ISSN 1816-6075 (Print), 1818-0523 (Online) Journal of System and Management Sciences Vol. 13 (2023) No. 6, pp. 244-267 DOI:10.33168/JSMS.2023.0615

# Measuring the Influence of Mobile Prototype Augmented Reality Applications for Written Batik Clothes using the SOR Model

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**Abstract.** This study aims to analyze how user acceptance of the augmented reality feature uses the Stimulus Organism Responses (SOR) theory of the virtual try-on feature on the Prototype of the Written Batik Apparel application, namely Batiqiyan, and to determine and explain the influence between each dimension of the SOR model. The method used is quantitative. The population of this study is Batiqiyan application users who have tried the Virtual Try on Batik Clothing feature. The survey was conducted on 162 respondents. Data processing uses SmartPLS 4.0 and there are 16 hypotheses. Based on hypothesis testing, this study states that the 12 variables that influence the use of the AR Application for Written Batik Clothing on purchase intentions are vividness to immersion, information quality to immersion, vividness to enjoyment, Information Quality to Enjoyment, Vividness to Utilitarian Value, Immersion to Purchase Intention, Utilitarian Value to Purchase Intention, Body Image Perception to Purchase Intention, Narcissism to Purchase Intention while 4 variables have no significant effect, namely novelty to Immersion, novelty to enjoyment, enjoyment to purchase intention, immersion to purchase intention, moderated by narcissism this is because the results of completing the questionnaire more than 58% are aged 41 years and over. For further research, it can be tried on users who have used AR applications in the e-commerce field.

**Keywords:** Stimulus Organism Responses, Augmented Reality, Purchase Intention, Batik Clothes.

# 1. Introduction

Through the application of augmented reality in e-commerce, Customers may experience virtual shopping as though it were real, and because they can touch and analyze the product, it offers a fresh approach to overcoming all the difficulties associated with online purchasing. Based on ThinkMobiles 2021 (*How to Increase Sales by Using Augmented Reality in E-Commerce? - 2021*, n.d.) with the emergence of this development of AR technology, 63% of consumers believe that implementing AR will 35% have the possibility to make purchases more often if they can try before buy, and 22% said that it is less likely to visit an offline store if AR is available in an online store. In addition, 70% of consumers anticipate becoming more engaged with a business if it incorporates augmented reality into their shopping experience. While many significant retail organizations have used augmented reality, it is still uncommon to fuse or e-commerce in Indonesia. (Yim & Park, 2019a).

Augmented reality (AR) can create a different experience for consumers by superimposing virtual features directly onto a real-time environment using a screen or projector. The availability of this technology has led to advancements in the field of marketing in recent years and has offered new paradigms for representing goods, information, and experiences in authentic settings or real-life contexts (Huang et al., 2019).

By inserting virtual features directly into the real-time environment, augmented reality (AR) can improve consumers' sensory experiences. Retailers are rapidly adopting augmented reality (AR) applications (apps) as a tool for generating immersive customer experiences as smartphones and tablets become more widely used. As examples of retailers who recently debuted AR mobile apps, mention Burberry, Topshop, Sephora, and Panasonic. Although it has been suggested that augmented reality (AR) will play a significant part in the future of retail (Grewal et al., 2017; Javornik, 2016a), our knowledge of how it influences consumer behavior is yet largely unexplored.

Continuous innovation and inventive strategy differentiation that produce differentiated client experiences is necessary for success in this industry. (Grewal et al., 2017), hereby converting prospects into buyers (Ludwig et al., 2013) (McDowell et al., 2016). Both online stores are increasingly relying on digital technologies to deliver a distinctive and genuine customer experience. (Grewal et al., 2020). (Grewal et al., 2020). However, the inability to touch and feel fashion products is a strong barrier to building experiences and purchases that attract customer intent (Young et al., 2018). The fashion industry needs technology that satisfies customer needs for online purchasing of clothing products that match to user intentions. (Yim & Park, 2019b). In order to maximize customer satisfaction and retention, the mode aims to enhance the online shopping experience for consumers as well as service and product qualities (Morsi, 2023).

Augmented reality technology can provide virtual products to be studied to replace physical products. Augmented reality brings more information about the product, enhancing the visualization of the subject. As an alternative, AR is also being used in stores in April 2018 Zara used technology in their store window displays and designated places within stores to show a virtual catwalk with models wearing selected outfits (Mintel, 2018).

Nearly every location in Indonesia has its own particular batik design. Nonetheless, Pekalongan City, Solo City, and Cirebon are the three Indonesian cities recognized as the City of Batik and the center of batik. (Kompas 2020, n.d.). On October 2, 2009, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) classified batik as Indonesian cultural heritage, specifically intangible cultural heritage. Batik, which is a problem for Indonesian cultural identity, can be argued for two reasons. First, Indonesian individuals are aware that they should wear Batik clothing because Batik is part of their ancestry. Second, Batik has a specificity and uniqueness that distinguishes the Indonesian nation from other nations (Eny Kustiyah, 2017). Batik as a product of local wisdom based on Indonesian culture takes about 3 to 4 months to make, is not a mass product and has high artistic value. However, purchases to date have only been of a single piece of written batik fabric, which is

rarely sold as clothing. As a result, buyers have no way of knowing how the fabric would appear as clothing or whether it will blend well with them. The authors will develop an AR adoption model for written batik clothing that is augmented to the user so that users may see the appearance of their written batik clothing in order to deliver a novel shopping experience and user involvement in a product (self-viewing).

The author employed the Stimulus – Organism – Response (SOR) model which can be used to determine variables in online purchasing decisions. The SOR model is a model that shows that communication is an action-reaction process. The SOR Model The Stimulus, Organism, Response (SOR) model is a model that demonstrate how the physical environment influences the internal state and individual behaviour (Wang et al., 2021). In the SOR framework in Figure 4.1, a stimulus is conceptualized as an influence that affects the internal organism of an individual. Cognitive and affective functions that are accomplished by intermediates and processes mediate the connection between stimuli and individual responses serve as organisms' representations (responses). The final product of the consumer behaviour method is reactions (responses).

AR technology contained in the virtual try-on feature for Batik Written Clothing can be a solution in the future for both online and offline stores. If consumer acceptance of this feature is good, then this feature can also be applied by similar online businesses considering that this feature really helps consumers in their shopping activities. This feature can also be an innovation for offline stores to create virtual try-ons at stores to reduce the provision of trial products that are considered unhygienic.

Based on the SOR framework, we build and refine the structural model empirically who intend to buy as a behavioral response caused by the Bati Clothing AR application, write using sampling data from 162 consumers of various ages. In Indonesia. Our study does not only contribute to the literature on AR Batik Written clothing for purchase intention and the theory of user self-presence but also provides practical insights for buyers and sellers to reduce purchase rates in e-commerce. The remainder of this paper is organized as follows. First, we review some studies related literature. Second, based on the current study, we propose our theoretical model hypothesis. Third, we introduce our research context, sampling and data collection, and measuring items. Fourth, we empirically tested the research model and hypotheses followed by presenting the research results. Finally, this paper ends with a theoretical and practical embodiment and limitations that give rise to further research.

