



## Strategies To Drive Purchasing Decisions Through the Utilization Of Social Media

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**Abstract.** Applications that arise because of technological developments have the potential to change the consumer shopping experience through emerging social media. One of them is the use of augmented reality (AR) applications. As a relatively new application, it is important to examine its implementation in the MSME sector, related to positive response variables, purchasing decisions and stickiness variables as moderators. The research objectives are to test and explain the effect of augmented reality (AR) technology on purchasing decisions and positive responses, the effect of positive responses on purchasing decisions, as well as the role of positive responses mediating the relationship between AR and purchasing decisions, the role of stickiness as moderating the relationship between AR and purchasing decisions. The research was conducted in Denpasar Bali. This study used a sample of 400 respondents. The analysis technique used is path analysis technique. The research findings show that AR has a positive and significant effect on purchasing decisions and positive responses, positive responses have a positive and significant effect on purchasing decisions, positive responses do not play a mediating role, and stickiness plays a quasi-moderating role. Furthermore, these findings can be used as considerations by producers and marketers, to be able to face competition and develop business by utilizing information and communication technology. Meanwhile, the government is expected to be an input in making policies that encourage the pace of economic growth in Bali.

**Keywords:** Technology, Social media, Augmented reality (AR), Positive response, Purchase decision.

**Abstrak.** Aplikasi yang muncul karena perkembangan teknologi berpotensi mengubah pengalaman berbelanja konsumen melalui media sosial yang sedang berkembang. Salah satunya adalah penggunaan aplikasi augmented reality (AR). Sebagai aplikasi yang tergolong baru, maka penting untuk dikaji implementasinya pada sektor UMKM terkait dengan variabel respon positif, keputusan pembelian dan variabel stickiness sebagai moderator. Tujuan penelitian adalah untuk menguji dan menjelaskan pengaruh teknologi augmented reality (AR) terhadap keputusan pembelian dan respon positif, pengaruh respon positif terhadap keputusan pembelian, serta peran respon positif memediasi hubungan AR dengan keputusan pembelian, peran stickiness sebagai moderasi hubungan AR dengan keputusan pembelian. Penelitian ini dilakukan di Denpasar Bali. Penelitian ini menggunakan sampel sebanyak 400 responden. Teknik analisis yang digunakan adalah teknik analisis jalur. Hasil penelitian menunjukkan bahwa AR berpengaruh positif dan signifikan terhadap keputusan pembelian dan respon positif, respon positif berpengaruh positif dan signifikan terhadap keputusan pembelian, respon positif tidak berperan sebagai mediasi, dan stickiness berperan sebagai moderasi kuasi. Selanjutnya temuan tersebut dapat dijadikan bahan pertimbangan para produsen dan pemasar, untuk mampu menghadapi persaingan dan mengembangkan usaha dengan memanfaatkan teknologi informasi dan komunikasi. Sementara itu, pemerintah diharapkan dapat menjadi masukan dalam mengambil kebijakan yang mendorong laju pertumbuhan ekonomi di Bali.

**Kata Kunci:** Teknologi, Media Sosial, Augmented Reality (AR), Respon Positif, Keputusan Pembelian.

### 1. INTRODUCTION

Social media utilization is found to help promotional activities, create purchases, increase sales and profitability, acquire new customers, retain them and create purchasing decisions and loyalty (Elena, 2016). Non-visual components on social media such as music have the effect of increasing interaction, providing pleasure and ultimately leading to behavior

for purchasing decisions (Huang and Benyoucef, 2013). Social media can be useful for achieving purchase decision goals, if it has been included in the marketing strategy (Berthon et al., 2012).

Purchasing decisions are largely formed by a positive response to products and services. A positive response is an individual emotional activity that is formed and has an impact on behavior (Huang and Liu, 2014). Positive response is closely related to consumer characteristics when responding to marketing activities (Fiore and Kim, 2007). This means that the characteristics of respondents are considered to influence the positive response and the direction of the relationship that occurs. Marketing strategies by presenting attractive features can create experiences and influence consumer emotions and purchasing behavior (Hultén, 2011). One of them is the purchasing experience that can be felt through social media that follows the development of digital technology.

