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Extended Theory of Planned Behavior (TPB) to Analyze the Batik Purchase Intention of Indonesian Millennials and Gen Z

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ABSTRACT

As the nation's cultural heritage of Indonesia, batik has an important role in the Indonesian economy. This industry provides job opportunities that involve a lot of human resources in it and contributes to the country's foreign exchange through the export of national batik to big countries. Although the development of the batik industry has increased, there are still problems in marketing batik products in Indonesia. These problems can lead to more serious problems such as batik craftsmen leaving the business. These problems must be overcome so that the batik industry can maintain its existence. One of the possible solutions is to understand buying behavior characteristics of the existing consumer groups, which are Millennials and Gen Z. Therefore, the purpose of this research is to use a theoretical framework based on the Planned Behavior Theory (TPB) model by Ajzen (1991) to analyze the relationship between experimental variables and the effect on Indonesian Millennials and Gen Z's intention to buy Batik. The focus area selected was Java Island because that is an area with the largest batik industry center in Indonesia. So, the potential to reach a larger consumer need to be explored. Considering the potential of the new generation's high buying power, Millennials and Gen Z were selected as the subject of this study. A total of 177 respondents from various provinces in Java were involved in filling out an online questionnaire containing measurement items related to the purpose of this study. The next step is processing the data using the Partial Least Square Structural Equation Model (PLS-SEM), which has been widely used in various research disciplines over the last two decades. The results show that the five of six hypotheses tested are acceptable: 1) Attitude towards behavior influences purchase intention; (2) Batik Brand Image influences Attitude towards behavior; (3) Perceived behavior control influences purchase intention; (4) Subjective norm influences purchase intention; (5) attitude mediates the relationship between brand image and purchase intention.

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1. INTRODUCTION

Batik is a well-known and worldwide cultural heritage of Indonesia. On October 2, 2009, UNESCO designated batik as a Masterpiece of The Oral and Intangible Heritage of Humanity. Since then, efforts to develop and protect the existence of batik have been one of the main focuses of the Indonesian government. As the nation's cultural heritage, batik has an important role in the

national economy. The national batik industry has contributed to state revenue because it provides jobs opportunity that involves a lot of human resources. In addition, the national batik industry also contributes to the country's foreign exchange. According to the Indonesian Ministry of Foreign Affairs, the main markets for Indonesian batik exports include big countries like Japan, the United States, and Europe in 2021.

Although the development of the batik industry has

increased, Mubarak (2018) said that the owners of the batik industry experience problems in marketing batik products in the country. Budiarti et al. (2019) also mention that the lack of demand for batik products can cause batik craftsmen to leave their batik business. These problems must be overcome so that the batik industry can maintain its existence as a contributor to the economy and as a nation's culture. Data collected by the Ministry of Industry that batik industry centers in Java reach 101 units and 3,782 business units absorb up to 15,055 workers. So, in this study, the analysis is aimed at batik users who live on the island of Java, which is an area with the largest batik industry center in Indonesia.

Search results from various sources show only a few studies related to buying interest in batik. In fact, there have been many studies related to purchasing intentions in the context of clothing. Therefore, the first thing to do is find out what factors can attract consumers to buy batik. It is in line with the research done by Badgaiyana & Verma (2015), which said that in the world of marketing, intentions and consumer behavior are two things that are related to each other. The customer's background can influence purchase intention. Customer needs and wants often change with age (Kotler & Keller, 2012). The Millennials generation and Gen Z are the new target markets with different buying behavior characteristics from the existing consumer groups. Generation Y, widely known as Millennials, is a generation between generation X and generation Z. According to Grace, their birth years range from the 1980s and early 1990s. Even though Millennials are the closest age to generation Z, they do have some differences. Millennials are often referred to as the Me Generation. This generation is entitled and expects things to be handed to them, leading to the perception of them as self-interested and overconfident. The millennial generation is a potential market segment because of their great consumption potential and extraordinary purchasing power, especially online shopping (Noble et al., 2009). On the other hand, Generation Z refers to those born from 1995 through 2010. This generation is often referred to as digital natives, the Net Generation, or iGeneration. According to Antonio and Astika (2019), marketers was more likely to define this market as a homogenous group even though millennial are diverse distinctive segments that require a unique approach to promotion. The same goes for gen Z as the new generation with high buying power. Therefore, the batik industry needs to understand its market before designing and applying the promotion method.

This research uses a theoretical framework based on the Planned Behavior Theory (TPB) model by Ajzen (1991) to analyze the relationship between experimental variables and the effect on Indonesian Millennial and Gen Z's intention to buy Batik. The Theory of Planned Behaviour (TPB), introduced by Ajzen (1991), is an extension model of the Theory of Reasoned Action, which was previously developed by Ajzen and Fishbein (1977). The TPB model suggests that a certain set of motivational factors, including attitudes towards a behavior, subjective norms, and the additional variable, perceived behavioral control, lead to an intention to perform a behavior (Ajzen, 1991). This theoretical model has been widely used, over

the years, for predicting behavioral intentions in many fields of study. Its general connotation makes it easily adapt from time to time to different contexts in which the analysis is conducted (Tommasetti et al., 2018).

However, several studies made efforts to change the original theoretical model to improve the explanatory power of this theory by adding additional constructs within the TPB model (Kaiser and Scheuthle, 2003; Chen and Tung, 2014; Tommasetti et al., 2018). Therefore, in this research, TPB was modified and was used as a foundation to develop the conceptual model. The extended variable of this study is batik brand image. Brand image is the perception carried out by consumers as reflected in the associations that occur in consumer memory (Kotler & Kevin, 2007). A good brand image will produce various benefits; one of them is increasing consumer purchasing decisions. Thus, the primary objective of this research is to investigate the prediction variables adapted from TPB: attitude towards behavior, subjective norm, perceived behavioral control, and the extended variable, batik brand image, towards Millennials and gen Z purchase intention in Java Island, Indonesia.

2. LITERATURE REVIEW

Research about purchase intention has been conducted in almost every fashion product and industry. But, there is only a little research about batik purchase intention, especially in observing the Millennial and Gen Z. Budiarti et al. (2019) have researched the influence of product innovation on consumer purchase intentions on Batik Tanah Liek's product. Product innovation being researched was product feature innovation, product packaging innovation, product uniqueness innovation, and product competitiveness. The result shows that product competitiveness is the only predictor that significantly affects purchase intention.

Keni et al. (2019) conducted a study related to consumer intention of purchasing batik in Solo and Yogyakarta. The research adopted TPB as the basis for formulating the model. The research used three predictors, namely the interest in buying batik, the satisfaction of batik purchase, and previous batik purchase. A total of 176 batik consumers have filled out a questionnaire with an age range of 17 to 67 years. The results of this study indicate that the three predictors used have a positive relationship to the dependent variable of this study, namely batik purchase intention. This study has not used a moderator variable and needs to develop other variables.

