

Introduction

The COVID-19 pandemic spread rapidly has awakened businesses and emerged as a game-changer towards digital transformations to effectively markets their products and services (Ernst & Young, 2020).

In order to stay competitive in business and economic environment, companies have to change their strategies and best practices (Daniella, 2020). As internet users and literacy levels increased, advertisers and consumers have shifted away from traditional channels towards digital channels (Singh & Pandey, 2014). Most companies in every industry, such as automotive telecom, healthcare, retail, and industrial product (Curran et al., 2017) have steadily increased their technology expenses to stay relevant in the market. According to Grewal et al., 2020, innovation built around the Internet of Things (IoT), augmented reality (AR), and artificial intelligence (AI) intensify competition in today's market.

According to Javornik (2016) augmented reality enhanced visual recognition and emotional attachment more than conventional advertising. It allowed consumers to experience virtual products or services arranged in a physical environment. Augmented reality solutions engaged consumers, save their time, and simplify the purchasing process. The brochure would become a virtual shop easily accessed from anywhere and which indirectly help to shorten the sale cycle when consumers receive virtual sale assistant (Watson et al., 2018).

By leveraging the power of augmented reality would reinforce brand image and effectively engage target audiences. As a result, companies like IKEA, Lacoste, Tesco, MTV, Cadbury, and Converse, have adopted an augmented reality framework and significantly improve their marketing efforts to earn higher revenue (Bilgili & Aydin, 2019).In order to drive business and sustained sales many of these companies had intensified their effort to market their products and services online using augmented reality to enhanced the visibility of products and services to ease the decision-making process. Customers no longer have the luxury to visit these stores during the early days of pandemic where customers faced lockdown and restricted movement.

In contrast, pricing is the one variable a business can change overnight and immediately affects revenues and profits. However, pricing decisions inconsistent with a firm's competitive strategy can be dangerous, which is why companies should address the topic with much caution and attention (Indounas, 2018). According to Djatmiko & Pradana (2016), price is a factor determined by the interaction between demand and supply in the factor of production. The price decision depends on a series of environmental forces and competition that were very complicated and it became critical during the COVID19 pandemic when customers were restricted from going out to

the store to select their goods and services. Most shoppers had to get their regular supplies online due to the lockdown during the pandemic.

According to Erdil (2015), price is considered an important determinant factor in consumer decision-making. It is commonly observed that some customers would choose a product based on pricing, while others believe the price factor does have equal weightage on product quality (Beneke & Carter, 2015). Perceived price was generally positioned as a primary consideration in the decision-making process. If the product price was perceived as fair, fixed, and relative (Albari, 2018), there was a high likelihood for the consumer to purchase (Chiang & Jang, 2007). It was crucial to recognized that during the early days of COVID19 pandemic, pricing of goods and services sky-rocketed due to shortage of supply as many suppliers encountered logistics issues in delivering their products to the end users. Subsequently customers shifted their purchase online and most customers optimized their spending by comparing the prices of goods and services offered by the online vendors.

The study also emphasized on the importance of brand image. A brand is a potent business tool, another way to describe a brand is the business's personality. The right brand could attract more potential consumers and helps the business stand out from competitors (Tasci, 2021). It does this by telling consumers about the business "*brand identity*", who they are ", *brand meaning*", and its nature. The aspect of the brand will often be the first contact of consumers with the business, i.e., judgements or feeling "*brand response*". It is not limited to listing out products and services offered (Diego & Guzman, 2020; Dwivedi et al., 2019). It explains the benefits of those products and services, communicates the value, and improves their lives by simplifying the whole experience "*resonance*" (Ande et al., 2017). As a result, it builds long-term relationships with loyal consumers.