Technological developments that utilize social media have the potential to change the consumer shopping experience by using augmented reality (AR) applications (Duncan et al., 2013: 6). AR facilities provide additional product information and the ability to interact with products (Patano and Servidio, 2012), assisting in making consumer decisions (Papagiannidis et al., 2017). Research findings reveal that AR has a significant positive effect on the convenience of purchasing decisions (Hilken et al., 2017). There are findings revealing that social media with accompanying technology has no effect on the performance of small and medium enterprises, including in creating purchasing decisions, thus having an impact on the performance of MSMEs (Foltean et al., 2018). The inconsistent findings are very interesting to be further explored by paying attention to the existence of other variables as mediators or moderators. The variable is at least related to AR technology which is currently being used in smartphone features.

The development of smartphone features provides an opportunity for the use of AR applications to be increasingly in demand as a tool to create customers with the experience of meeting needs through digitalization (Abnett, 2016). AR has a positive and significant effect on the positive response formed in its users (Javornik, 2014, 2016a). Although several studies have considered how AR has been found to positively influence positive user responses (Huang, 2012), as a relatively newly recognized application, it is important to look at efforts to increase positive responses by adding stickiness variables as moderators. Stickiness is defined as a user's willingness to return and prolong the duration of being on an application or website (Yang and Lin, 2014).

Stickiness arises from within the individual because of trust (Liu et al., 2004). Online trust is different from offline trust because in the online context, technology and organizations that apply technology are objects of trust (Beldad et al., 2010). Trust in certain social media will increase the frequency of visiting these social media (Chen et al., 2010). Social media that has started using AR is Instagram. AR is one form of application that is increasingly being used, but there are still very few studies that lead to consumer behavior (Javornik, 2016b; Rese et al., 2016). This situation is an interesting research gap that is further studied by exploring the effects of AR, on positive user responses, the emergence of stickiness that causes consumer behavior responses, especially in fashion products. Fashion products are the choice of research because the implementation of AR has now begun to appear for fashion products.

This research focuses on consumer behavior that begins to take advantage of the development of digitalization technology in meeting needs. This situation is an opportunity for marketing to utilize AR technology on social media by exploring the impact of AR and stickiness on positive responses and purchasing decisions. Thus, referring to the SOR model by Mehrabian and Russel (1974). The SOR model states that, when individuals encounter a stimulus (S), it will develop an internal state in the organism (O), then cause a response by the recipient of the stimulus (R). This means that the existence of a stimulus will affect the organism's response, which then influences purchasing decisions. The SOR model also shows that consumer emotions influenced by environmental stimulus become an important part of responding to the stimulus. The emotional response to the environment that forms the stimulus by Mehrabian and Russel (1974) can be explained in three dimensions, namely 1) Pleasure, which is measured by a verbal assessment of the reaction to the environment in the form of a level of happiness, joy, or satisfaction in a situation. 2) Passion, which is measured verbally in the form of a person's assessment of happiness in a particular situation. 3) Dominance, which is measured by an indication of one's feelings that are dominant and influenced by environmental situations.

The SOR model is quite widely used in retail research using a consumer behavior approach (Huang 2012; Huang and Liu, 2014). This study aims to investigate whether the use of AR applications influences positive response, stickiness and consumer behavior to make purchasing decisions on fashion MSMEs in Bali, through Instagram social media.

AR includes persuasive technology, which is not merely a function of technology but is able to shape and provide experiences to customers (Fogg, 2003). The interesting experience felt by adopting AR is formed interactive and consumer interaction in the form of product or brand image reviews exceeding traditional ways (Huang and Liu, 2014). AR is able to provide

an online consumer shopping experience that seems to interact with the brand or product. The market size of AR users continues to increase. According to information from Global Market Insights reports that the AR market size exceeded \$1 billion in 2016 and is expected to double by 2024 (Bhutani and Bhardwaj, 2017). The data indicates that quite a few products or brands are starting to adopt AR and develop mobile applications to connect and engage consumers to try products virtually (Skeldon, 2018). The application effect of using AR provides a very important aspect of shopping experience for consumers when purchasing beauty or fashion products (Park et al., 2006).

Response is an overall evaluation that allows people to act in a consistently favorable or unfavorable way with respect to a given object or alternative . Responses are formed from three components, namely cognitive, affective and conative. The cognitive component describes consumer perceptions, consumer opinions, consumer comparisons of an object and about the characteristics of the brand itself. The affective component describes consumer feelings, consumer emotions, consumer evaluations and the level of the brand itself. While the conative component explains about consumer tendencies, consumer goals, consumer preferences for an object and consumer loyalty to certain brands. This is what determines how a consumer response can decide in purchasing a product. Response has an important role in shaping individual behavior, where the response to products / brands often influences consumers in making purchasing decisions. Thus, a positive response to a particular product/brand allows consumers to make purchases of that brand, and conversely a negative response will prevent consumers from making purchases. The positive response of consumers is an effective measure to assess a purchase intention (Li et al., 2001). Consumers who experience a greater emotional response (positive) will have a stronger purchase intention.