Manalu and Adzimatunur (2020) conducted a study related to the purchase intention of domestic batik compared to imported batik through TPB. The focus of the study was on the ethnocentrism variable, which was believed to influence a domestic market product. Ethnocentrism is a consumer's belief when buying products with a concern about the suitability, morality, and loyalty to the country's products. Price sensitivity and attitude were used as mediator variables. Manalu and Adzimatunur (2020) used six primary constructs: consumer ethnocentrism, price sensitivity, attitude, subjective norm, perceived control behavior, and purchase intention. A total of 200 respondents filled out

the printed questionnaire with a purposive sampling approach. Most of the respondents were from Java, with an age range of 20 to 53 years. As a result, consumer ethnocentrism was found to affect purchase intention significantly. The consumers who have high ethnocentrism also have high intentions to purchase batik products in the country and will not consider whatever price they will pay.

Other sources have confirmed that brand image is a factor that can reinforce the intention to perform a behavior. The research about the effect of brand image and consumer attitudes on purchasing decisions directly and indirectly mediated by intent to purchase has been done by Mubarok (2018). The population in this study were consumers of Batik Jetis Sidoarjo in East Java. A total of 100 persons reached from the judgmental sampling method has filled the questionnaire. The results showed that brand image has a positive and significant direct effect on purchasing decisions; consumer attitudes also have a significant direct effect on purchasing decisions; brand image and consumer attitudes have a positive and significant indirect effect on purchasing decisions through intent to purchase.

Fatimah and Prihandono (2020) added that brand image has a positive and significant influence on purchasing decisions through purchase intention. The research was conducted on Poeniko Batik Pekalongan with 100 participating consumers of that store. According to Fatimah and Prihandono (2020), the better the brand image built, the better consumer purchase intention created. That purchase intention will also have an impact on purchasing decisions.

Antonio and Astika (2019) have done related research on the exploration of batik customer behavior. However, the subject of this research was Non-Javanese Indonesian Millennials. The focus was to study the influence of customer diversity seeking and attitude toward ethnic culture on the purchase intention and willingness to share the batik cloth's positive electronic word of mouth (e-WoM). Social, emotional, and epistemic values were used as the mediator variable. The moderator variable was ethnic embeddedness. As a result, it is found that both customer diversity seeking and attitude toward ethnic culture significantly affect the consumption value. All the variables (social, emotional, and epistemic) have a significantly positive impact on e-WoM and customer purchase intention. On the other side, ethnic embeddedness has proven to have a moderation effect on the epistemic value and social value variables. Moreover, the social value variable was found as the strongest predictor of purchase intention. Therefore, some of the measurement questions in this research will be adapted from Antonio and Astika (2019).

It can be concluded that there is only a little research about batik purchase intention. Whereas to solve the problems in marketing batik products, the batik industry should have a good understanding of what factors influence purchase intention. Furthermore, Millennials and Gen Z are the generations who have powerful buying power that needs to be explored. Several studies have been using TPB to find out what factors affect the batik consumer purchase intention. Moreover, it is confirmed

that brand image is a factor that can reinforce the intention to perform a behavior. Therefore, in this research, TPB was modified and was used as the foundation to develop the conceptual model, and the extended variable of this study is batik brand image.

3. RESEARCH METHODOLOGY

3.1 Hypothesis development

Based on the literature review, the following hypotheses are developed:

H1: attitude has a positive effect on purchase intention.

H2: subjective norms have a positive effect on purchase intention.

H3: perceived behavioral control has a positive effect on purchase intention.

H4: batik brand image has a positive effect on purchase intention.

H5: batik brand image has a positive effect on attitude.

H6: attitude mediates the relationship between brand image and purchase intention.

As shown in Figure 1, the research framework was built based on hypothesis development. The operational definition of each variable and references adopted can be seen in Table 1.

3.2 Research's subject and method

This study required the respondents to fill out the online questionnaire using google form. The questions were adapted from previous researchers, as shown in Table 1. Questionnaire items adapted from previous research are then designed in Indonesian. This study used purposive sampling with the criteria of the respondent are Indonesian Millennials and Gen Z who live on Java Island. After the development of the questionnaire, the pilot study was conducted. The instrument was then tested using validity and reliability testing before sharing it with the target respondent.

The validity test in this study was carried out by comparing the correlation coefficient (r_{count}) for each statement with the correlation coefficient value for $n = 30$ in the t table with a value of $\alpha = 0.05$, namely 0.349. The statement item is said to be valid if the correlation coefficient (r_{count}) is greater than the correlation coefficient in the t table, namely > 0.349 . The result of the validity test found that all items were valid. Furthermore, reliability testing has been done by measuring the value of Cronbach's alpha (α). The higher the coefficient value, the more reliable it is. The questionnaire is said to be reliable if it has a Cronbach's alpha value of more than 0.6 (Hair et al., 2019). Regarding the reliability test, it was found that all items proved to be reliable with the Cronbach's alpha value of more than 0.8, which means that the questionnaire item has high reliability. Thus, the designed questionnaire was used to collect the data. Determination of the number of samples followed the minimum sample criteria based on Hair et al. (2016). The parameters used are R^2 (0.1), $\alpha = 5\%$, and statistical power = 80%, a minimum sample size of 103 is needed. In total, 177 participants consisting of Millennials and Gen Z in Java Island, participated in the online survey. The next step is data cleansing. The

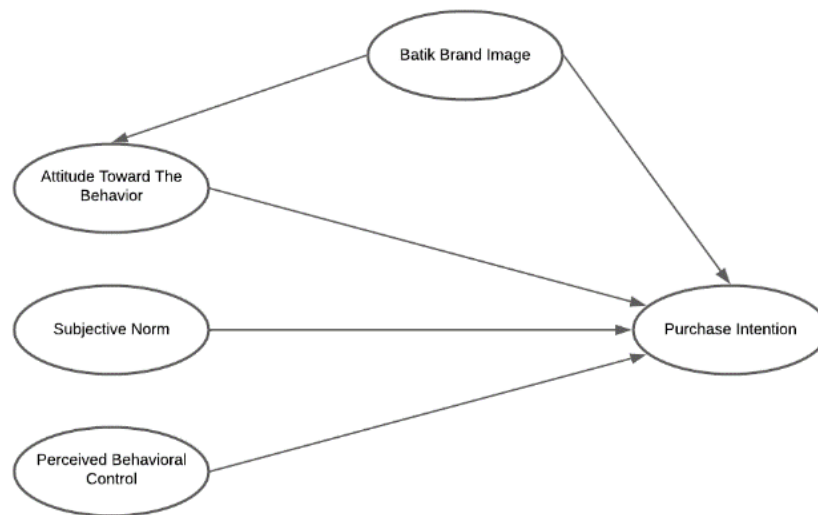


Figure 1. Research's Framework

Table 1. Operational Definition of Variables

| Latent Variable | Operational Definitions | References |
|------------------------------|--|---|
| Attitude | Disposition to respond positively or negatively to a behavior. | Bruner (2010) Manalu & Adzimatunur (2020) |
| Subjective Norms | The perceived social pressure to conduct or not to conduct a behavior. | Ajzen (1991) Manalu & Adzimatunur (2020) |
| Perceived Behavioral Control | The ease or difficulty of behavioral experience. | Manalu & Adzimatunur (2020) |
| Batik Brand Image | The attitudes related to beliefs and perceptions of a batik brand. | Cho & Fiore (2015) |
| Purchase Intention | How likely consumers are to buy a brand or how likely consumers are to move from one brand to another. | Dabholkar & Bagozzi (2002) Ajzen & Fishbein (1977) |

data from the previous dataset is analyzed before processing it in the next stage. After the cleansing stage, 171 of 177 can be processed based on the consistency of answering the questionnaire question.