# 2. Theoretical Framework

### 2.1. Augmented Reality

Interest in, and usage of, augmented reality interactive technology is rapidly increasing. Extensive smartphone adoption, cost decreases, rising mobility and AR's ability to provide experiential value and influence consumer purchasing decision, have all contributed to this rise. Thus, AR has shifted from the laboratory to the commercial retail realm (Rese et al., 2016), empowering consumers to evaluate products and make decisions with more certainty (Kim and Forsythe, 2008). Whilst AR is not a new industry phenomenon, there remains a paucity of systematic studies concerning the impact of AR on consumers or users, and especially AR apps (Javornik, 2016b; Poushneh and Vasquez-Parraga, 2017; Rese et al., 2016). Previous AR research has been within the domain of human—computer interaction (Javornik, 2016b), potential usage (Rese et al., 2016) and has only more recently extended into the realm of consumer behavior (Javornik, 2016a). Provided a useful assimilation of extant AR research within a retailing context, which we consider here under three key themes: definition and evolution; adoption; and features (Javornik, 2016b; and Rese et al., 2016).

#### 2.2. SOR Model

The Stimulus, Organism, Response (SOR) model is a model that describes how the physical environment impacts both internal and external circumstances as well as a person's behavior. (Park, 2020), The stimulus is considered as an influence that impacts the individual's internal organism within

the SOR framework. The stimulus is regarded as an influence on the internal functioning of individual organisms within the SOR framework. The relationship between a person's stimulus and response is mediated by intermediaries and processes that are performed in cognitive and emotional organisms. Feedback is the result of the approach consumer behaviors. In the context of online shopping, a stimulus is a stimulus to a website because it affects internal consumers. Previous studies have shown that terms such background colors and patterns, hyperlinks, icons, color schemes, and typeface were used to create the website and arrange its location on the online store. Based on research, the stimulus is a clear indicator of technological adequacy, such as a website's quality, content, and appearance. Likewise, intangibles such as website images. Besides that, according to various researchers, belief and perceived risk are affective which fluctuates with situational context and might be affected by how each person responds to the circumstances (Chang et al., 2011).

To explore the impact of AR on purchase intention, the study draws on an adaptation of Mehrabian and Russell's (1974) SOR model. The classical model proposes that, when an individual encounters a stimulus (S), he/she develops internal states (O), which in turn dictates his/her responses (R). Thus, in keeping with Kotler (1973), the model suggests that sensory stimulation impacts the consumer's affective state, which then influences purchase intentions. Since its application to the retail environment by Donovan and Rossiter (1982), several researchers have used the framework to empirically identify causal links between experiential retail elements, consumers' affective responses, and approach purchase behaviours (Chang et al., 2011; Huang, 2012; Huang and Liu, 2014). More recently, corresponding to literature concerning offline experiential retail, several studies have applied the SOR model to explore both the direct and indirect effects of experiential online retail elements on consumer behaviour (Huang, 2012), with online retail cues providing the stimulus (S). This study aims to investigate whether the use of an AR retail app leads to similar effects on consumers' affective state and behaviours that other experiential retail elements have shown and explores whether consumers' shopping motivation orientation creates differential outcomes.

Vividness has a significant effect on Immersion. According to technological knowledge, vividness can be enhanced by enhancing depth, which refers to the quality of information represented as perceived by media consumers, and breadth, which refers to the number of sensory dimensions that can be offered by a communication medium (Yim et al., 2017). White participants made up the majority (70.4%), followed by Asian participants (11.6%) and Hispanic Americans (8.1%). A subset of immersion created by new inventive media, such as augmented reality (AR), is directly tied to the novelty effect, according to the models evaluated, which indicated that interactivity and vividness resulted in a range of positive consumer assessments through greater immersion. Many participants are interested in AR and desire to use it, which is consistent with the findings of Glasses and watch goods that employ AR. This is because AR is a cutting-edge technology that grabs users' attention. Information about product attributes was remembered first when the immersion level was high due to systematic cognitive information processing (Han, 2023).

Novelty has a significant effect on Immersion. Findings of earlier research compared mixed consumer ratings of AR-based product presentations with those of conventional web-based product presentations. The study's findings indicate that, consistently for two different product categories, AR-based product presentations are generally superior to traditional web-based product presentations in terms of their impact on media novelty, media novelty, immersion, media enjoyment, usefulness, and purchase intention (Yim et al., 2017) According to the study's findings, people using augmented reality (AR) can see themselves wearing different types of sunglasses as simply as they can when using a mirror.

Information Quality has a significant effect on Immersion. The purpose of this study is to investigate how information quality affects immersion. The study's findings demonstrate that a variety of information cues offered by augmented reality (AR) applications on smartphones can be used to generate customer feelings. When users use AR applications, users feel present in the real world

(Pantano et al., 2017). Customer happiness is the outcome of this activity, which is determined by the customer's perceived value, or the value that the customer expects. The findings of earlier investigations contrast with this. The user experience with the app may not be instantly satisfactory; this might happen if what they feel does not match what they anticipate, in which case satisfaction is not generated (Poushneh, 2018).

Vividness has a significant effect on Enjoyment. Vividness refers to "the capacity of technology to create a rich sensory-mediated environment". It integrates "no sensory experiences of fictional objects" with "sensory experiences of genuine objects," or "hallucinations". Two functional mechanisms—interactivity and clarity—are also connected to the enjoyment of media viewing. Similarly, (Yim, Cicchirillo, and Drumwright, 2012) and (Yim, Drumwright, and Cicchirillo, 2012) found that stereoscopic 3-D ads that produce a clearer image result in greater enjoyment than traditional 2-D television ads.

Novelty has a significant effect on Enjoyment. Operationally speaking, novelty is the extent to which each response is "judged as fresh, original, and different. Novelty is a composite feature of novel or distinctive stimuli. Similar to this, novelty refers to the degree of difference between current cognition and previous experience and takes into account the passage of time. Novelty is a composite feature of novel or different stimuli. Like this, novelty refers to the degree of difference between current cognition and previous experience and takes into account the passage of time (Javornik, 2019).

Information Quality has a significant effect on Enjoyment. By adding more details and features for mobile shopping, augmented reality (AR) enables customers to browse and test products digitally. To engage customers and improve their online shopping experience, retailers are constantly creating augmented reality technology. Consumers rarely rely on AR due to the poor quality of the content, despite the growing interest in this technology. This study uses a success model for information systems to explore the factors that lead to the adoption of mobile technology, concentrating on how consumers view the quality of augmented reality (AR) and how it affects how much they like and are satisfied with the technology. This study also looks at how pleasure and perceived satisfaction impact a person's demand for a product (Pantano et al., 2017) (Poushneh, 2018).

Novelty has a significant effect on Utilitarian Value. Novelty Literature Review is expressed in the person's sense that a stimulus is unfamiliar, alien, or different from other stimuli they have already encountered. Specifically describe new stimuli as things or circumstances with which the evaluator is unfamiliar. The variety of stimuli-related elements, such as the stimulus's physical qualities' originality, its placement's uniqueness, and the stimulus's uniqueness in how it is presented, might cause people to view something as being novelty (Jessen et al., 2020).

Enjoyment has a significant effect on Purchase Intention. The study's findings indicate that Perceived Enjoyment significantly influences the Intention to Buy Online. In terms of a given website's capacity to make customers happy, perceived enjoyment can be described as the degree of satisfaction customers feel during an online purchase, omitting the performance they will encounter. Customers are more inclined to make purchases at a certain website when the online buying experience there is good (Yim et al., 2017).

Utilitarian Value has a significant effect on Purchase Intention. The research hypothesis part of this study confirms that user happiness and purchase intention in the context of social trading are influenced by perceived benefits and satisfaction (utilitarian, hedonistic, and social values), as well as perceived hazards. On buying intention, utilitarian value has a considerable and favorable impact. On satisfaction and purchasing intention, utilitarian values, hedonic values, and social values all make a considerable and favorable difference. A recent technology advancement called augmented reality enables ecommerce to provide customers with an online buying experience that rivals that of physical stores. This is made feasible by the capability of augmented reality technology, which enables customers to engage and try things through the virtual environment (Jessen et al., 2020).