Stickiness refers to an individual's desire to keep using a particular social media (Karahanna et al., 2009). A favored app will experience increased stickiness when its users are highly committed to reusing the app consistently in the future. Stickiness results from an individual's trust after visiting a social media platform (Liu et al., 2004). Stickiness can be generated from the value or benefits felt after using social media. Users experience stickiness in an application if they spend an above-average amount of time viewing content, when they frequently open the application, and when they explore the application in depth. Stickiness is also defined as the willingness of social media users to return and extend the duration of their time on an application or website.

Purchasing decisions is a process based on consumer psychology when making decisions. This process includes problem recognition, information search, alternative

evaluation, purchase decisions, and post-purchase behavior. Purchasing decisions will be influenced by elements of culture, social class, lifestyle or consumer beliefs. Purchasing decisions are the steps that consumers go through before deciding to buy a product (Lin et al., 2015). Decision making is an individual activity that is directly involved in obtaining and using the products offered. Purchasing decisions are measured by a person's attitude towards the product, the buying situation, the decision at the time of purchase. Decisions at the time of purchase are also influenced by unexpected situational factors. Consumers decide on purchases based on family income, price and expected product benefits. Purchasing decisions are an effective measure to anticipate consumer response behavior (Li et al., 2002).

## **2. METHODS**

Research design determines the success in achieving good and useful research results. This research uses quantitative research design (Creswell, 2010: 5). Data measurement for each indicator in quantitative analysis uses semantic differential scale measurement units from 1 to 5. The research location was conducted in Bali. The population of this study is the entire adolescent population in Bali. Sampling using purposive random sampling technique, where not all populations have the same opportunity as respondents and must meet the criteria needed in this study. Some of the sample criteria needed are residents aged 17 years and over, at least high school education and equivalent, recognize augmented reality (AR) applications and have used them. The total sample amounted to 400 respondents spread throughout Bali. This research uses path analysis techniques. Path analysis is an extension of multiple linear regression analysis in estimating the causal relationship between variables that have been previously determined based on theory.

## **3. RESULTS**

The results obtained from distributing questionnaires are described to provide a clear interpretation. The average value is used to describe the results obtained from the research instrument. An assessment using a range of criteria is shown in Table 4.1 below. The description of the research variables is carried out to interpret each research variable. Data measurement uses a semantic differential scale, using categories according to the research variables, and each category is weighted with a value degradation ranging from five to one.

**Table 1.Respondent assessment categories**

Score	Category	
	<i>Augmented Reality</i>	Positive response, Stickiness, and purchase decision
1,00 – 1,79	Strongly disagree	Very low
1,80 – 2,59	Disagree	Low
2,60 – 3,39	Disagree	High enough
3,40 – 4,19	Agree	High
4,20 – 5,00	Strongly Agree	Very high

**Source: data processed, 2024**

The number one means strongly disagree and the closer the number five is the more agree, to strongly agree. There are four variables analyzed in this study, namely the augmented reality variable ( $X_1$ ), the positive response variable ( $X_2$ ), the stickiness variable ( $X_3$ ), and the purchase decision variable ( $Y_1$ ). Furthermore, the description of each variable can be described as follows.

### Description of augmented reality variables ( $X_1$ )

The development of social media by utilizing AR applications is starting to develop and be used by the community. AR is very useful in visually showing products that are introduced and are increasingly in demand (Papagiannidis et., al 2017). Augmented Reality is important to explore further in influencing purchasing decisions for MSME products that already use AR applications. Measurement of augmented reality variables in this study consists of four indicators. The following are the results of the description of augmented reality variables, presented in the form of percentages and average values (mean) in Table 2.

**Table 2.Description of Respondents' Perceptions of Augmented Reality Indicators ( $X_1$ )**

Variable	Indicator	Respondent Perception					Average	Description
		1	2	3	4	5		
<i>Augmented Reality</i> ( $X_1$ )	Ease of use ( $x_{1.1}$ )	1	7	45	122	125	4,21	Strongly Agree
	Content quality ( $x_{1.2}$ )	3	7	65	114	111	4,08	Agree
	Content informativeness ( $x_{1.3}$ )	23	20	65	105	87	3,71	Agree
	Enjoyment ( $x_{1.4}$ )	7	22	56	96	119	3,99	Agree
	Average augmented reality variable ( $X_1$ )						4,00	Agree