Finally, the Partial Least Square Structural Equation Model (PLS-SEM) was used to analyze the data. PLS-SEM has been widely applied in management, marketing, management information systems, and other social science disciplines over the last two decades because it is especially useful in developing theories in exploratory research (Hair et al., 2016; Hair et al., 2019). PLS-SEM is a causal-predictive approach to SEM that emphasizes prediction in estimating statistical models, whose structures are designed to provide causal explanations (Sarstedt et al., 2017). These characteristics strengthen the reason to use PLS-SEM as a suitable modeling method for this study.

4. RESULTS

4.1. Profile of respondents

Regarding gender, age, educational background, and work status, 118 respondents were female, 57 respondents were male, and two respondents chose not to answer; most of the respondents were 26-30 years old (86), had an undergraduate degree (104), and work as a

private employee (60). Regarding their current domicile, the respondents of this research come from all provinces on the island of Java with a fairly even percentage distribution.

4.2. Evaluation of PLS-SEM Results

The next stage in developing the empirical model was to evaluate the PLS-SEM results. This stage involves a two-step process: assessment of measurement models (outer model) and the structural model within the path model (inner model). The first step in evaluating PLS-SEM results is examining the measurement models. If the measurement models meet all the required criteria, the next step is assessing the structural model (Hair et al., 2016).

The first conceptual model shown in Figure 1 was converted into the PLS-SEM format. Attitude (A) has eight items (A1, A2, A3, A4, A5, A6, A7, A8), Subjective Norm (S) has four items (S1, S2, S3, S4), Perceived Behavioral Control (P) has three items (P1, P2, P3), Batik Brand Image (B) has four items (B1, B2, B3, B4), and Purchase Intention (I) has four items (I1, I2, I3, I4). The initial model in PLS-SEM can be seen in Figure 2.

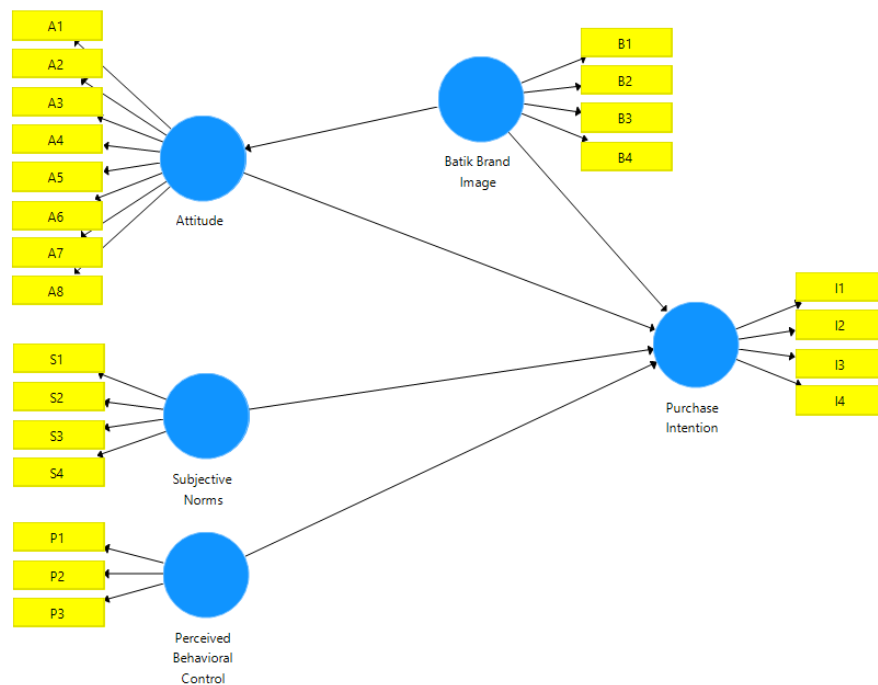


Figure 2. The initial model in PLS-SEM

Table 2. Research's model validity and reliability

| | Cronbach's Alpha | Composite Reliability | Average Variance Extracted (AVE) |
|----------------------------|------------------|-----------------------|----------------------------------|
| Attitude Towards Behavior | 0.741 | 0.839 | 0.573 |
| Batik Brand Image | 0.662 | 0.855 | 0.747 |
| Perceived Behavior Control | 0.604 | 0.834 | 0.715 |
| Purchase Intention | 0.794 | 0.880 | 0.711 |
| Subjective Norm | 0.714 | 0.840 | 0.638 |

4.2.1. Assessing measurement models (outer model)

In the phase of assessing the measurement model, the purpose is to ensure that the model is valid and reliable. It can be seen in four indicators: the indicator loadings, the internal consistency reliability, the convergent validity, and the discriminant validity. The measurement model assessment starts with examining the indicator loadings. The indicator loadings show the correlation between the variable and the items within it. Indicators with very low outer loadings, which values below 0.40, should always be eliminated from the construct (Hair et al., 2016). Loadings with a value above 0.7 are recommended, as they indicate that the construct explains more than 50% of the indicator's variance (Hair et al., 2019). However, according to Hair et al. (2016), many researchers choose to obtain weaker outer loadings (<0.70) in social science studies, especially when newly developed scales are used. Instead of automatically eliminating the indicator with outer loading below 0.7, researchers should carefully examine the effects of item removal on the composite reliability and also on the content validity of the construct (Hair et al., 2016). Thus, in this study, four items in the Attitude Towards Behavior variable (A1, A2, A6, A7), one item in Subjective Norm (S2), two items in Perceived

Behavioral Control (P2 and P4), two items in Batik Brand Image (B3, B4), and one item in Purchase Intention (I3), were eliminated. Consequently, only 14 of 23 items were analyzed in the further process.

The next step was to assess the internal consistency reliability or called Composite Reliability (CR). The higher the composite reliability value indicates, the higher the level of reliability. Another measure of internal consistency reliability is Cronbach's alpha which assumes similar thresholds but produces lower values than composite reliability (Hair et al., 2019). Through this step, it is known that all Cronbach's alpha values and composite reliability values for all variables were well above the required threshold of 0.6 and were still below the maximum threshold of 0.95. It can be concluded that the internal consistency reliability was acceptable.

The third step is assessing the convergent validity of each construct measure using the average variance extracted (AVE). According to Hair et al. (2019), an acceptable AVE is 0.5 or higher to indicate a high level of convergent validity. As seen in Table 2, the AVE value of all variables is above the required threshold, which means the AVE value was acceptable.