In the last decade, various studies have determined the effect of brand image on online purchase. D. Kim et al. (2018) stated that online shopping proved to have a strong relationship with a brand. Unconsciously, they are involved in the success and failures of the brand (Diego & Guzman, 2020). It was found that those highly involved in online purchases tend to have an optimistic attitude toward a specific brand (Wirtz et al., 2013). A large body of evidence suggests that brand image stimulates customer's brand engagement and improves the sales volume of the products and services. There is ample evidence that the soul of brand image is associated with the concept of relationship marketing, which explains interactions and subsequently elevates customer experiences (Vivek et al., 2012).
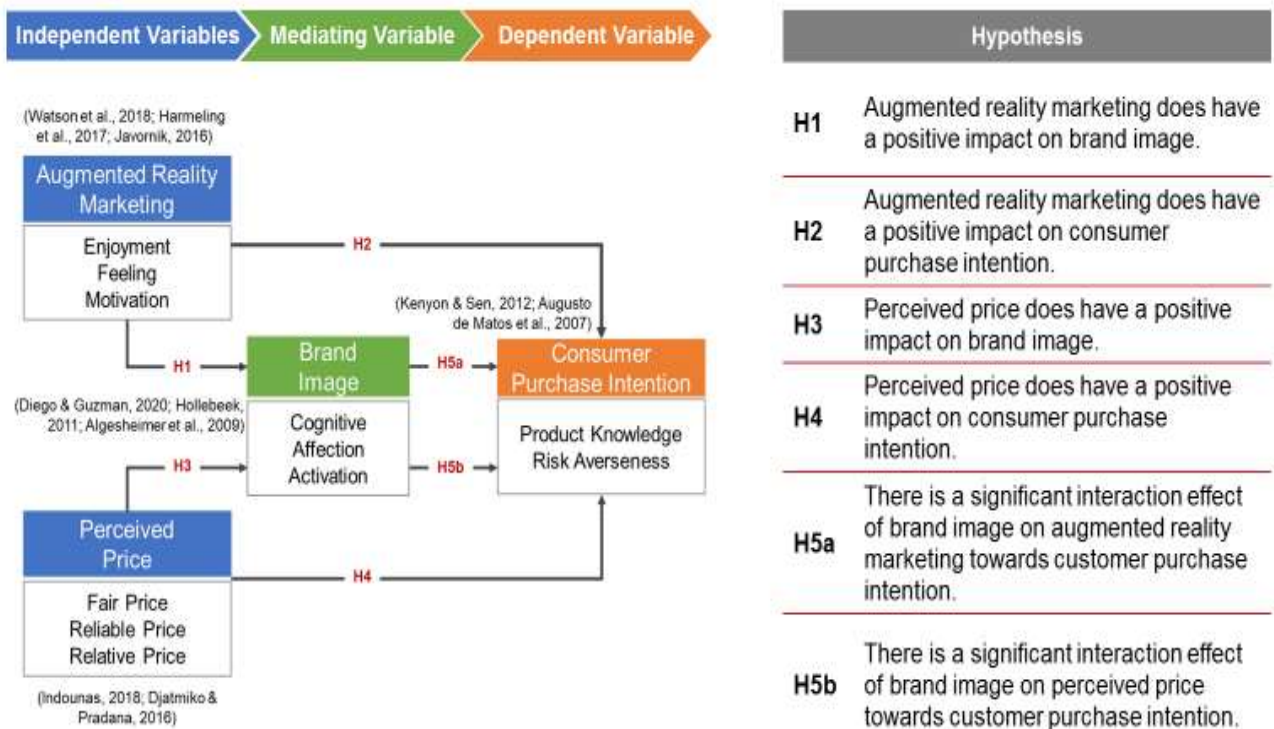Mollen & Wilson (2010) define the brand image as affective and commitment of a customer on a brand either through web-view or any electronic media intended to convey brand value. It is believed that customers are only involved with a particular brand when their needs, wants, and price is fulfilled. Scholars agreed that brand image is positively correlated with brand relationship and purchase intention at specific times (Brodie et al., 2013). Therefore, it is understandable that if online consumer shopping provides value and truly gets the item or product as said in the advertisement, it provides value that might develop confidence in that particular website and

enhance its intention in the future. Moreover, improving brand image may result in better customer loyalty (Hollebeek, 2011).

In the research, Shopee Malaysia was selected as the case to be studied. As the online shopping platform continues to grow, many marketing activities were observed in the market. Therefore, Shopee needs to keep their momentum and focus on delivering digital experience while effectively managing the price. Although Shopee had takeover Lazada from the aspect of monthly visit rate (Muller, 2021a) but still left behind in terms of the business model used to achieve operational excellence (Lim, 2017). Hence the research aimed to gauge if augmented reality marketing and perceived price influence consumer's purchase intention and does the brand image gave positive interactive effects between these variables.

The research aimed to investigate if augmented reality can drive consumers' purchasing behaviour in online shopping and explore the intelligent application's critical aspect to build brand engagement (Kenyon & Sen, 2012). Before making any purchase, the consumer would go through a decision-making process so that they would be able to catch the best offers. Hence, consumers would review different factors of the product/service, such as product knowledge, risk averseness, performance, reliability, and durability, before making a deal. Although a genuine purchasing attitude would be intriguing for marketing practitioners, customers' intention to purchase would widely used to explain consumer behaviour studies. It would be impossible or practical to undergo consumer buying behaviour experimentally (Augusto de Matos et al., 2007).