**Source: statistical results**

Table 2 shows the distribution of respondents' perceptions on the four indicators of the measuring instrument. The average score for the augmented reality variable or construct is 4.00. This means that respondents generally agree that augmented reality has an influence on the behavior of purchasing decisions for MSME products. The majority of respondents felt the

role of augmented reality in their decisions. The influence of augmented reality is obtained from ease of use, content quality, content informativeness and enjoyment in using the application. The indicator that has the highest score is the ease-of-use indicator with an average of 4.21, meaning that respondents feel the benefits of augmented reality is very high, especially the ease of using an application that is simple and easy to understand. The lowest score is on content informativeness with an average score of 3.71, meaning that respondents agree that augmented reality applications are able to provide interesting information about the content presented. Thus, the influence of augmented reality is important to get attention in understanding purchasing decision behavior.

### **Description of positive response variable ( $X_2$ )**

The positive response to the presence of AR users on MSME products is an important concern in understanding consumer behavior and consumer purchasing decision activities. A positive response is a sign of product acceptance in the community. Positive responses also signal purchasing decisions that occur. The following is a recapitulation of respondents' responses regarding the positive response variable with the presence of AR in MSME products shown in Table 3.

The average score of respondents' answers to positive responses to the use of AR is 3,99, indicating that respondents have a high positive response. The passion indicator has the highest average score of 4,14, meaning that respondents agree that there is high passion or enthusiasm for MSME products using AR. This high level of passion or enthusiasm arises from all the facilities that AR has in introducing MSME products to be very interesting. The lowest score is on the emotion indicator of 3,86 ya which shows a high outburst of certain feelings when viewing products using AR.

**Table 3. Description of Respondents' Perceptions of Positive Response Indicators ( $X_2$ )**

Variables	Indicator	Percentage of Respondents' Perception					Average	Description
		1	2	3	4	5		
Positive response ( $X_2$ )	Passion ( $X_{2.1}$ )	4	18	38	111	129	4,14	High
	Pleasure ( $X_{2.2}$ )	3	18	52	124	103	4,02	High
	Emotions ( $X_{2.3}$ )	16	20	59	99	106	3,86	High
	Mood ( $X_{2.4}$ )	14	9	79	81	117	3,93	High
	Average positive response variable ( $X_2$ )						<b>3,99</b>	High

**Source: statistical results**

Overall, the descriptive analysis of the positive response variable shows that respondents agree that a positive response has a high role in helping to take an attitude to make purchasing decisions. This high positive response is supported by passion, pleasure, emotion and mood in making decisions

### Description of stickiness variable ( $X_3$ )

Stickiness, which refers to the willingness of social media users to return and extend the duration of time on products that use AR, needs to be considered by MSMEs. A recapitulation of respondents' perceptions of the stickiness variable is presented in Table 4.

Table 4 shows that the mean value for the stickiness variable is 3.91. This indicates that respondents agree that stickiness, formed by the four indicators in this study, is capable of providing high value. Indicators scoring above the mean are the duration of use and frequency of visits, with average values of 4.01 and 3.96, respectively. This suggests that the majority of consumers perceive stickiness as offering significant benefits. Therefore, it is crucial for producers and marketers to consider the stickiness variable in efforts to enhance purchase decisions.

**Table 4. Description of Respondents' Perceptions of *Stickiness* Indicators ( $X_3$ )**

Variables	Indicator	Percentage of Respondents' Perception (%)					Average	Description
		1	2	3	4	5		
<i>Stickiness</i> ( $X_3$ )	Duration of use ( $X_{3.1}$ )	14	13	50	101	122	4.01	High
	Frequency of visits ( $X_{3.2}$ )	7	13	67	111	102	3.96	High
	Depth of visit ( $X_{3.3}$ )	19	15	79	92	95	3.76	High
	Revisit motivation ( $X_{3.4}$ )	14	14	63	105	104	3.90	High
	Average stickiness variable ( $X_3$ )						<b>3.91</b>	High

**Source: statistical results**

### Description of purchasing decision variables ( $Y$ )

Purchasing decisions are the hope of producers and marketers. There are many factors that can shape purchasing decision behavior towards MSME products. This purchasing decision behavior is measured using six measurement indicators, namely product selection ( $Y_1$ ), brand selection ( $Y_2$ ), social media selection ( $Y_3$ ), purchase time ( $Y_4$ ), purchase amount ( $Y_5$ ) and payment method ( $Y_6$ ). A recapitulation of respondents' perceptions of the behavioral intention variable is presented in Table 5.