Finally, the discriminant validity as the last step in the measurement model was conducted. This step aims to

Table 3. The research's AVE square root for each variable

| | Attitude Towards Behavior | Batik Brand Image | Perceived Behavior Control | Purchase Intention | Subjective Norm |
|----------------------------|----------------------------------|--------------------------|-----------------------------------|---------------------------|------------------------|
| Attitude Towards Behavior | 0.757 | | | | |
| Batik Brand Image | 0.185 | 0.864 | | | |
| Perceived Behavior Control | 0.588 | 0.230 | 0.846 | | |
| Purchase Intention | 0.666 | 0.284 | 0.587 | 0.843 | |
| Subjective Norm | 0.674 | 0.285 | 0.582 | 0.654 | 0.799 |

Table 4. VIF Values

| | Attitude Towards Behavior | Batik Brand Image | Perceived Behavior Control | Purchase Intention | Subjective Norm |
|----------------------------|----------------------------------|--------------------------|-----------------------------------|---------------------------|------------------------|
| Attitude Towards Behavior | | | | 2.054 | |
| Batik Brand Image | 1.000 | | | 1.097 | |
| Perceived Behavior Control | | | | 1.706 | |
| Purchase Intention | | | | | |
| Subjective Norm | | | | 2.097 | |

Table 5. Path Coefficient of The Model

| | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (O/STDEV) | P Values | Interpretation |
|---|----------------------------|------------------------|-----------------------------------|---------------------------------|-----------------|------------------------|
| Attitude Towards Behavior -> Purchase Intention | 0.343 | 0.340 | 0.076 | 4.506 | 0.000 | <i>Significant</i> |
| Batik Brand Image -> Attitude Towards Behavior | 0.185 | 0.202 | 0.073 | 2.535 | 0.012 | <i>Significant</i> |
| Batik Brand Image -> Purchase Intention | 0.095 | 0.100 | 0.060 | 1.594 | 0.111 | <i>Not Significant</i> |
| Perceived Behavior Control -> Purchase Intention | 0.201 | 0.198 | 0.067 | 3.010 | 0.003 | <i>Significant</i> |
| Subjective Norm -> Purchase Intention | 0.279 | 0.283 | 0.075 | 3.730 | 0.000 | <i>Significant</i> |
| Batik Brand Image -> Attitude -> Purchase Intention | 0.063 | 0.068 | 0.028 | 2.246 | 0.025 | <i>Significant</i> |

assess whether the construct is empirically distinct from other constructs in the structural model or not. e. The sign of a model with good discriminant validity is that the square root value of AVE for each variable is higher than its correlation value. The way to find out is by comparing the loading value between the latent variable and other variables. AVE square root for each variable depicted in Table 3 shows that the outer model has good discriminant validity.

Hence the outer model had been proved valid and reliable, and bootstrapping was performed to identify the significance of each dimension to the latent variable. All dimensions except Batik Brand Image were significantly different with a p-value under 0.05, as shown in Table 5.

4.2.2. Assessing Structural Models (Inner Model)

The next step is assessing the inner model of the PLS-SEM result or known as model structural analysis. This

measurement aims to ensure that the developed structural model is robust and accurate. It can be seen in certain indicators, namely variance inflation factor (VIF), determination coefficient (R^2), and predictive relevance (Q^2).

The first step is examining the collinearity to ensure it does not bias the regression results (Hair et al., 2019). For this research, VIF was utilized as an indicator for evaluating multicollinearity. The VIF values should be three and lower to indicate no multicollinearity in the inner model (Hair et al., 2019). The evaluation of VIF proved that there is no multicollinearity in the inner model (see Table 4).

If the collinearity proves that it has no issue, the next step is to examine the endogenous constructs' determination coefficient (R^2) value (Hair et al., 2019). The R^2 is a function of the number of predictor constructs that explain the prediction level of the model, where the greater the number of predictor constructs, the higher the

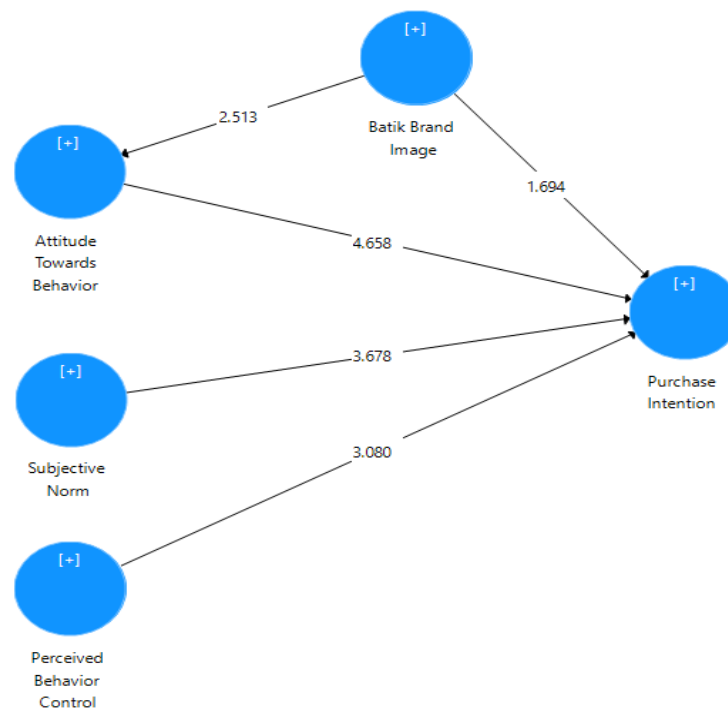


Figure 3. Empirical Model of Batik Purchase Intention of Indonesian Millennials and Gen Z

R^2 . On the other hand, predictive relevance (Q^2) is used to measure the observation value and its parameter estimation. From the result, it is found that all the values of R^2 and Q^2 of the inner model developed in this study are robust. Therefore, hypothesis testing can be conducted.

4.2.3. Empirical Model

The hypothesis test was conducted to find the path coefficient after assessing the outer and inner models. The PLS results for the path coefficient explain the relationship amongst variables at a 5% significance level (two-tailed test). In terms of the direct effect and total effect can be seen in Table 5, and in terms of the indirect effect can be seen in Table 6.

As shown in Table 5, these variables are significant: (1) Attitude Towards Behavior influences Purchase Intention; (2) Batik Brand Image influences Attitude toward behavior; (3) Perceived Behavior Control influences Purchase Intention; (4) Subjective Norm influences Purchase Intention, (5) Attitude mediates the relationship between Brand Image and Purchase Intention. Based on the original sample (O), as shown in Table 5, the correlation among the stated variable is positive. The results also show that Batik Brand Image does not directly influence purchase intention. However, there is a significant influence of batik brand image towards purchase intention mediated by Attitude towards behavior.