Figure 1: Frameworks and Hypotheses

Independent Variables	Mediating Variable	Dependent Variable		Hypothesis

		H1	Augmented reality marketing does have a positive impact on brand image.
		H2	Augmented reality marketing does have a positive impact on consumer purchase intention.
		H3	Perceived price does have a positive impact on brand image.
		H4	Perceived price does have a positive impact on consumer purchase intention.
		H5a	There is a significant interaction effect of brand image on augmented reality marketing towards customer purchase intention.
		H5b	There is a significant interaction effect of brand image on perceived price towards customer purchase intention.

Diagram elements:

Augmented Reality Marketing — Enjoyment, Feeling, Motivation (Watson et al., 2018; Harmeling et al., 2017; Javornik, 2016)

Brand Image — Cognitive, Affection, Activation (Diego & Guzman, 2020; Hollebeek, 2011; Algesheimer et al., 2009)

Consumer Purchase Intention — Product Knowledge, Risk Averseness (Kenyon & Sen, 2012; Augusto de Matos et al., 2007)

Perceived Price — Fair Price, Reliable Price, Relative Price (Indounas, 2018; Djatmiko & Pradana, 2016)

Methodology

A descriptive research was carried out with on convenience sample using SurveyMonkey, an electronic survey platform to collect data during the restriction of movement control to prevent the spread of Coronavirus. With the Survey Monkey, data collected was automatically filtered through logic settings before being imported into the SPSS software (i.e. frequency, reliability, validity, and Pearson correlation) and SPSS AMOS – Structural Equation Modeling (SEM) through a path diagram to test the theoretical framework and finally reporting.

Due to time and budget constraints, a convenience sampling approach was used. Respondents were selected based on criteria set of age group 18 above and those who have experience buying online from Shopee. According to Flynn et al. (1990) sample size of 30 to 500 is considered sufficient to conclude. Therefore, the sample size determined for the study was 250.

A pilot test study was conducted among 30 respondents to check the reliability and validity of the questionnaire and factor analysis was used to test the validity of the questionnaire. The research

was carried out using questionnaire. Questionnaire instruments was used to collect demographic information of the respondent and data related to the four variables as outlined in the theoretical framework such as Augmented Reality Marketing, Perceived Price, Brand Image, and Purchase Intention – these variables were measured with a likert scale of 1 -5 where [1] "strongly disagree", [2] "disagree", [3] "neutral", [4] "agree", and [5] "strongly agree".

Results and Discussion

The study found that augmented reality marketing does have a significant impact on brand image and consumer purchasing intention. The correlations analysis indicates that embedding augmented reality technology in Shopee's mobile application would improve customer's enjoyment, feeling and motivation towards Shopee, which subsequently form a greater level of cognitive thinking, affection and activation on the brand. The findings aligned with past studies where creating augmented reality marketing could bring better visualisation and interpretation of a product, which subsequently builds emotional attachment compared to conventional advertising (Javornik, 2016). Augmented reality marketing would improve brand recognition and interactions (Harmeling et al., 2017) and, thus, potentially has a significant impact during the pre-purchase stage (Johnson et al., 2015).

As for perceived price, it was found that fair, reliable, and relative price significantly impact how customers behave during brand interactions. Similarly, with augmented reality marketing, setting up the right price does significantly impact consumer purchase intention. This would include overall experience in customer service, delivery, channel deliverables, trustworthiness, or brand reputation (Lim, 2017). In contrast, Anselmsson et al. (2014) stated that premium price was undoubtedly the best indicator to measure brand equity, e.g., Apple iPhone, where consumers were willing to trade-off with a premium price. The study demonstrated that consumers were more favourable with the fair, reasonable, and relative price. According to Konuk (2015), in most cases, when the brand was relatively new or unknown to consumers, they do not mind paying to try but not transacting at a premium price.

Table 1 : Bivariate Correlation

Augmented Reality Marketing			Perceived Price		
RO1 To investigate the effects of augmented reality marketing on consumer purchase intention	**RQ1** Does augmented reality marketing affect consumer purchase intention particularly in an e-commerce setting?		**RO2** To investigate the effects of perceived price on consumer purchase intention.	**RQ2** Does perceived price affect consumer purchase intention particularly in an ecommerce setting?	

H1: Augmented reality marketing does have a positive impact on brand image.

H2: Augmented reality marketing does have a positive impact on consumer purchase intention.

H3: Perceived price does have a positive impact on brand image.

H4: Perceived price does have a positive impact on consumer purchase intention.