Novelty has a significant effect on Purchase Intention. The goal of this study is to better understand how website interaction, including active control and reciprocal communication, might alter purchase intention through online interaction and how this impact is modified by the types of products that are featured on the website. Interactivity stands out among numerous design elements as a crucial and distinctive aspect influencing online users' reactions to websites. The talk has thus far covered two types of website interaction: mechanical interaction and social interaction, which are frequently used by customers when they shop online (McLean & Wilson, 2019).

Information Quality has a significant effect on Purchase Intention. When people are linked to the internet via their smartphones, technological advancements have substantial effects on consumer behavior in terms of their intentions to make online purchases through mobile applications created by e-commerce businesses. The insignificant growth in making online purchases through mobile applications that are not in line with the growth of mobile internet users in Indonesia and Singapore will convey this research to evaluate and validate the implications of ease of use, usability, system quality, information quality, and service quality on consumer behavior in make purchase intention online through a mobile application. 100 questionnaires were distributed at random to respondents in Indonesia and Singapore who had made online purchases using mobile applications in the previous six months to gather data for a survey (Poushneh, 2018).

Utilitarian Value has a significant effect on Purchase Intention moderated by body image perception. This study looks at how clothes products are displayed and how closely potential buyers' likenesses to humans should be incorporated. Compared to conventional m-commerce interfaces that display models with physical characteristics not, partially, or entirely comparable to the consumer, mobile apps with virtual test tools (VTO) based on augmented reality (AR) are more user-friendly. It was decided to use a theoretical framework based on the Technology Acceptance Model to explain the influence of application and the mediating role of perceived hedonic values (enjoyment) and utilitarian values (convenience, ease of use, and usefulness) on attitudes toward technology shopping and purchase intentions (Jessen et al., 2020).

Immersion and Enjoyment have a significant effect on Purchase Intention moderated by Narcissism. By superimposing virtual goods over a user's face or environment, augmented reality (AR) applications expand the scope of the customer experience. This study sought to investigate three underlying mechanisms (spatial presence, perceived personalization, and perceived intrusiveness) that might account for the persuasiveness of AR applications. In two tests, we contrasted AR and non-AR apps. In Study 1, a user's face is enhanced with virtual cosmetics via an application, whereas in Study 2, virtual cosmetics are displayed in the user's environment (furniture).

# 3. Research Methodology Model and Hypotheses

This study uses a causal research design because it aims to obtain causal evidence between research variables consisting of vividness, media novelty, information quality, immersion, enjoyment, utilitarian value, body image perception, narcissism, and purchase intention. This study used the Structural Equation Model (SEM) analysis technique and data collection method using a questionnaire with a total of 162 respondents. Respondents in this study were people who had made transactions at online stores.

Measures. The questionnaire was designed to study five variables, three independent variable, one dependent variable, three intervening variables, and two variables moderating. The following variables are included in the model: Interactivity to Immersion, Vividness to Immersion, Media Novelty to Immersion, Interactivity to Enjoyment, Vividness to Enjoyment, Media Novelty to Utilitarian Value, Enjoyment to Purchase Intention, Utilitarian Value to Purchase Intention, Interactivity to Purchase Intention, Vividness to Purchase Intention.

Theoretically, the concept of this research refers to the SOR model, namely the stimulus conceptualized as influences that affect the internal organism individual. An organism is represented

by cognitive and affective processes that mediate the connection between a stimuli and a person's responses. Reaction is the outcome of the behavioral strategy used by consumers (Chang and Chen, 2021). In this study, the hypothesis used was formulated into 9 variables. Hypothesis these are as follows:

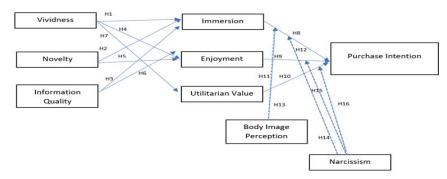


Fig. 1: Research Model

- H1: Vividness has a significant effect on Immersion.
- H2: Novelty has a significant effect on Immersion.
- H3: Information Quality has a significant effect on Immersion.
- H4: Vividness has a significant effect on Enjoyment.
- H5: Novelty has a significant effect on Enjoyment.
- H6: Information Quality has a significant effect on Enjoyment.
- H7: Vividness has a significant effect on Utilitarian Value.
- H8: Immersion has a significant effect on Purchase Intention.
- H9: Enjoyment has a significant effect on Purchase Intention.
- H10: Utilitarian Value has a significant effect on Purchase Intention.
- H11: Body Image Perception has a significant effect on Purchase Intention.
- H12: Narcissism has a significant effect on Purchase Intention.
- H13: Immersion has a significant effect on Purchase Intention moderated by body image perception.
- H14: Immersion has a significant effect on Purchase Intention moderated by Narcissism.
- H15: Enjoyment has a significant effect on Purchase Intention moderated by Narcissism.
- H16: Utilitarian Value has a significant effect on Purchase Intention moderated by Narcissism.

### 4. Result and Discussion

#### 4.1. Results

### 4.1.1 Characteristics of Respondents

The description of the respondents in the study consisted of Gender, Age, Place of Residence, Occupation, Education, and Monthly Expenses who participated in this study can be presented in Table 1. below:

Table 1: Respondent Demographics

Information	Frequency	Percentage
Gender		
Man	48	70%
Woman	114	30%
Total	162	100%
Age		

	1		
< 20 years	10	6%	
20-30 years	10	6%	
31 – 40 years	49	30%	
41 – 50 years	67	42%	
≥50 years	26	16%	
Total	162	100%	
Residence			
Banten	41	25%	
Yogyakarta	1	1%	
DKI Jakarta	76	47%	
West Java	24	15%	
Central Java	13	8%	
East Java	4	2%	
West Kalimantan	1	1%	
South Sulawesi	1	1%	
Sumatra	1	1%	
Total	162	100	
Based on Occupation			
Lecturer	26	16%	
Self-employed	62	38%	
Private sector employee	25	16%	
civil servant	2	1%	
Other	47	29%	
Total	162	100	

# **4.1.2** Reliability and Validity of Measures

Since the research variables were measured using a variety of indicators, validity and reliability tests were conducted. There are 5 variables in this study, including website quality, website brand, trust, perceived risk, and purchasing decision variables. If the significance level is less than 5.0 percent, data are considered legitimate. The indicators in this study are indicators of the variables since, in research, the probability value of each indicator is lower at a significant level of 5.0 percent. Test reliability is demonstrated by the Cronbach Alpha value of the website quality variable, variable brand website, trust variable, risk perception variable and decision variable purchase in accordance with the terms of Cronbach's Alpha value  $\geq 0.60$ . On research, value Alpha Cronbach  $\geq 0.60$ . This means, the instrument for the variables in this study is reliable. The results of validity and reliability can be seen in Table 1. Structural Model Evaluation and Multiple Group Comparison After doing the Calculate PLS Algorithm, the results of the PLS model are obtained as follows:

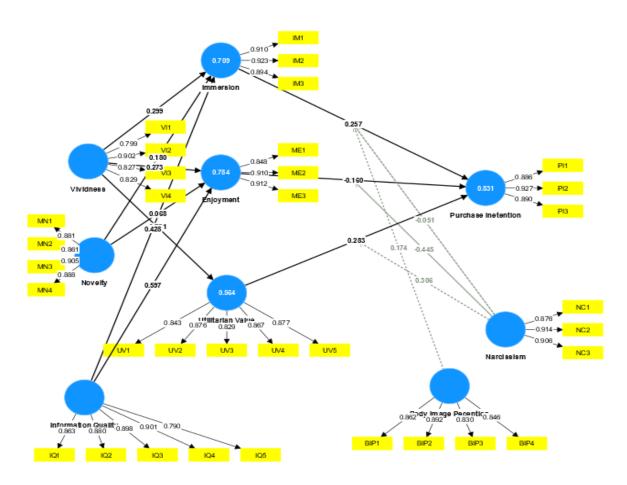


Fig. 2: PLS Algorithm Output Source: Researcher (2023)

In this study the Partial Least Square method will be used to calculate the outer model and the inner model will be explained as follows:

### **Calculating the Measurement Model (Outer)**

#### Outer Loading

The convergent validity of the measurement model with reflective indicators can be seen from the correlation between the indicator values and the construct values. Outer Model measurement to determine each indicator in the yellow box in Figure 4.3 for each indicator: VI: Vividness, MN: Media Novelty, IQ: Information Quality, IM: Immersion, ME: Enjoyment, UV: Utilitarian Value, BIP: Body Image Perception, NC: Narcissism, PI: Purchase Intention.

The vividness indicator is shown in VI1-VI4. Media Novelty indicators are shown at MN1-MN4. Information Quality indicators are shown on IQ1-IQ5. Immersion indicators are shown on IM1-IM3. The Enjoyment indicator is shown on ME1-ME3. The Utilitarian Value indicator is shown at UV1-UV5. The Body Image Perception indicator is shown on BIP1-BIP4. Narcissism indicators are shown in NC1-NC3. Purchase Intention indicators are shown in PI1-PI3.

### **Outer Loading Results**

1. Purchase Intention Variable

Table 2: Outer Loading Purchase Intention Results

Indicator	Outer Loading	Validity
PI1	0,886	VALID
PI2	0,927	VALID
PI3	0,890	VALID

Source: Researcher (2023)

From the results of the analysis in table 2, we can see that Purchase Intention has an outer loading value of more than (>) 0.7, such that it may be argued that all indicators of purchase intent are accurate. Because they have greater than a certain outer loading amount 0.7.

# 2.Body Image Perception Variable

Table 3: Outer Loading Body Image Perception Results

		_
Indicator	Outer Loading	Validity
BIP1	0,862	VALID
BIP2	0,892	VALID
BIP3	0,830	VALID
BIP4	0,846	VALID

Source: Researcher (2023)

From the results of the analysis in table 3, we can see that Body Image Perception has an outer loading value of more than (>) 0.7, because it has an outside loading value greater than 0.7, it may be concluded that all indications of body image perception are valid.

#### 3.Immersion Variable.

Table 4: Outer Loading Immersion Results

 Indicator	Outer Loading	Validity	
IM1	0,910	VALID	
IM2	0,923	VALID	
IM3	0,894	VALID	

Source: Researcher (2023)

Table 4, findings from the analysis mentioned above show that Immersion has an outer loading value of more than (>), which means that all Immersion indicators are valid because they have an outer loading value of more than 0.7.

# 5. Information Quality Variable

Table 5: Outer Loading Information Quality Results

Indicator	Outer Loading	Validity
IQ1	0,863	VALID
IQ2	0,880	VALID
IQ3	0,898	VALID
IQ4	0,901	VALID
IQ5	0,790	VALID

Source: Researcher (2023)

From the results of the analysis of table 5, we can see that Information Quality has an outer loading value of more than (>) 0.7, This indicates that since each Information Quality indicator has an outer loading value greater than 0.7, they can all be considered legitimate.

# 6.Enjoyment Variable

Table 6: Outer Loading Enjoyment Results

Indicator	Outer Loading	Validity
ME1	0,848	VALID
ME2	0,910	VALID
ME3	0,912	VALID

Source: Researcher (2023)

From the results of the analysis above in table 6, we can see that Enjoyment has an outer loading value of more than (>) 0.7, which means that all Enjoyment indicators can be said to be valid because they have an outer loading value of more than 0.7.

# 7. Media Novelty Variable

Table 7: Outer Loading Media Novelty Results

	_	*
Indicator	Outer Loading	Validity
MN1	0,881	VALID
MN2	0,861	VALID
MN3	0,905	VALID
MN4	0,888	VALID

Source: Researcher (2023)

Table 7, analysis results show that Media Novelty has an outer loading value of more than (>), which means that all of its indicators may be said to be valid because it has an outer loading value of more than 0.7.

### 8. Narcissism Variable

Table 8: Results of Outer Loading Narcissism

Indicator	Outer Loading	Validity
NC1	0,876	VALID
NC2	0,914	VALID
NC3	0,906	VALID

Source: Researcher (2023)

Table 8, analysis results show that Narcissism has an outer loading value of more than (>), which means that all of its indicators may be said to be valid because it has an outer loading value of more than 0.7.

# 9. Utilitarian Value Variable

Table 9: Results of Outer Loading Utilitarian Value

Indicator	Outer Loading	Validity
UV1	0,843	VALID
UV2	0,876	VALID
UV3	0,829	VALID
UV4	0,867	VALID
UV5	0,877	VALID

Source: Researcher (2023)

Table 9, analysis results show that Media Novelty has an outer loading value of more than (>), which means that all of its indicators may be said to be valid because it has an outer loading value of more than 0.7.

#### 10. Vividness.

Table 10: Outer Loading Vividness Results

Indicator	Outer Loading	Validity
VI1	0,799	VALID
VI2	0,902	VALID
VI3	0,827	VALID
VI4	0,829	VALID

Source: Researcher (2023)

From the results of the analysis of table 10, we can see that Vividness has an outer loading value of more than (>) 0.7, It signifies that all Vividness indicators have an outside loading value greater than 0.7, making them all genuine.

# • Average Variance Extracted (AVE)

The Average Variance Extracted value on the variable must be higher than 0.5. The following are the test results from the Average Variance Extracted (AVE):

Table 11: Average Variance Extracted Results

	Average variance extracted (AVE)
BIP	0,736
ME	0,793
IM	0,827
IQ	0,752
NC	0,808
MN	0,781
PI	0,812
UV	0,737
VI	0,706

Source: researcher (2023)

From the results of the analysis in table 11, it can be seen that Each variable's Average Variance Extracted (AVE) value is more than 0.5.