5. DISCUSSIONS

Based on Table 5, it is known that the decision to test the first hypothesis is to reject H_0 ; namely, there is sufficient evidence that attitudes toward behavior have a positive effect on purchase intention. This result is in line with Manalu and Adzimatinur (2020). This result refers to

the concept of TPB, and a given behavioral intention can be predicted by analyzing the attitude towards that intention. The results of the second hypothesis test decision show that batik brand image significantly influences attitudes toward behavior. According to Zhang (2015), whatever the companies' marketing strategies are, one of the main purposes of their marketing activities is to influence consumers' attitudes toward a brand, and the brand image is the key driver that can influence consumer behavior. In addition, the results of the third hypothesis test decision show that there is no significant effect between batik brand image on purchase intention. However, it is known that on the results of the sixth hypothesis test decision, brand image has an indirect effect on purchase intention by mediating attitudes toward behavior. This indirect relationship between brand image and purchase intention is following Mubarak (2018). As mentioned in Zhang (2015), some studies prove that brand image does not only influence consumer behavior directly but also impacts it through other mediating factors. From this evidence, it can be concluded that companies could infer the potential influence of brand image on customer satisfaction by exploring and identifying the customer preference for the brand, both among existing customers and non-users of the brand. Furthermore, the fourth hypothesis test results significantly influence perceived behavioral control on purchase intention. The results of the fifth hypothesis test also show that there is a significant influence between subjective norms on purchase intention.

6. CONCLUSION

From this research, it can be concluded that all the predictor variables adapted from TPB are the key factor influencing purchase intention. The empirical model of

this research can be seen in Figure 3. This result is in line with the previous research about batik purchase intention based on a theory of planned behavior. This research used the extended factor, batik brand image, which has proved to influence the purchase intention mediated by attitude towards behavior. The relationship between batik brand image and purchase intention is an indirect effect. In short, our study offered useful initial insights into how all the three TPB variables increase batik's purchase intention. This study may serve as a reference for future research analyzing batik consumer purchase intention using PLS-SEM in different subjects or places. For future research, the analysis of batik purchase intention could be further improved by comparing the consumer group intention, as an example between Millennials and Gen Z, or between all generations.

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Extended Theory of Planned Behavior (TPB) to Analyze the Batik Purchase Intention of Indonesian Millennials and Gen Z

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Extended Theory of Planned Behavior (TPB) to Analyze the Batik Purchase Intention of Indonesian Millennials and Gen Z

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ABSTRACT

As the nation's cultural heritage of Indonesia, batik has an important role in the Indonesian economy. This industry provides job opportunities that involve a lot of human resources in it and contributes to the country's foreign exchange through the export of national batik to big countries. Although the development of the batik industry has increased, there are still problems in marketing batik products in Indonesia. These problems can lead to more serious problems such as batik craftsmen leaving the business. These problems must be overcome so that the batik industry can maintain its existence. One of the possible solutions is to understand buying behavior characteristics of the existing consumer groups, which are Millennials and Gen Z. Therefore, the purpose of this research is to use a theoretical framework based on the Planned Behavior Theory (TPB) model by Ajzen (1991) to analyze the relationship between experimental variables and the effect on Indonesian Millennials and Gen Z's intention to buy Batik. The focus area selected was Java Island because that is an area with the largest batik industry center in Indonesia. So, the potential to reach a larger consumer need to be explored. Considering the potential of the new generation's high buying power, Millennials and Gen Z were selected as the subject of this study. A total of 177 respondents from various provinces in Java were involved in filling out an online questionnaire containing measurement items related to the purpose of this study. The next step is processing the data using the Partial Least Square Structural Equation Model (PLS-SEM), which has been widely used in various research disciplines over the last two decades. The results show that the five of six hypotheses tested are acceptable: (1) Attitude towards behavior influences purchase intention; (2) Batik Brand Image influences Attitude towards behavior; (3) Perceived behavior control influences purchase intention; (4) Subjective norm influences purchase intention; (5) attitude mediates the relationship between brand image and purchase intention.

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Research Type: Research Paper

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1. INTRODUCTION

Batik is a well-known and worldwide cultural heritage of Indonesia. On October 2, 2009, UNESCO designated batik as a Masterpiece of The Oral and Intangible Heritage of Humanity. Since then, efforts to develop and protect the existence of batik have been one of the main focuses of the Indonesian government. As the nation's cultural heritage, batik has an important role in the

national economy. The national batik industry has contributed to state revenue because it provides jobs opportunity that involves a lot of human resources. In addition, the national batik industry also contributes to the country's foreign exchange. According to the Indonesian Ministry of Foreign Affairs, the main markets for Indonesian batik exports include big countries like Japan, the United States, and Europe in 2021.

Although the development of the batik industry has

increased, Mubarak (2018) said that the owners of the batik industry experience problems in marketing batik products in the country. Budiarti et al. (2019) also mention that the lack of demand for batik products can cause batik craftsmen to leave their batik business. These problems must be overcome so that the batik industry can maintain its existence as a contributor to the economy and as a nation's culture. Data collected by the Ministry of Industry that batik industry centers in Java reach 101 units and 3,782 business units absorb up to 15,055 workers. So, in this study, the analysis is aimed at batik users who live on the island of Java, which is an area with the largest batik industry center in Indonesia.

Search results from various sources show only a few studies related to buying interest in batik. In fact, there have been many studies related to purchasing intentions in the context of clothing. Therefore, the first thing to do is find out what factors can attract consumers to buy batik. It is in line with the research done by Badgaiyana & Verma (2015), which said that in the world of marketing, intentions and consumer behavior are two things that are related to each other. The customer's background can influence purchase intention. Customer needs and wants often change with age (Kotler & Keller, 2012). The Millennials generation and Gen Z are the new target markets with different buying behavior characteristics from the existing consumer groups. Generation Y, widely known as Millennials, is a generation between generation X and generation Z. According to Grace, their birth years range from the 1980s and early 1990s. Even though Millennials are the closest age to generation Z, they do have some differences. Millennials are often referred to as the Me Generation. This generation is entitled and expects things to be handed to them, leading to the perception of them as self-interested and overconfident. The millennial generation is a potential market segment because of their great consumption potential and extraordinary purchasing power, especially online shopping (Noble et al., 2009). On the other hand, Generation Z refers to those born from 1995 through 2010. This generation is often referred to as digital natives, the Net Generation, or iGeneration. According to Antonio and Astika (2019), marketers was more likely to define this market as a homogenous group even though millennial are diverse distinctive segments that require a unique approach to promotion. The same goes for gen Z as the new generation with high buying power. Therefore, the batik industry needs to understand its market before designing and applying the promotion method.

This research uses a theoretical framework based on the Planned Behavior Theory (TPB) model by Ajzen (1991) to analyze the relationship between experimental variables and the effect on Indonesian Millennial and Gen Z's intention to buy Batik. The Theory of Planned Behaviour (TPB), introduced by Ajzen (1991), is an extension model of the Theory of Reasoned Action, which was previously developed by Ajzen and Fishbein (1977). The TPB model suggests that a certain set of motivational factors, including attitudes towards a behavior, subjective norms, and the additional variable, perceived behavioral control, lead to an intention to perform a behavior (Ajzen, 1991). This theoretical model has been widely used, over

the years, for predicting behavioral intentions in many fields of study. Its general connotation makes it easily adapt from time to time to different contexts in which the analysis is conducted (Tommasetti et al., 2018).