**Table 5. Description of Respondents' Perceptions of Purchasing Decision Indicators (Y)**

Variables	Variable indicators	Percentage of Respondents' Perception (%)					Average	Ket
		1	2	3	4	5		
Purchase Decision (Y)	Product selection (Y <sub>1</sub> )	5	20	51	105	119	4.04	High
	Brand selection (Y <sub>2</sub> )	3	20	74	123	80	3.86	High
	Social media selection (Y <sub>3</sub> )	8	28	86	79	99	3.78	High
	Time of purchase (Y <sub>4</sub> )	13	5	62	117	103	3.97	High
	Purchase Quantity (Y <sub>5</sub> )	14	12	78	75	121	3.92	High
	Payment method (Y <sub>6</sub> )	4	18	71	99	108	3.96	High
	Average purchasing decision variable (Y <sub>2</sub> )						<b>3,92</b>	High

**Source: statistical results**

Table 5 shows that the average respondent's perception for the purchasing decision variable is 3.92. This means that respondents agree that purchasing decisions are formed from the indicators used in this study. The indicator that has the highest score is the product selection indicator with an average score of 4.04. This means that purchasing decisions are largely determined by the decision on the product chosen. The decision on the product is caused by several things beforehand.

### Hypothesis Testing

The results of testing the hypothesis of direct influence, mediation and moderation roles can be explained as follows.

**H<sub>1</sub>: Augmented reality (AR) has a positive and significant effect on green on purchasing decisions.**

The results of testing the effect of social influence on green purchasing behavior are indicated by a t-statistic value of 6.220 greater than 1.96. This means that the variable relationship is significant from the t-statistic value. The significant t-statistic value test results indicate sufficient empirical evidence to accept the hypothesis (H<sub>1</sub>) which states that the better the presentation of augmented reality formed by its indicators, the effect on purchasing decisions.

**H<sub>2</sub>: Augmented reality (AR) has a positive and significant effect on positive response**

Testing the effect of augmented reality on positive responses indicated by a t- statistic value of 5.437 means that the variable relationship is significant at the 95 percent confidence level. The positive path coefficient means that the effect of augmented reality on positive responses is unidirectional. That is, the better the presentation of augmented reality, the better its ability to create a positive response from its users. This means that H<sub>2</sub> is accepted.

**H<sub>3</sub>: Positive response has a positive and significant effect on purchasing decisions**

The test results that have been carried out show that the effect of green attitude variables on green purchase behavior produces a t-statistic value of 7.617, greater than 1.96. This means that the variable relationship has a positive effect and significant. The significant t-statistic value test results indicate sufficient empirical evidence to accept the hypothesis (H<sub>3</sub>) which states that the higher the positive response, the stronger the purchase decision.

**H<sub>4</sub>: Positive response significantly mediates the effect of augmented reality (AR) on purchasing decisions.**

The results of the evaluation of testing the effect of augmented reality variables on purchasing decisions mediated by positive responses using the VAP test. The VAP test results show a mediating role of 30 percent, which means very low and tends not to act as a mediator. Thus, there is sufficient empirical evidence that H<sub>4</sub> is rejected. Positive response does not act as a mediator of augmented reality variables on purchasing decisions. This means that the stronger the purchasing decision caused by augmented reality, is not mediated by the positive response formed. This indicates that the effect of augmented reality on purchasing decisions cannot be mediated by positive responses.

**H<sub>5</sub>: Stickiness significantly moderates the influence of augmented reality (AR) on purchasing decisions.**

The value of stickiness as a moderating variable on the effect of augmented reality (AR) exogenous variables on the endogenous variable of positive response can be seen from the estimated value of the stickiness variable on positive response and the interaction variable (Aug\*Stickiness -> Positive Response). Table 4.11 shows that the estimated value of the stickiness variable on the positive response is 0.455 with a P-value of 0.000. This shows that there is a significant influence of the exogenous variable stickiness on positive response. The coefficient value of the effect of stickiness on positive response is significant, and the interaction variable (Aug \* Stickiness -> Response) shows significant results, so the type of moderation of stickiness on the effect of the exogenous variable augmented reality (AR) on the endogenous variable positive response is classified as quasi moderation. This means that H<sub>5</sub> can be accepted, where stickiness is able to act as a moderating variable.