### • Cross Loading

The measurement standard for assessing validity is carried out with a cross loading value greater than 0.7 so that it is declared valid (Ghozali & Latan, 2016). The following are the results of the cross loading test in this study:

Table 12: Cross Loading Results

Source: Researcher (2023)

	BIP	ME	IM	IQ	NC	MN	PI	UV	VI	NC*I M	NC*U V	NC*M E	BIP*I M
BIP1	0,862	0,686	0,682	0,673	0,728	0,615	0,799	0,743	0,628	-0,421	-0,417	-0,473	-0,422
BIP2	0,892	0,770	0,711	0,773	0,750	0,739	0,760	0,753	0,725	-0,354	-0,393	-0,375	-0,463
BIP3	0,830	0,672	0,601	0,664	0,682	0,686	0,645	0,645	0,574	-0,273	-0,267	-0,277	-0,308
BIP4	0,846	0,573	0,654	0,553	0,641	0,532	0,686	0,666	0,582	-0,376	-0,419	-0,451	-0,424
IM1	0,644	0,760	0,910	0,729	0,636	0,640	0,731	0,726	0,703	-0,373	-0,346	-0,363	-0,313
IM2	0,715	0,757	0,923	0,756	0,700	0,673	0,740	0,775	0,731	-0,495	-0,482	-0,490	-0,487
IM3	0,755	0,757	0,894	0,715	0,671	0,696	0,704	0,740	0,673	-0,402	-0,370	-0,371	-0,411
IQ1	0,757	0,762	0,686	0,863	0,675	0,745	0,712	0,730	0,714	-0,417	-0,471	-0,456	-0,528
IQ2	0,647	0,728	0,747	0,880	0,654	0,670	0,678	0,712	0,703	-0,443	-0,466	-0,480	-0,462
IQ3	0,679	0,792	0,717	0,898	0,664	0,642	0,644	0,715	0,635	-0,333	-0,346	-0,345	-0,339
IQ4	0,698	0,774	0,711	0,901	0,700	0,696	0,638	0,766	0,718	-0,409	-0,410	-0,411	-0,427
IQ5	0,590	0,699	0,632	0,790	0,628	0,639	0,625	0,631	0,685	-0,218	-0,196	-0,211	-0,213
ME1	0,734	0,848	0,727	0,702	0,666	0,643	0,661	0,767	0,672	-0,401	-0,476	-0,451	-0,479
ME2	0,700	0,910	0,759	0,805	0,749	0,635	0,703	0,809	0,704	-0,397	-0,394	-0,397	-0,400
ME3	0,679	0,912	0,741	0,805	0,777	0,689	0,657	0,796	0,754	-0,314	-0,324	-0,324	-0,339
MN1	0,654	0,652	0,597	0,705	0,521	0,881	0,554	0,588	0,622	-0,313	-0,266	-0,257	-0,340
MN2	0,612	0,566	0,600	0,605	0,484	0,861	0,482	0,564	0,586	-0,310	-0,251	-0,240	-0,364
MN3	0,667	0,665	0,682	0,687	0,583	0,905	0,541	0,645	0,636	-0,355	-0,357	-0,324	-0,414
MN4	0,709	0,708	0,712	0,757	0,627	0,888	0,653	0,729	0,758	-0,444	-0,447	-0,455	-0,521
NC1	0,765	0,659	0,554	0,639	0,876	0,583	0,652	0,710	0,559	-0,165	-0,307	-0,294	-0,319
NC2	0,757	0,796	0,736	0,735	0,914	0,584	0,796	0,824	0,599	-0,312	-0,344	-0,375	-0,363
NC3	0,687	0,749	0,680	0,686	0,906	0,535	0,716	0,719	0,624	-0,218	-0,277	-0,302	-0,298
PI1	0,688	0,651	0,698	0,667	0,745	0,525	0,886	0,688	0,590	-0,236	-0,298	-0,350	-0,270
PI2	0,751	0,725	0,752	0,742	0,727	0,587	0,927	0,786	0,613	-0,356	-0,317	-0,381	-0,311
PI3	0,844	0,667	0,705	0,646	0,711	0,600	0,890	0,757	0,623	-0,356	-0,351	-0,407	-0,400
UV1	0,677	0,730	0,612	0,627	0,712	0,560	0,659	0,843	0,618	-0,264	-0,368	-0,369	-0,397
UV2	0,676	0,752	0,720	0,702	0,722	0,579	0,731	0,876	0,611	-0,390	-0,344	-0,392	-0,406
UV3	0,644	0,701	0,720	0,686	0,656	0,556	0,747	0,829	0,641	-0,378	-0,343	-0,423	-0,357
UV4	0,758	0,767	0,734	0,714	0,746	0,718	0,700	0,867	0,669	-0,380	-0,385	-0,383	-0,468
UV5	0,769	0,860	0,734	0,790	0,767	0,668	0,707	0,877	0,681	-0,404	-0,450	-0,424	-0,469
VI1	0,562	0,662	0,594	0,647	0,564	0,555	0,494	0,580	0,799	-0,227	-0,205	-0,221	-0,216
VI2	0,651	0,729	0,719	0,741	0,602	0,648	0,643	0,688	0,902	-0,464	-0,404	-0,422	-0,434
VI3	0,648	0,644	0,598	0,646	0,565	0,634	0,549	0,641	0,827	-0,224	-0,264	-0,255	-0,321
VI4	0,603	0,642	0,677	0,635	0,489	0,648	0,576	0,610	0,829	-0,439	-0,432	-0,434	-0,497
NC*IM	0,419	0,415	0,466	0,422	0,263	0,406	0,353	0,425	0,409	1,000	0,859	0,861	0,900
NC*UV	0,440	0,444	0,440	0,439	0,345	0,380	0,358	0,440	0,392	0,859	1,000	0,962	0,916
NC*ME	0,464	0,437	0,450	0,442	0,363	0,367	0,422	0,464	0,401	0,861	0,962	1,000	0,894
BIP*IM	0,475	0,454	0,445	0,457	0,365	0,468	0,366	0,489	0,441	0,900	0,916	0,894	1,000

Notes: VI: Vividness, MN: Media Novelty, IQ: Information Quality, IM: Immersion, ME: Enjoyment, UV: Utilitarian Value, BIP: Body Image Perception, NC: Narcissism, PI: Purchase Intention

From Tabel 12, it can be concluded that:

- 1. Each indicator for the vividness variable has a cross loading value that is higher than the indicator value for the other variables.
- 2. The indicator value for each Media Novelty variable cross loading is higher than the indicator value for the other variables.
- 3. Each indicator for the Information Quality variable has a cross loading value that is higher than the indicator value for the other variables.
- 4. Each indicator value for the Immersion variable has a cross loading value that is higher than the indicator value for the other variables.
- 5. The cross-loading value of each indicator belonging to the Enjoyment variable is greater than the indicator value of the other variables.
- 6. The cross-loading value of each indicator of the Utilitarian Value variable is greater than the indicator value of the other variables.
- 7. The cross-loading value of each indicator belonging to the Body Image Perception variable is greater than the indicator values of the other variables.
- 8. The cross-loading value of each indicator of the Narcissism variable is greater than the indicator value of the other variables.
- 9. The cross-loading value of each indicator belonging to the Purchase Intention variable is greater than the indicator value of the other variables.

Based on table 4.20, it can be concluded that all marked variables and indicators are able to predict higher indicators than indicators in other blocks because the cross loading is greater than 0.7 so that they are declared valid.

### • Composite Reliability

To test the reliability, each variable must be greater than 0.7. The following are the results of the research in the reliability test:

Table 13: Composite Reliability Results Source: Researcher (2023)

	Composite reliability (rho_a)
BIP	0,886
ME	0,872
IM	0,896
IQ	0,919
NC	0,890
MN	0,912
PI	0,886
UV	0,911
VI	0,865

It is clear from the information in table 13, that the composite reliability value for all research variables is more than 0.70. This shows that all research variables have met composite reliability and have a high reliability value, because the composite reliability value is > 0.7.

# Cronchbach's Alpha

In the cronbach;s alpha test, each variable must have a value greater than 0.7. And the following results of the reliability test in the study are as follows:

Table 14: Results of Croncbanch's

	Cronbach's alpha
BIP	0,880

ME	0,869
IM	0,895
IQ	0,917
NC	0,881
MN	0,907
PI	0,884
UV	0,911
VI	0,860

Source: Researcher (2023)

Based on table 14, Cronbach's Alpha value > 0.60, the question items in the questionnaire are reliable or it can be concluded that all indicators are reliable.