However, several studies made efforts to change the original theoretical model to improve the explanatory power of this theory by adding additional constructs within the TPB model (Kaiser and Scheuthle, 2003; Chen and Tung, 2014; Tommasetti et al., 2018). Therefore, in this research, TPB was modified and was used as a foundation to develop the conceptual model. The extended variable of this study is batik brand image. Brand image is the perception carried out by consumers as reflected in the associations that occur in consumer memory (Kotler & Kevin, 2007). A good brand image will produce various benefits; one of them is increasing consumer purchasing decisions. Thus, the primary objective of this research is to investigate the prediction variables adapted from TPB: attitude towards behavior, subjective norm, perceived behavioral control, and the extended variable, batik brand image, towards Millennials and gen Z purchase intention in Java Island, Indonesia.

2. LITERATURE REVIEW

Research about purchase intention has been conducted in almost every fashion product and industry. But, there is only a little research about batik purchase intention, especially in observing the Millennial and Gen Z. Budiarti et al. (2019) have researched the influence of product innovation on consumer purchase intentions on Batik Tanah Lick's product. Product innovation being researched was product feature innovation, product packaging innovation, product uniqueness innovation, and product competitiveness. The result shows that product competitiveness is the only predictor that significantly affects purchase intention.

Keni et al. (2019) conducted a study related to consumer intention of purchasing batik in Solo and Yogyakarta. The research adopted TPB as the basis for formulating the model. The research used three predictors, namely the interest in buying batik, the satisfaction of batik purchase, and previous batik purchase. A total of 176 batik consumers have filled out a questionnaire with an age range of 17 to 67 years. The results of this study indicate that the three predictors used have a positive relationship to the dependent variable of this study, namely batik purchase intention. This study has not used a moderator variable and needs to develop other variables.

Manalu and Adzimatinur (2020) conducted a study related to the purchase intention of domestic batik compared to imported batik through TPB. The focus of the study was on the ethnocentrism variable, which was believed to influence a domestic market product. Ethnocentrism is a consumer's belief when buying products with a concern about the suitability, morality, and loyalty to the country's products. Price sensitivity and attitude were used as mediator variables. Manalu and Adzimatinur (2020) used six primary constructs: consumer ethnocentrism, price sensitivity, attitude, subjective norm, perceived control behavior, and purchase intention. A total of 200 respondents filled out

the printed questionnaire with a purposive sampling approach. Most of the respondents were from Java, with an age range of 20 to 53 years. As a result, consumer ethnocentrism was found to affect purchase intention significantly. The consumers who have high ethnocentrism also have high intentions to purchase batik products in the country and will not consider whatever price they will pay.

Other sources have confirmed that brand image is a factor that can reinforce the intention to perform a behavior. The research about the effect of brand image and consumer attitudes on purchasing decisions directly and indirectly mediated by intent to purchase has been done by Mubarak (2018). The population in this study were consumers of Batik Jetis Sidoarjo in East Java. A total of 100 persons reached from the judgmental sampling method has filled the questionnaire. The results showed that brand image has a positive and significant direct effect on purchasing decisions; consumer attitudes also have a significant direct effect on purchasing decisions; brand image and consumer attitudes have a positive and significant indirect effect on purchasing decisions through intent to purchase.

Fatimah and Prihandono (2020) added that brand image has a positive and significant influence on purchasing decisions through purchase intention. The research was conducted on Poeniko Batik Pekalongan with 100 participating consumers of that store. According to Fatimah and Prihandono (2020), the better the brand image built, the better consumer purchase intention created. That purchase intention will also have an impact on purchasing decisions.

Antonio and Astika (2019) have done related research on the exploration of batik customer behavior. However, the subject of this research was Non-Javanese Indonesian Millennials. The focus was to study the influence of customer diversity seeking and attitude toward ethnic culture on the purchase intention and willingness to share the batik cloth's positive electronic word of mouth (e-WoM). Social, emotional, and epistemic values were used as the mediator variable. The moderator variable was ethnic embeddedness. As a result, it is found that both customer diversity seeking and attitude toward ethnic culture significantly affect the consumption value. All the variables (social, emotional, and epistemic) have a significantly positive impact on e-WoM and customer purchase intention. On the other side, ethnic embeddedness has proven to have a moderation effect on the epistemic value and social value variables. Moreover, the social value variable was found as the strongest predictor of purchase intention. Therefore, some of the measurement questions in this research will be adapted from Antonio and Astika (2019).

It can be concluded that there is only a little research about batik purchase intention. Whereas to solve the problems in marketing batik products, the batik industry should have a good understanding of what factors influence purchase intention. Furthermore, Millennials and Gen Z are the generations who have powerful buying power that needs to be explored. Several studies have been using TPB to find out what factors affect the batik consumer purchase intention. Moreover, it is confirmed

that brand image is a factor that can reinforce the intention to perform a behavior. Therefore, in this research, TPB was modified and was used as the foundation to develop the conceptual model, and the extended variable of this study is batik brand image.

3. RESEARCH METHODOLOGY

3.1 Hypothesis development

Based on the literature review, the following hypotheses are developed:

H1: attitude has a positive effect on purchase intention.

H2: subjective norms have a positive effect on purchase intention.

H3: perceived behavioral control has a positive effect on purchase intention.

H4: batik brand image has a positive effect on purchase intention.

H5: batik brand image has a positive effect on attitude.

H6: attitude mediates the relationship between brand image and purchase intention.

As shown in Figure 1, the research framework was built based on hypothesis development. The operational definition of each variable and references adopted can be seen in Table 1.

3.2 Research's subject and method

This study required the respondents to fill out the online questionnaire using google form. The questions were adapted from previous researchers, as shown in Table 1. Questionnaire items adapted from previous research are then designed in Indonesian. This study used purposive sampling with the criteria of the respondent are Indonesian Millennials and Gen Z who live on Java Island. After the development of the questionnaire, the pilot study was conducted. The instrument was then tested using validity and reliability testing before sharing it with the target respondent.

The validity test in this study was carried out by comparing the correlation coefficient (r count) for each statement with the correlation coefficient value for $n = 30$ in the t table with a value of $= 0.05$, namely 0.349. The statement item is said to be valid if the correlation coefficient (r count) is greater than the correlation coefficient in the t table, namely > 0.349 . The result of the validity test found that all items were valid. Furthermore, reliability testing has done by measuring the value of Cronbach's alpha (α). The higher the coefficient value, the more reliable it is. The questionnaire is said to be reliable if it has a Cronbach's alpha value of more than 0.6 (Hair et al., 2019). Regarding the reliability test, it was found that all items proved to be reliable with the Cronbach's alpha value of more than 0.8, which means that the questionnaire item has high reliability. Thus, the designed questionnaire was used to collect the data. Determination of the number of samples followed the minimum sample criteria based on Hair et al. (2016). The parameters used are R^2 (0.1), $\alpha = 5\%$, and statistical power = 80%, a minimum sample size of 103 is needed. In total, 177 participants consisting of Millennials and Gen Z in Java Island, participated in the online survey. The next step is data cleansing. The