#### **4. DISCUSSION**

##### **The influence of augmented reality (AR) on purchasing decisions**

The analysis found that augmented reality has a positive and significant effect on purchasing decisions. This means that the better the quality of augmented reality is used, the stronger the purchasing decisions formed in the minds of consumers. Augmented reality measured by ease-of-use influences purchasing decisions. The quality of the content presented is a strong reason for deciding to make a purchase. Innovative content is highly favored by consumers, especially millennial consumers, so that it greatly encourages purchasing decisions. Augmented reality technology makes consumers feel their own enjoyment, especially in recognizing the products offered more closely. Augmented reality with these indicators is very capable of encouraging purchasing behavior.

Based on the results of surveys and in-depth interviews that have been conducted, it proves that augmented reality (AR) has begun to be recognized and has begun to develop in the MSME sector. The existence of AR helps in marketing products and is a contributing factor to the creation of purchasing decisions. Purchasing decisions can be caused by marketing efforts using AR technology. The use of augmented reality technology can attract people to make purchasing decisions due to the fear of missing out on the latest technology (Karina et al., 2020).

The findings of this study are in accordance with the implementation of the SOR theory expressed by Mehrabian and Russel (1974), stating that, when an individual encounters a stimulus (S), it will develop an internal state in the organism (O), then cause a response by the stimulus recipient (R). This means that the existence of a stimulus will affect the organism's response, which then influences purchasing decisions. Stimulus arises from the use of augmented reality (AR) technology in introducing products. AR is part of the marketing tool that is starting to be liked and is able to provide stimulus in the form of a positive response, so that it is led to make a purchase decision. The findings of this study are in line with research findings by Patano and Servidio (2012); Hilken et al., (2017); Abnett, (2016); and Papagiannidis et al., (2017).

##### **The effect of augmented reality (AR) on positive response.**

The research findings show that augmented reality has a positive and significant effect on positive responses. This means that the better the augmented reality technology that consumers experience and enjoy, the stronger and more positive responses formed in their minds. Attractive augmented reality can encourage consumers to make purchasing decisions.

Interesting augmented reality features can generate enthusiasm among the audience and contribute to positive responses. A positive response is reflected when AR users feel pleasure with the features of AR. Positive responses also arise from emotional reactions when seeing products that use AR. The mood of AR users becomes an extraordinarily positive response, creating a comfortable feeling when engaging with AR technology products.

The positive response in SOR theory is a reflection of the psychological response as a result of using technology to advertise a product. A positive response is needed by a product or brand to be able to exist in the face of competition and become the goal of a marketing strategy (Berthon et al., 2012). Based on the characteristics of the respondents, many positive responses were formed on respondents at a productive age and following technological developments. The findings of this study are in accordance with previous opinions which state that responses are consumer reactions to stimuli, both from internal factors and external factors (Li et al., 2001).

### **The effect of positive responses on purchasing decisions**

Positive responses have a positive and significant effect on purchasing decisions, meaning that the stronger and more positive responses, the more able to strengthen purchasing decisions. Purchasing decisions are an effective measure to anticipate consumer response behavior. Consumer response in the form of a positive response with excitement / enthusiasm for products with AR technology can increase purchasing decisions by selecting products and selecting brands. The choice of social media, namely using Instagram, can increase the pleasure felt and provide a positive response and have an impact on purchasing decisions. One of the indicators of a positive response is that the emotions of AR users feel an overflow of feelings of happiness / pleasure seeing the product using AR, and so on it is easier to create purchasing decisions. In addition, purchasing decisions are strongly supported by positive responses in the form of consumer mood. A good mood can have an impact on the number of purchases that occur and possibly also on the payment method. The payment method of choice can be driven by a very strong purchasing decision. People make purchasing decisions because of the positive response that arises from marketing that provides an interaction experience combining the virtual world and the real world through augmented reality technology (Kashif, 2018).

### **The role of positive response mediates the influence of augmented reality (AR) on purchasing decisions.**

The research findings indicate that the positive response variable is unable to mediate the influence of AR on purchasing decisions. This means that stronger purchasing decisions resulting from the use of AR in introducing MSME products occur without intervention from users' positive responses to AR. There may be other variables beyond positive response that play a more significant role as mediators. The role of positive response is not evident in mediating the influence of AR on purchasing decisions. The indicators of positive response—such as enthusiasm for MSME products using AR, enjoyment of products using AR, certain emotions towards AR-based products, and creating a comfortable mood—do not influence the effect of augmented reality (AR) on product selection, brand selection, social media choice, purchase timing, purchase quantity, or payment methods. A positive response does not act as a mediating variable in the relationship between AR and purchasing decisions. It is not a crucial variable in mediating the creation of purchasing decisions. Positive response is an individual's emotional activity that forms and impacts behavior (Huang & Liu, 2014; Huang & Liao, 2017). It is related to consumer characteristics when responding to marketing activities (Fiore & Kim, 2007). Therefore, a positive response does not serve as a mediating variable.