### • Structural Model (Inner)

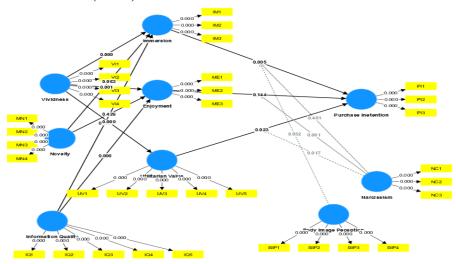


Fig. 2: Bootstrapping Output Source: Researcher (2023)

Hypothesis testing using SmartPLS 4.0 software with boostrapping as follows:

# **R Square**

Table 15: R Square Results

	R-square
MN	0,784
IM	0,709
PI	0,831
UV	0,564

Source: Researcher (2023)

From the results of the R-Square output (Table 15), the R-Square value is 0.709, it can be said that the influence of the variables Vividness (X1), Media Novelty (X2), Information Quality (X3), on Immersion (Y1) is 70.9 % while the remaining 29.1% is influenced by other variables outside this study which cannot be explained by independent variables or can be explained by variables outside the

independent variable (error component).

From the results of the R-Square output (Table 15), the R-Square value is 0.784, it can be said that the influence of the variables Vividness (X1), Media Novelty (X2), Information Quality (X3), on Enjoyment (Y2) is 78.4% while the remaining 21.6% is influenced by other variables outside this study which cannot be explained by independent variables or can be explained by variables outside the independent variable (error component).

From the results of the R-Square output (Table 15), an R-Square value of 0.564 can be said that the effect of the Vividness variable (X1) on the Utilitarian Value (Y3) is 56.4% while the remaining 43.6% is influenced by other variables outside the research this cannot be explained by the independent variable or can be explained by variables outside the independent variable (error component).

From the results of the R-Square output (Table 15), the R-Square value is 0.831, it can be said that the influence of the variables Vividness (X1), Media Novelty (X2), Information Quality (X3), Immersion (Y1), Media Enjoyment (Y2), Utilitarian Value (Y3), to Purchase Intention (Z) of 83.1% while the remaining 26.9% is influenced by other variables outside this study which cannot be explained by independent variables or can be explained by variables outside the independent variables (error component).

#### 4.2. Discussion

The aim of this study is to understand consumers' purchase intention in shopping online. Using the SOR framework as our theoretical lens, we hide the role. The user's self-presence (stimulus) in purchase intention (response) in e-commerce AR Applications by considering immersion, enjoyment and benefit value (organism).

The bootstrapping approach enjoyment to ascertain the interaction between variables. A nonparametric representation of estimate precision is provided by approach bootstrap. In the PLS approach, the significance value (P Value) and the value of the T-table are used to determine whether to accept or reject a hypothesis. By examining the parameter coefficient value and the statistical significance value of t in the SmartPLS 4.0 application, the significance value may be determined. If the t-value exceeds 1.96 and the p-value, at a significant threshold of 5%, is less than 0.05 (5%), the hypothesis is accepted and the alternative is rejected; otherwise, the hypothesis is accepted, and the alternative is rejected. The following are the hypotheses proposed in this study:

Hypothesis 1: Vividness' relationship with Immersion

From testing the results of the research, there is a positive and significant influence between Vividness on Immersion in the AR Application of Written Batik Clothing. This is consistent with the results of the path coefficients with an original sample value of 0.299 which indicates a positive number with a t-count value of 3.7520 greater than the t-table value of 1.96 or it can be seen from the p-value of 0.00 which is less than 0.05 so that it can be said that the Vividness variable has a significant effect on the Immersion variable. These results can be interpreted that the better the Vividness, the immersion will increase, and vice versa if the Vividness is bad, then the Immersion in the AR Application of Batik Written Clothing will be low. This study is under previous research, from a technological perspective, vividness is known to be enhanced by enriching Immersion, referring to the quality of information represented as perceived by media users, and breadth, referring to the number of sensory dimensions that can be provided by communication media (Yim et al., 2017) (McLean & Wilson, 2019). vividness generates various positive consumer evaluations through increased immersion. Consistent with findings in AR glasses and watches.

Hypothesis 2: Novelty's Relationship with Immersion

From testing the results of the research, there is a positive and significant influence between Novelty and Immersion in the AR Application of Written Batik Clothing. This is consistent with the results of the path coefficients with an original sample value of 0.180 which indicates a positive number with a t-count value of 1.859 which is less than the t-table value of 1.96 or can be seen from the p-value of 0.063

which is greater than 0.05. The novelty variable has no significant effect on the Immersion variable. Novelty's ups and downs don't really affect immersion in the AR Application of Written Batik Clothes.

### Hypothesis 3: Relationship of Information Quality with Immersion

From testing the results of the research, there is a positive and significant influence between Information Quality on Immersion in the AR Application of Written Batik Clothing. This is consistent with the results of the path coefficients with an original sample value of 0.428 which indicates a positive number with a t-count value of 3.525 greater than the t-table value of 1.96 or it can be seen from the p-value of 0.000 which is less than 0.05 so that it can be said the Information Quality variable has a significant effect on the Immersion variable. These results can be interpreted that the better the Information Quality, the immersion will increase and conversely, if the Information Quality is bad, then the Immersion in the AR Application of Written Batik Clothing will be low. This research is by previous research, the results of the study show that customer feelings can be created based on several stimulus information quality provided by AR applications on smartphones, when users use AR applications users feel present in the real world (Pantano et al., 2017)

### Hypothesis 4: Relationship of Information Quality with Immersion

From testing the results of the research, there is a positive and significant influence between Information Quality on Immersion in the AR Application of Written Batik Clothing. This is consistent with the results of the path coefficients with an original sample value of 0.428 which indicates a positive number with a t-count value of 3.525 greater than the t-table value of 1.96 or it can be seen from the p-value of 0.000 which is less than 0.05 so that it can be said the Information Quality variable has a significant effect on the Immersion variable. These results can be interpreted that the better the Information Quality, the immersion will increase and conversely, if the Information Quality is bad, then the Immersion in the AR Application of Written Batik Clothing will be low. This research is by previous research, the results of the study show that customer feelings can be created based on several stimulus information quality provided by AR applications on smartphones, when users use AR applications users feel present in the real world (Pantano et al., 2017).

### Hypothesis 5: Relationship of Information Quality with Immersion

From testing the results of the research, there is a positive and significant influence between Information Quality on Immersion in the AR Application of Written Batik Clothing. This is consistent with the results of the path coefficients with an original sample value of 0.428 which indicates a positive number with a t-count value of 3.525 greater than the t-table value of 1.96 or it can be seen from the p-value of 0.000 which is less than 0.05 so that it can be said the Information Quality variable has a significant effect on the Immersion variable. These results can be interpreted that the better the Information Quality, the immersion will increase and conversely, if the Information Quality is bad, then the Immersion in the AR Application of Written Batik Clothing will be low. This research is by previous research, the results of the study show that customer feelings can be created based on several stimulus information quality provided by AR applications on smartphones, when users use AR applications users feel present in the real world (Pantano et al., 2017)

# Hypothesis 6: Relationship between Information Quality and Enjoyment

From testing the results of the research, there is a positive and significant influence between Information quality on Enjoyment in the AR Application of Written Batik Clothing. This is consistent with the results of the path coefficients with an original sample value of 0.597 which indicates a positive number with a t-count value of 4.840 greater than the t-table value of 1.96 or it can be seen from the p-value of 0.000 which is less than 0.05 so that it can be said the Information Quality variable has a significant effect on the Enjoyment variable. These results can be interpreted that the better the Information Quality, the Enjoyment will increase and conversely, if the Information Quality is bad, then the Enjoyment of the AR Application for Written Batik Clothing will be low.