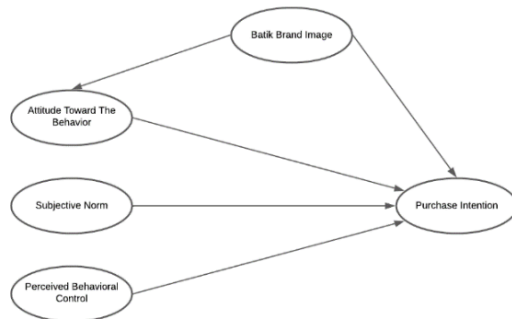


Figure 1. Research's Framework

Table 1. Operational Definition of Variables

| Latent Variable | Operational Definitions | References |
|------------------------------|--|---|
| Attitude | Disposition to respond positively or negatively to a behavior. | Bruner (2010) Manalu & Adzimatunur (2020) |
| Subjective Norms | The perceived social pressure to conduct or not to conduct a behavior. | Ajzen (1991) Manalu & Adzimatunur (2020) |
| Perceived Behavioral Control | The ease or difficulty of behavioral experience. | Manalu & Adzimatunur (2020) |
| Batik Brand Image | The attitudes related to beliefs and perceptions of a batik brand. | Cho & Fiore (2015) |
| Purchase Intention | How likely consumers are to buy a brand or how likely consumers are to move from one brand to another. | Dabholkar & Bagozzi (2002) Ajzen & Fishbein (1977) |

data from the previous dataset is analyzed before processing it in the next stage. After the cleansing stage, 171 of 177 can be processed based on the consistency of answering the questionnaire question.

Finally, the Partial Least Square Structural Equation Model (PLS-SEM) was used to analyze the data. PLS-SEM has been widely applied in management, marketing, management information systems, and other social science disciplines over the last two decades because it is especially useful in developing theories in exploratory research (Hair et al., 2016; Hair et al., 2019). PLS-SEM is a causal-predictive approach to SEM that emphasizes prediction in estimating statistical models, whose structures are designed to provide causal explanations (Sarstedt et al., 2017). These characteristics strengthen the reason to use PLS-SEM as a suitable modeling method for this study.

4. RESULTS

4.1. Profile of respondents

Regarding gender, age, educational background, and work status, 118 respondents were female, 57 respondents were male, and two respondents chose not to answer; most of the respondents were 26-30 years old (86), had an undergraduate degree (104), and work as a

private employee (60). Regarding their current domicile, the respondents of this research come from all provinces on the island of Java with a fairly even percentage distribution.

4.2. Evaluation of PLS-SEM Results

The next stage in developing the empirical model was to evaluate the PLS-SEM results. This stage involves a two-step process: assessment of measurement models (outer model) and the structural model within the path model (inner model). The first step in evaluating PLS-SEM results is examining the measurement models. If the measurement models meet all the required criteria, the next step is assessing the structural model (Hair et al., 2016).

The first conceptual model shown in Figure 1 was converted into the PLS-SEM format. Attitude (A) has eight items (A1, A2, A3, A4, A5, A6, A7, A8), Subjective Norm (S) has four items (S1, S2, S3, S4), Perceived Behavioral Control (P) has three items (P1, P2, P3), Batik Brand Image (B) has four items (B1, B2, B3, B4), and Purchase Intention (I) has four items (I1, I2, I3, I4). The initial model in PLS-SEM can be seen in Figure 2.

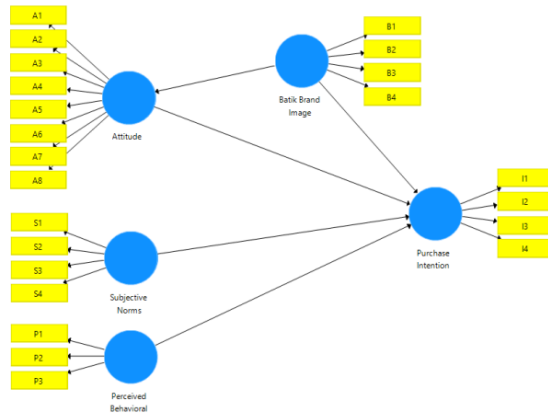


Figure 2. The initial model in PLS-SEM

Table 2. Research's model validity and reliability

| | Cronbach's Alpha | Composite Reliability | Average Variance Extracted (AVE) |
|----------------------------|------------------|-----------------------|----------------------------------|
| Attitude Towards Behavior | 0.741 | 0.839 | 0.573 |
| Batik Brand Image | 0.662 | 0.855 | 0.747 |
| Perceived Behavior Control | 0.604 | 0.834 | 0.715 |
| Purchase Intention | 0.794 | 0.880 | 0.711 |
| Subjective Norm | 0.714 | 0.840 | 0.638 |

4.2.1. Assessing measurement models (outer model)

In the phase of assessing the measurement model, the purpose is to ensure that the model is valid and reliable. It can be seen in four indicators: the indicator loadings, the internal consistency reliability, the convergent validity, and the discriminant validity. The measurement model assessment starts with examining the indicator loadings. The indicator loadings show the correlation between the variable and the items within it. Indicators with very low outer loadings, which values below 0.40, should always be eliminated from the construct (Hair et al., 2016). Loadings with a value above 0.7 are recommended, as they indicate that the construct explains more than 50% of the indicator's variance (Hair et al., 2019). However, according to Hair et al. (2016), many researchers choose to obtain weaker outer loadings (<0.70) in social science studies, especially when newly developed scales are used. Instead of automatically eliminating the indicator with outer loading below 0.7, researchers should carefully examine the effects of item removal on the composite reliability and also on the content validity of the construct (Hair et al., 2016). Thus, in this study, four items in the Attitude Towards Behavior variable (A1, A2, A6, A7), one item in Subjective Norm (S2), two items in Perceived

Behavioral Control (P2 and P4), two items in Batik Brand Image (B3, B4), and one item in Purchase Intention (I3), were eliminated. Consequently, only 14 of 23 items were analyzed in the further process.

The next step was to assess the internal consistency reliability or called Composite Reliability (CR). The higher the composite reliability value indicates, the higher the level of reliability. Another measure of internal consistency reliability is Cronbach's alpha which assumes similar thresholds but produces lower values than composite reliability (Hair et al., 2019). Through this step, it is known that all Cronbach's alpha values and composite reliability values for all variables were well above the required threshold of 0.6 and were still below the maximum threshold of 0.95. It can be concluded that the internal consistency reliability was acceptable.

The third step is assessing the convergent validity of each construct measure using the average variance extracted (AVE). According to Hair et al. (2019), an acceptable AVE is 0.5 or higher to indicate a high level of convergent validity. As seen in Table 2, the AVE value of all variables is above the required threshold, which means the AVE value was acceptable.