### **The role of stickiness as moderating the effect of augmented reality (AR) on positive responses.**

The findings of this study indicate that stickiness can act as a moderating variable for the influence of AR on positive responses. Very strong purchasing decisions are caused by MSMEs that present their products using AR, strengthened by the stickiness of AR users on MSME products. This situation shows that people have started to utilize AR technology through Instagram in fulfilling their needs. For MSMEs, it is also very important to pay attention to the development of trends in people's needs for technology that provides convenience, comfort, including entertainment. Stickiness with its indicators in the form of the duration of time using AR, the frequency of searching for information through AR, the level of search for information about products using AR and the motivation to revisit AR SME products, are able to strengthen the influence of using AR on MSME products on purchasing decisions.

The findings of this study are in accordance with the concept of stickiness which reveals a situation for users when they see a website or social media, including AR, the individual is interested and the situation is able to retain customers (Zott et al., 2000). Retaining customers

is closely related to purchasing decisions. This situation leads users to want to keep using certain social media (Karahanna et al., 2009). So, it is quite reasonable that stickiness can moderate the effect of using AR for MSME products on consumer purchasing decisions. The moderating role is quasi moderation, meaning that it can predict the effect of AR on purchasing decisions for MSME products.

## **5. CONCLUSION**

Augmented reality (AR) variables have a positive and significant effect on purchasing decisions. This means that the better and stronger the public acceptance of AR technology used by SMEs in marketing products, which is formed by its indicators, the stronger the formation of purchasing decisions by consumers. Augmented reality (AR) has a positive and significant effect on positive responses. This means that the better the augmented reality (AR) display of MSME products, the stronger the positive response formed in the minds of consumers. Positive response has a positive and significant effect on purchasing decisions. This means that the stronger the positive response formed in consumers to the AR that consumers enjoy, the more able they are to create purchasing decisions. Positive response does not play a role in mediating the relationship between augmented reality (AR) on purchasing decisions. This means that purchasing decisions are formed due to consumers who consume AR technology in MSMEs, without any intervention from the positive response formed. Without a positive response, it has been able to create purchasing decisions. Stickiness plays a role in moderating the relationship between augmented reality (AR) on positive responses. The moderation role is quasi moderation, where the positive response that occurs due to AR of MSME products is strengthened again due to the stickiness factor. This means that stickiness plays a role in strengthening the relationship between AR and positive responses.

## **REFERENCES**

- Abnett, K. (2016). Stage experiences or go extinct. *Business of Fashion*, (July), 1–7. Available at: <https://www.businessoffashion.com/community/voices/discussions/whatwill-the-store-of-the-future-look-like/op-ed-stage-experiences-or-go-extinct> [Accessed 12 August 2016].
- Beldad, A., Jong, M., & Steehouder, M. (2010). How shall I trust the faceless and the intangible? A literature review on the antecedents of online trust. *Computers in Human Behavior*, 26(5), 857–869.
- Berthon, P. R., Pitt, L. F., Plangger, K., & Shapiro, D. (2012). Marketing meets Web 2.0, social media, and creative consumers: Implications for international marketing strategy. *Business Horizons*, 55(3), 261–271.