Correlations

		AR	PI	BI
AR	Pearson Correlation	1	.294**	.217**
	Sig. (2-tailed)		.000	.000
	N	250	250	250

Hypotheses : ACCEPTED

Correlations

		PP	PI	BI
PP	Pearson Correlation	1	.290**	.284**
	Sig. (2-tailed)		.000	.000
	N	250	250	250

Hypotheses : ACCEPTED

Note: The default value of the relationship from 0 to 1 and P value must less or equal than is (Sharma, 2016)

As for the interaction effect, structural equation modelling was used to analyze if brand image mediates between independent variables, augmented reality marketing and perceived price, and the dependent variable, consumer purchase intention. As discussed in the literature review, having the right brand could attract more potential consumers and help the business to outshine its competitors (Tasci, 2021). Based on the research's analysis, it is clear that brand image does mediate both augmented reality and perceived price towards consumer purchase intention. According to D. Kim et al., (2018), online shopping proved to have a strong relationship with a brand, where consumers are unconsciously involved in the success and failure of the brand (Diego & Guzman, 2020). The findings of the study confirmed that consumers who were highly involved in online purchases tend to have an optimistic attitude towards the brand, similar to a study conducted by Wirtz et al., (2013b).

Table 2 : Structural Equation Modeling

RO3	RQ3
To investigate the **interaction effects of brand image on augmented reality marketing and perceived price** towards consumer purchase intention.	Does the **brand image mediate augmented reality marketing and perceived price on consumer purchase intention** in an e-commerce setting?

Step 1: To find the impact of AR, PP towards PI without mediator effect

	Estimate	S.E.	C.R.	P Value	Results (P Value <0.05)
PI <— AR	0.270	0.056	4.846	0.000	Significant
PI <— PP	0.308	0.064	4.775	0.000	Significant

Step 1: To find the impact AR, PP towards PI with mediator effect

	Estimate	S.E.	C.R.	P Value	Results (P Value <0.05)
BI <—AR	0.180	0.510	3.512	0.000	Significant
PI <—AR	0.233	0.056	4.165	0.000	Significant
PI <—BI	0.202	0.068	2.987	0.003	Significant
BI <—PP	0.272	0.580	4.673	0.000	Significant
PI <—PP	0.257	0.066	3.877	0.000	Significant
PI <—BI	0.187	0.069	2.705	0.007	Significant

Step 3: To find out if this impact is significant or not through Booststraping confidence

	Standard Estimation	Sig	Results (P Value <0.05)
Total Effect (AR => PI)	0.270	0.013	Significant Impact
Direct Effect (AR => PI)	0.233	0.008	Significant Impact
Indirect Effect (AR => BI =>PI)	0.036	0.004	Significant Impact
Total Effect (PP => PI)	0.308	0.015	Significant Impact
Direct Effect (PP => PI)	0.257	0.029	Significant Impact
Indirect Effect (PP => BI => PI)	0.051	0.023	Significant Impact

H5a: There is a significant interaction effect of brand image on augmented reality marketing towards customer purchase intention.

H5b: There is a significant interaction effect of brand image on perceived price towards customer purchase intention.

Hypotheses : ACCEPTED

The study confirmed that all three Research Objectives have been achieved as shown in table 3.

Table 3 Summary of Hypotheses

Research Objectives	Research Questions	Hypothese	Findings
To investigate the effects of augmented reality marketing on consumer purchase intention.	Does augmented reality marketing affect consumer purchase intention, particularly in an e-commerce setting?	H1: Augmented reality marketing does have a positive impact on brand image. H2: Augmented reality marketing does have a positive impact on consumer purchase intention.	Results indicates that augmented reality marketing indicates a significant relationship towards brand image and purchase intention
To investigate the effects of perceived price on consumer purchase intention.	Does perceived price affect consumer purchase intention, particularly in an e-commerce setting?	H3: Perceived price does have a positive impact on brand image. H4: Perceived price does have a positive impact on consumer purchase intention.	Results indicates that perceived price indicates a significant relationship towards brand image and purchase intention
To investigate the interaction effects of brand image on augmented reality marketing and perceived price towards consumer purchase intention.	Does the brand image mediate augmented reality marketing and perceived price on consumer purchase intention in an e-commerce setting?	H5a: There is a significant interaction effect of brand image on augmented reality marketing towards customer purchase intention. H5b: There is a significant interaction effect of brand image on perceived price towards customer purchase intention.	Results indicates that there are positives interactions effects between brand image on both augumented reality marketing and perceived price towards customer purchase intention

Conclusion

The study confirmed that the impact of augmented reality marketing and perceived price on consumer purchase intention and also confirmed the interaction effects of brand image as a mediator between both independent variables, augmented reality marketing and perceived price on the dependent variable, namely consumer purchase intention

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