This research is in line with previous research, applying an information system success model to examine the antecedents that influence mobile technology adoption, specifically focusing on consumer perceptions of AR quality and its effect on perceived enjoyment and consumer satisfaction when using AR technology. In addition, this study examines how enjoyment and perceived satisfaction affect one's desire for a product. The study participants were 283 shoppers in Korea who had previously experienced mobile shopping, with data collected via an online survey. The results of the study show that when using AR, (1) consumer perceptions of information quality and visual quality positively affect perceived satisfaction (Perannagari, 2020).

Hypothesis 7: Relationship between Vividness and Utilitarian Value.

From testing the results of the study, there is a positive and significant influence between Vividness on Utilitarian value in the AR Application of Written Batik Clothing. This is consistent with the results of the path coefficients with an original sample value of 0.751 which indicates a positive number with a t-count value of 17.233 greater than the t-table value of 1.96 or it can be seen from the p-value of 0.000 which is less than 0.05 so that it can be said the Vividness variable has a significant effect on the Utilitarian value variable. These results can be interpreted as the better the Vividness.

then the Utilitarian Value will increase and vice versa if the Vividness is bad then the Utilitarianism of the AR Application of Written Batik Clothing will be low. This research is to previous research, a study conducted using virtual AR mirrors found that the effect of clarity on utilitarian value is a positive impact and reveals that AR mirrors acquire more utilitarian value than spatial presence arising from environmental planting (Hilkenet al., 2017).

Hypothesis 8: Relationship between Immersion and Purchase Intention.

From testing the results of the research, there is a positive and significant influence between Immersion on Purchase Intention on the AR Application of Written Batik Clothing. This is consistent with the results of the path coefficients with an original sample value of 0.257 which indicates a positive number with a t-count value of 2.827 greater than the t-table value of 1.96 or it can be seen from the p-value of 0.005 which is less than 0.05 so that it can be said the Immersion variable has a significant effect on the Purchase Intention variable. These results can be interpreted that the better the Immersion. then the Purchase Intention will increase and vice versa if Immersion is bad, the Purchase Intention for the AR Application for Written Batik Clothing will be low. This research is under previous research, the results of the study show that Immersion has a significant effect on Online Shopping Intentions. Perceived enjoyment can be defined as the level of satisfaction consumers feel during an online purchase at a particular website, in terms of its ability to bring them happiness while excluding the performance they will experience. The more enjoyable the online shopping process is at a particular website, the more likely it is that consumers will purchase at that website (Baek et al., 2018).

Hypothesis 9: Enjoyment Relationship with Purchase Intention.

From testing the research results, Path coefficients with an original sample value of -0.160 indicate a negative number. The enjoyment statistic value for purchase intention is 1.460 which is less than the t-table value of 1.96 or it can be seen from the p-value which is 0.144 which is greater than 0.05. Thus it is said that the Enjoyment variable has no significant effect on the Purchase intention variable. An increase or decrease in Enjoyment does not affect Purchase Intention.

Hypothesis 10: Relationship between Utilitarian Value and Purchase Intention.

From testing the results of the research, there is a positive and significant influence between Utilitarianism on Purchase Intention on the AR Application of Written Batik Clothing. This is consistent with the results of the path coefficients with an original sample value of 0.283 which indicates a positive number with a t-count value of 2.267 greater than the t-table value of 1.96 or it can be seen from the p-value of 0.023 is less than 0.05 so that it can be said the Utilitarian Value variable has a significant effect on the Purchase Intention variable. These results can be interpreted that the better the Utilitarian

Value, the Purchase Intention will increase and conversely, if the Utilitarian Value is bad, the Purchase Intention for the AR Application of Written Batik Clothing will be low. This research is by previous research, utilitarian value has a significant and positive effect on purchase intention. Utilitarian value has a significant and positive effect on satisfaction and purchase intention. Augmented reality is a new technological breakthrough that helps e-commerce provide an online shopping experience with the quality of offline shopping. This is possible due to the ability of augmented reality technology which allows consumers to interact and try products in the virtual world (Yim et al., 2017)(Scholz & Duffy, 2018)(Jessen et al., 2020).

Hypothesis 11: Relationship between Body Image Perception and Purchase Intention.

From testing the results of the research, there is a positive and significant influence between Body Image Perception on Purchase Intention on the AR Application of Written Batik Clothing. This is consistent with the results of the path coefficients with an original sample value of 0.384 which indicates a positive number with a t-count value of 4.615 greater than the t-table value of 1.96 or it can be seen from the p-value of 0.000 which is less than 0.05 so that it can be said the Body Image Perception variable has a significant effect on the Purchase Intention variable. These results can be interpreted that the better the Body Image Perception, the Purchase Intention will increase and conversely if the Body Image Perception is bad, the Purchase Intention for the AR Application of Written Batik Clothing will be low. This research is under previous studies, mobile applications with virtual test tools based on augmented reality compared to traditional m-commerce interfaces which show models with consumer views influence purchase intentions. Online experiments (415 respondents) and qualitative studies (49 respondents) show that the existence of Virtual AR using the physical appearance of consumers will increase the intention to buy online (Yim & Park, 2019a).

Hypothesis 12: Relationship between Narcissism and Purchase Intention

From testing the research results, there is a positive and significant influence between Narcissism and Purchase Intention on the AR Application of Written Batik Clothing. This is consistent with the results of the path coefficients with an original sample value of 0.213 which indicates a positive number with a t-count value of 2.594 greater than the t-table value of 1.96 or it can be seen from the p-value of 0.009 which is less than 0.05 so that it can be said the Narcissism variable has a significant effect on the Purchase Intention variable. These results can be interpreted that better Narcissism, then the Purchase Intention will increase and vice versa if Narcissism, bad, the Purchase Intention for the AR Application for Written Batik Clothing will be low. This study is by previous studies, in two trials comparing AR applications with non-AR applications. Study 1 uses an application that adds a user's face with virtual products (make-up), while Study 2 uses an application that displays virtual products in a person's surroundings (furniture). The results show that perceived spatial presence and personalization can explain positive persuasive responses to AR applications. For applications that augment the user's face with virtual products, perceived personalization increases purchase intention (Baek et al., 2018).

Hypothesis 13: Immersion Relationship with Purchase Intention through Body Image Perception

From testing the research results, there is a positive and significant influence between Immersion and Purchase Intention on the AR Application of Written Batik Clothing. This is consistent with the results of the path coefficients with an original sample value of 0.174 which indicates a positive number with a t-statistics value of 2.151 greater than 1.96 and a p-value of 0.032 smaller than 0.05. So that it can be said that the variable Body Image Perception has a significant effect on the Purchase Intention variable with Body Image Perception as the moderating variable. Customers who intend to buy the AR Application of Written Batik Clothing are people who have experienced or had a good experience as a result of the immersion that has been formed in the AR Application of Written Batik Clothing.