- Bhutani, A., & Bhardwaj, B. (2017). Augmented reality market size by component. *Global Market Insights*, December, 242. Available at: [www.gminsights.com/industry-analysis/augmented-reality-ar-market](http://www.gminsights.com/industry-analysis/augmented-reality-ar-market) [Accessed June 9, 2019].
- Chen, Y., Shuhua, C., Jyhjeng, W., & Peiyin, T. (2010). Impact of signals and experience on trust and trusting behavior. *Cyberpsychology, Behavior, and Social Networking*, 13(5), 539–546.
- Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.
- DATAREPORTAL. (2021). Digital 2021 global overview report. Available at: <https://datareportal.com/reports/digital-2021-global-overview-report> [Accessed 3 November 2021].
- Duncan, E., Hazan, E., & Roche, K. (2013). I Consumer: Digital consumers altering the value chain. Available at: <https://www.mckinsey.com/~media/mckinsey/industries/telecommunications/our%20insights/developing%20a%20fine%20grained%20look%20at%20how%20digital%20consumers%20behave/iconsumervaluechain.hshx>
- Elena, C. A. (2016). Social media – A strategy in developing customer relationship management. *Procedia Economics and Finance*, 39, 785–790.
- Fiore, A. M., & Kim, J. (2007). An integrative framework capturing experiential and utilitarian shopping experience. *International Journal of Retail & Distribution Management*, 35(6), 421–442.
- Fogg, B. J. (2003). *Persuasive technology: Using computers to change what we think and do*. Kaufmann.
- Foltean, F. S., Trif, S. M., & Tuleu, D. L. (2018). Customer relationship management capabilities and social media technology use: Consequences on firm performance. *Journal of Business Research*, 3(2), 123–135.
- Hair Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage Publications.
- Hilken, T., de Ruyter, K., Chylinski, M., Mahr, D., & Keeling, D. I. (2017). Augmenting the eye of the beholder: Exploring the strategic potential of augmented reality to enhance online service experiences. *Journal of the Academy of Marketing Science*, 45(6), 884–905.
- Huang, E. (2012). Online experiences and virtual goods purchase intention. *Internet Research*, 22(3), 252–274.
- Huang, T. L., & Liao, S.-L. (2017). Creating e-shopping multisensory flow experience through augmented-reality interactive technology. *Internet Research*, 27(2), 449–475.
- Huang, T. L., & Liu, F. H. (2014). Formation of augmented-reality interactive technology's persuasive effects from the perspective of experiential value. *Internet Research*, 24(1), 82–109.

- Huang, Z., & Benyoucef, M. (2013). From ecommerce to social commerce: A close look at design features. *Electronic Commerce Research and Applications*, 12(4), 246–259.
- Hultén, B. (2011). Sensory marketing: The multi-sensory brand-experience concept. *European Business Review*, 23(3), 256–273.
- Javornik, A. (2016b). Augmented reality: Research agenda for studying the impact of its media characteristics on consumer behavior. *Journal of Retailing and Consumer Services*, 30, 252–261.
- Karahanna, E., Seligman, L., Polites, G. L., & Williams, C. K. (2009). Consumer e-satisfaction and site stickiness: An empirical investigation in the context of online hotel reservations. Paper presented at the 42nd Hawaii International Conference on System Sciences.
- Kashif, A. (2018). Impact of augmented reality on consumer purchase intention with the mediating role of customer brand engagement: Moderating role of interactivity in online shopping. *Journal of Management & Technology*, 1(2), 64–80.
- Li, H., Daugherty, T., & Biocca, F. (2001). Characteristics of virtual experience in electronic commerce: A protocol analysis. *Journal of Interactive Marketing*, 15(3), 13–30.
- Lin, Y. C., Lee, Y. C., & Lee, Y. F. (2015). Exploring the influence of tea beverage health claims on brand evaluation and purchase intention. *The International Journal of Organizational Innovation*, 8(2), 88–99.
- Liu, C., Marchewka, J. T., & Lu, J. (2004). Beyond concern: A privacy-trust-behavioral intention model of electronic commerce. *Information & Management*, 42, 27–42.
- Mehrabian, A., & Russell, J. A. (1974). *An approach to environmental psychology*. MIT Press.
- Pantano, E., & Servidio, R. (2012). Modeling innovative points of sales through virtual and immersive technologies. *Journal of Retailing and Consumer Services*, 19(3), 279–286.
- Papagiannidis, S., Pantano, E., See-To, E. W., Dennis, C., & Bourlakis, M. (2017). To immerse or not? Experimenting with two virtual retail environments. *Information Technology and People*, 30(1), 163–188.
- Park, E. J., Kim, E. Y., & Forney, J. C. (2006). A structural model of fashion-oriented impulse buying behavior. *Journal of Fashion Marketing and Management*, 10(4), 433–446.
- Rese, A., Baier, D., Geyer-Schulz, A., & Schreiber, S. (2016). How augmented reality apps are accepted by consumers: A comparative analysis using scales and opinions. *Technological Forecasting and Social Change*, 124, 306–319.
- Skeldon, P. (2018). Case study: Formex watches shows how AR is changing the way we shop. Available at: <https://internetretailing.net/mobile-theme/mobile-theme/case-study-formexwatches-shows-how-ar-is-changing-the-way-we-shop-17575> [Accessed June 13, 2019].



- Yang, H. L., & Lin, C. L. (2014). Why do people stick to Facebook website? A value theory-based view. *Information Technology & People*, 27(1), 21–37.
- Zott, C., Amit, R., & Donlevy, J. (2000). Strategies for value creation in e-commerce: Best practice in Europe. *European Management Journal*, 18(5), 463–475.