Finally, the discriminant validity as the last step in the measurement model was conducted. This step aims to

Table 3. The research's AVE square root for each variable

| | Attitude Towards Behavior | Batik Brand Image | Perceived Behavior Control | Purchase Intention | Subjective Norm |
|----------------------------|---------------------------|-------------------|----------------------------|--------------------|-----------------|
| Attitude Towards Behavior | 0.757 | | | | |
| Batik Brand Image | 0.185 | 0.864 | | | |
| Perceived Behavior Control | 0.588 | 0.230 | 0.846 | | |
| Purchase Intention | 0.666 | 0.284 | 0.587 | 0.843 | |
| Subjective Norm | 0.674 | 0.285 | 0.582 | 0.654 | 0.799 |

Table 4. VIF Values

| | Attitude Towards Behavior | Batik Brand Image | Perceived Behavior Control | Purchase Intention | Subjective Norm |
|----------------------------|---------------------------|-------------------|----------------------------|--------------------|-----------------|
| Attitude Towards Behavior | | | | 2.054 | |
| Batik Brand Image | 1.000 | | | 1.097 | |
| Perceived Behavior Control | | | | 1.706 | |
| Purchase Intention | | | | | |
| Subjective Norm | | | | 2.097 | |

Table 5. Path Coefficient of The Model

| | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (O/STDEV) | P Values | Interpretation |
|---|---------------------|-----------------|----------------------------|--------------------------|----------|-----------------|
| Attitude Towards Behavior -> Purchase Intention | 0.343 | 0.340 | 0.076 | 4.506 | 0.000 | Significant |
| Batik Brand Image -> Attitude Towards Behavior | 0.185 | 0.202 | 0.073 | 2.535 | 0.012 | Significant |
| Batik Brand Image -> Purchase Intention | 0.095 | 0.100 | 0.060 | 1.594 | 0.111 | Not Significant |
| Perceived Behavior Control -> Purchase Intention | 0.201 | 0.198 | 0.067 | 3.010 | 0.003 | Significant |
| Subjective Norm -> Purchase Intention | 0.279 | 0.283 | 0.075 | 3.730 | 0.000 | Significant |
| Batik Brand Image -> Attitude -> Purchase Intention | 0.063 | 0.068 | 0.028 | 2.246 | 0.025 | Significant |

assess whether the construct is empirically distinct from other constructs in the structural model or not. e. The sign of a model with good discriminant validity is that the square root value of AVE for each variable is higher than its correlation value. The way to find out is by comparing the loading value between the latent variable and other variables. AVE square root for each variable depicted in Table 3 shows that the outer model has good discriminant validity.

Hence the outer model had been proved valid and reliable, and bootstrapping was performed to identify the significance of each dimension to the latent variable. All dimensions except Batik Brand Image were significantly different with a p-value under 0.05, as shown in Table 5.

4.2.2. Assessing Structural Models (Inner Model)

The next step is assessing the inner model of the PLS-SEM result or known as model structural analysis. This

measurement aims to ensure that the developed structural model is robust and accurate. It can be seen in certain indicators, namely variance inflation factor (VIF), determination coefficient (R^2), and predictive relevance (Q^2).

The first step is examining the collinearity to ensure it does not bias the regression results (Hair et al., 2019). For this research, VIF was utilized as an indicator for evaluating multicollinearity. The VIF values should be three and lower to indicate no multicollinearity in the inner model (Hair et al., 2019). The evaluation of VIF proved that there is no multicollinearity in the inner model (see Table 4).

If the collinearity proves that it has no issue, the next step is to examine the endogenous constructs' determination coefficient (R^2) value (Hair et al., 2019). The R^2 is a function of the number of predictor constructs that explain the prediction level of the model, where the greater the number of predictor constructs, the higher the

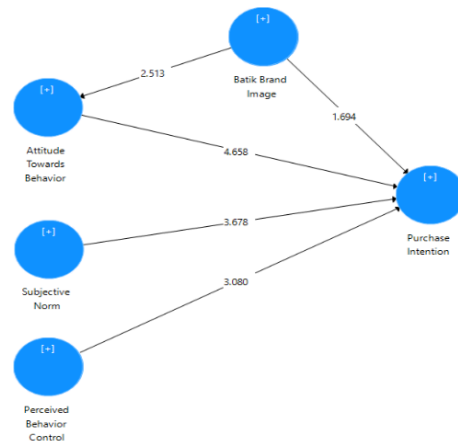


Figure 3. Empirical Model of Batik Purchase Intention of Indonesian Millennials and Gen Z

R^2 . On the other hand, predictive relevance (Q^2) is used to measure the observation value and its parameter estimation. From the result, it is found that all the values of R^2 and Q^2 of the inner model developed in this study are robust. Therefore, hypothesis testing can be conducted.

4.2.3. Empirical Model

The hypothesis test was conducted to find the path coefficient after assessing the outer and inner models. The PLS results for the path coefficient explain the relationship amongst variables at a 5% significance level (two-tailed test). In terms of the direct effect and total effect can be seen in Table 5, and in terms of the indirect effect can be seen in Table 6.

As shown in Table 5, these variables are significant: (1) Attitude Towards Behavior influences Purchase Intention; (2) Batik Brand Image influences Attitude toward behavior; (3) Perceived Behavior Control influences Purchase Intention; (4) Subjective Norm influences Purchase Intention; (5) Attitude mediates the relationship between Brand Image and Purchase Intention. Based on the original sample (O), as shown in Table 5, the correlation among the stated variable is positive. The results also show that Batik Brand Image does not directly influence purchase intention. However, there is a significant influence of batik brand image towards purchase intention mediated by Attitude towards behavior.

5. DISCUSSIONS

Based on Table 5, it is known that the decision to test the first hypothesis is to reject H_0 ; namely, there is sufficient evidence that attitudes toward behavior have a positive effect on purchase intention. This result is in line with Manalu and Adzimatinur (2020). This result refers to

the concept of TPB, and a given behavioral intention can be predicted by analyzing the attitude towards that intention. The results of the second hypothesis test decision show that batik brand image significantly influences attitudes toward behavior. According to Zhang (2015), whatever the companies' marketing strategies are, one of the main purposes of their marketing activities is to influence consumers' attitudes toward a brand, and the brand image is the key driver that can influence consumer behavior. In addition, the results of the third hypothesis test decision show that there is no significant effect between batik brand image on purchase intention. However, it is known that on the results of the sixth hypothesis test decision, brand image has an indirect effect on purchase intention by mediating attitudes toward behavior. This indirect relationship between brand image and purchase intention is following Mubarak (2018). As mentioned in Zhang (2015), some studies prove that brand image does not only influence consumer behavior directly but also impacts it through other mediating factors. From this evidence, it can be concluded that companies could infer the potential influence of brand image on customer satisfaction by exploring and identifying the customer preference for the brand, both among existing customers and non-users of the brand. Furthermore, the fourth hypothesis test results significantly influence perceived behavioral control on purchase intention. The results of the fifth hypothesis test also show that there is a significant influence between subjective norms on purchase intention.

6. CONCLUSION

From this research, it can be concluded that all the predictor variables adapted from TPB are the key factor influencing purchase intention. The empirical model of

this research can be seen in Figure 3. This result is in line with the previous research about batik purchase intention based on a theory of planned behavior. This research used the extended factor, batik brand image, which has proved to influence the purchase intention mediated by attitude towards behavior. The relationship between batik brand image and purchase intention is an indirect effect. In short, our study offered useful initial insights into how all the three TPB variables increase batik's purchase intention. This study may serve as a reference for future research analyzing batik consumer purchase intention using PLS-SEM in different subjects or places. For future research, the analysis of batik purchase intention could be further improved by comparing the consumer group intention, as an example between Millennials and Gen Z, or between all generations.

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