Hypothesis 14: Immersion Relationship with Purchase Intention through Narcissism

From testing the results of the study, there was no positive and significant influence between

Immersion and Purchase Intention on the AR Application of Written Batik Clothing. This is to the results of the path coefficients with the original sample value - 0.051 which indicates a negative number with a t-statistics value of 0.704 greater than 1.96 and a p-value of 0.481 greater than 0.05. So that it can be said that the Immersion variable has no significant effect on the Purchase Intention variable with Narcissism as the moderating variable. Customers who intend to buy on the Written Batik Clothing AR Application are people who have felt or have their desires not caused by the immersion that has been formed on the Written Batik Clothing AR Application

Hypothesis 15: Enjoyment Relationship with Purchase Intention through Narcissism

From testing the results of the study, there is a positive and significant influence between Enjoyment on Purchase Intention on the AR Application of Written Batik Clothing. This is consistent with the results of the path coefficients with an original sample value of 0.306 which indicates a positive number with a t-statistics value of 2.381 greater than 1.96 and a p-value of 0.017 less than 0.05. So that it can be said that the narcissism variable has a significant effect on the Purchase Intention variable with Narcissism as the moderating variable. Customers who intend to buy on the Written Batik Clothing AR Application are people who have felt or had a good experience caused by the pleasure that has been formed on the Written Batik Clothing AR Application

Hypothesis 16: Relationship between Utilitarian Value and Purchase Intention through Narcissism.

From testing the results of the research, there is a positive and significant influence between Utilitarian Value on Purchase in the AR Application of Written Batik Clothing. This is by the results of the path coefficients with the original sample value - 0.445 which indicates a negative number with a t-count value of 3.442 greater than the t-table value of 1.96 or it can be seen from the p-value of 0.001 which is smaller than 0.05. it is said that the narcissism variable has a significant effect on the Purchase Intention variable with Narcissism as the moderating variable. Customers who intend to buy the AR Application for Batik Written Clothing are people who have value for the use and drive the needs that are felt in the AR Application for Written Batik Clothes.

# 4.2.1. Theoretical Implications

The study provides several theoretical implications. First, the results of this study contribute to the literature on AR adoption, specifically the object is batik in terms of variables observed from two perspectives, namely AR augmentation with the user's self, namely attention theory with self-viewing and AR technology performance. Second, develop models and prototypes of online purchasing systems using AR technology which can be used as references for other researchers to continue to develop in line with developments in online purchasing and AR. Third, the evaluation results of the model and prototype of the online purchasing system on Batik Written Visualization using AR Technology can be used as a reference for researchers and readers.

# **4.2.2. Practical Implications**

First, contribution to society, where the results of this study are to evaluate products according to user intentions, namely with the AR platform that displays hand-drawn batik clothes augmented to the user to provide a different experience with the hope that purchase intentions will increase. Second, contribution to batik business actors, where this research will produce an AR platform for written batik clothing that can be used to increase sales of Indonesian written batik products based on local wisdom.

# 5. Conclusion and Suggestion

The findings from the research results are as follows:

 Vividness has a positive and significant effect on Immersion in the AR Application of Written Batik Clothing. This means that the higher the Vividness, the higher the Immersion. Conversely, the lower the Vividness, the lower the Immersion in the use of the AR Application for Written Batik clothes.

- Novelty has a positive and insignificant effect on Immersion in the AR Application of Written Batik Clothing. This means that the rise or fall of Novelty does not really affect Immersion in the AR Application of Written Batik Clothing.
- Information Quality has a positive and significant effect on Immersion in the AR Application of
  Written Batik Clothing. This means that the higher the Information Quality, the higher the
  Immersion. On the other hand, the lower the novelty, the lower the immersion in using the AR
  application for written batik clothes.
- Vividness has a positive and significant effect on Enjoyment in the AR Application of Written Batik Clothing. This means that the higher the Vividness, the higher the Enjoyment. Conversely, the lower the Vividness, the lower the Enjoyment of using the AR Application for Written Batik clothes.
- Information Quality has a positive and insignificant effect on Immersion in the AR Application of Written Batik Clothing. This means that an increase or decrease in information quality does not really affect immersion in the AR application of written batik clothes.
- Information quality has a positive and significant effect on Enjoyment in the AR Application of Written Batik Clothing. This means that the better the Information Quality, the Enjoyment will increase and vice versa if the Information Quality is bad, then the Enjoyment of the AR Application for Written Batik Clothing will be low.
- Vividness has a positive and significant effect on Utilitarian value in the AR Application of Written Batik Clothing. It means that the higher the Vividness. then the Utilitarian Value will increase and vice versa if Vividness is low then.
- Immersion has a positive and significant effect on Purchase Intention on the AR Application of Written Batik Clothing. It means the better the Immersion. then the Purchase Intention will increase and vice versa if the Immersion is bad then the Purchase Intention for the AR Application for Written Batik Clothing will be low.
- Immersion has a positive and significant effect on Purchase Intention on the AR Application of
  Written Batik Clothing. It means the better the Immersion, then the Purchase Intention will increase
  and vice versa if the Immersion is bad then the Purchase Intention for the AR Application for Written
  Batik Clothing will be low.
- Utilitarian has a positive and significant effect on Purchase Intention on the AR Application of
  Written Batik Clothing. This means that the better the Utilitarian Value, the Purchase Intention will
  increase and vice versa if the Utilitarian Value is bad, the Purchase Intention for the AR Application
  of Written Batik Clothing will be low.
- Body Image Perception has a positive and significant effect on Purchase Intention on the AR
  Application of Written Batik Clothing. This means the better Body Image Perception then the
  Purchase Intention will increase and vice versa if the Body Image Perception is bad then the Purchase
  Intention for the AR Application for Written Batik Clothing will be low.
- Narcissism has a positive and significant effect on Purchase Intention on the AR Application of
  Written Batik Clothing. It means better Narcissism. then the Purchase Intention will increase and
  vice versa if Narcissism is bad then the Purchase Intention for the AR Application of Batik Written
  Clothing will be low.
- Immersion has a positive and significant effect on Purchase Intention which is moderated by Body
  Image Perception on the AR Application of Written Batik Clothing. This means that when the
  influence of the mediator is included in the model, Body Image Perception has a significant influence
  on Purchase Intention.
- Immersion has a negative and insignificant effect on Purchase Intention which is moderated by Narcissism. This means that when the influence of the mediator included in the model shows that Narcissism has no significant effect on Purchase intention.

- Utilitarian Value has a positive and significant effect on Purchase Intention which is moderated by Narcissism. This means that when the influence of Moderation included in the model shows that Narcissism has a significant effect on Purchase Intention.
- Enjoyment media has a positive and significant effect on Purchase Intention which is moderated by Narcissism. This means that the indirect effect of Narcissism on Purchase Intention when included in the model is that Narcissism has a significant influence on Purchase Intention.

### **Suggestions and Limitations**

- Researchers hope that the existing research model can be developed because there are still other
  variables that have not been discussed, so it is still open to conduct research in the Field of
  Augmented Reality-based Online Purchasing by including other variables.
- To increase sales of Batik business actors or sellers use new ways of selling and improve the experience for users in online shopping. The next suggestion from 162 respondents who intend to buy written batik clothes considers the variables that influence the use of the AR Application for Written Batik Clothing on purchase intentions, namely vividness to immersion, information quality to immersion, vividness to enjoyment, Information quality to Enjoyment, Vividness to Utilitarian Value, Immersion to Purchase Intention, Utilitarian Value to Purchase Intention, Body Image Perception to Purchase Intention, Narcissism to Purchase Intention.
- There are several limitations in this study, namely the distribution of online questionnaires. So that the researcher cannot see directly whether the respondent understands each question correctly and answers each question seriously and honestly according to the expectations of the researcher when the respondent fills out the available questionnaire. This is something beyond the control of researchers.

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