FACTORS AFFECTING PURCHASE INTENTION 5G SMARTPHONE IN INDONESIA USING THE EXTENDED TPB APPROACH

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Abstract: In contemporary society, smartphones have evolved into essential tools, with fast internet connectivity playing a pivotal role. In Indonesia, the deployment of 5G networks, the fastest in the industry, has officially begun, though it’s limited to just nine regions. Notably, between 2021 and 2022, the sales of 5G smartphones in Indonesia surged twofold. This research investigates the factors influencing the purchase intention of 5G smartphones in Indonesia. It employs the Theory of Planned Behavior (TPB) as the foundational framework and extends it with variables such as facilitating conditions and customer preferences. Customer preferences mediate the relationship between price, product features, aesthetic value, and purchase intention. Employing quantitative analysis via Structural Equation Modeling with SmartPLS 3.0, this study engaged 335 respondents from diverse regions in Indonesia. The findings indicate that attitude, subjective norm, perceived behavior control, customer preferences, and facilitating conditions significantly impact purchase intention. Product features and aesthetic value, but not price, influence customer preferences. Smartphone manufacturers can capitalize on these preferences by highlighting the unique features and aesthetic values of 5G smartphones and promoting their advantages and value for money through digital and print media. This research provides valuable insights for marketing professionals and policymakers in Indonesia’s growing 5G smartphone market.

Keywords: 5G Smartphone, Purchase Intention, Customer Preferences, Theory of Planned Behavior (TPB), Structural Equation Model (SEM)
INTRODUCTION

Technology is something that has ever-increasing implications in every area of everyday life. People of all ages and economic levels are highly involved with technology devices. The invention and development of smartphones are one indication of the rapid changes in technological progress (Adekanle and Ejechi, 2018). Smartphones are now considered an inseparable part of every day life, and most people carry them (Rakib et al., 2022). One noteworthy indication of technological advancement is the emergence of fifth-generation (5G) internet networks, offering speeds ten times faster than their predecessor, 4G (Yamagojo et al., 2018). The global ambition to embrace fifth-generation (5G) technology is underway, sparking a competition for survival in the realm of information technology. This action implies significant growth opportunities for future Internet of Things (IoT) devices such as smartphones (Le and Yang, 2021). Despite this, limited research addresses the factors driving consumer adoption of smartphones capable of accessing 5G networks.

Purchase intention is key to understanding what motivates consumers to use 5G smartphones. The Theory of Planned Behavior (TPB) from Ajzen (1991) is a suitable framework for identifying variables influencing purchase intention. Dhar and Dhar (2022) demonstrate that all three TPB variables (attitude, subjective norm, and perceived behavior control) positively and significantly influence the purchase intention of smartphones. Additionally, facilitating conditions emerge as a variable influencing the purchase intention of 5G smartphones, as indicated in Pitchayadejanant (2011), exploring smartphone adoption in Bangkok. Furthermore, customer preferences can influence the purchase intention of 5G smartphones. 5G smartphone purchase intention study in Vietnam revealed a positive relationship between customer preferences and purchase intention (Le and Yang, 2021). Customer preferences are also influenced by other variables, namely price, product features, and aesthetic value. Numerous studies consistently highlight the significant role of price in determining purchase intention for smartphones and, specifically, 5G smartphones (Osman et al., 2012; Lay-Yee et al., 2013; Le and Yang, 2021). Moreover, a positive relationship between product features of 5G smartphones and customer preferences was identified in Vietnam (Le and Yang, 2021). Regarding the variable of aesthetic value, Sondergasser and Sauer (2010) support its importance in determining purchase intention.

Indonesia is in 4th position, with the number of smartphone users reaching 187.7 million or 68.1% of Indonesia’s population (Newzoo, 2022). In mid-2021, the 5G network officially entered Indonesia but is only spread over nine areas, namely Jabodetabek, Bandung, Batam, Balikpapan, Makassar, Surakarta, Surabaya, Denpasar, and Medan (Kemenkominfo, 2021). However, if we look at the condition of the number of smartphone sales in Indonesia, there is the fact that smartphone sales decreased in the first quarter of 2023 year on year (YoY) from 2022. This decline was at -11.9%, or if calculated in the number of units, it reached a one million smartphone unit decline. The decline in smartphone shipments to Indonesia is also in line with the decrease in 4G smartphone shipments to Indonesia, which occurred in the 2nd quarter of 2022 by -13.8% from the 2nd quarter of 2021 (Counterpoint Research, 2022). Furthermore, the number of 5G smartphone shipments has increased by 159% year on year in second quarter of 2022. The phenomenon of limited 5G network availability and the simultaneous surge in 5G smartphone sales in Indonesia forms the focal point of this research.

Prior studies on the same subject have certain limitations, with each primarily adopting a single perspective in determining factors influencing purchase intention. Research conducted by Dhar and Dhar (2022) focused solely on the Theory of Planned Behavior, while Le and Yang (2021) emphasized customer preferences. Pitchayadejanant (2011) adopted the perspective of technology acceptance based on the Unified Theory of Acceptance and Use of Technology (UTAUT). This research expands, qualifies, and elaborates on some previous studies. The elaboration is carried out to enrich the research point of view, which is obtained from the possibility of an attitude manifesting as behavior in TPB (Widyarini, 2009), the point of view of customer preferences as an evaluative form of liking or disliking towards 5G smartphones (Scherer, 2005), and the third point of view from trust customers of the facilities available to adopt a technology (Venkatesh et al., 2003).

Most prior studies explored factors influencing purchase intention from a single perspec-
tive. Conversely, research on the factors influencing 5G smartphone purchase intention in Indonesia remains limited. The novelty of this research lies in selecting Indonesia as the research location and attempting to elaborate from three perspectives: the theory of planned behavior, customer preferences, and the technology acceptance theory reflected in the research variables. This research is hoped to become a reference in expanding the use of 5G smartphones. Later, the domino effect will feel like a comprehensive expansion of the 5G network due to the high demand for 5G networks. This research aims to identify the factors affecting the purchase intention of 5G smartphones in Indonesia.

LITERATURE REVIEW

Theory of Planned Behavior (TPB)

Renowned social psychologist Izek Ajzen has formulated a theory of paramount significance for examining the relationship between attitudes and behavior. This theory, known as the "Theory of Planned Behavior" (TPB), was expounded by Ajzen in his seminal article titled "From Intentions to Actions: A Theory of Planned Behavior" in 1985. TPB draws from various attitude theories, including theories of learning, expectancy-value theories, consistency theories, and attribution theories. It represents an evolutionary development from the Theory of Reasoned Action (TRA).

The Theory of Planned Behavior (TPB), also abbreviated as TPB, elucidates the factors that give rise to behavioral intentions. According to TPB, behavioral intentions are determined by three primary determinants: attitude, subjective norm, and perceived behavior control. This theory has been extensively applied across diverse academic disciplines concerned with behavior and environmental issues (Alimbudiono, 2020). The Theory of Planned Behavior (TPB) is a robust, straightforward theory for predicting and explaining behavior. It elucidates the concept of intentions, specifically the degree of determination individuals exert and the extent of effort invested in carrying out an action. Consequently, at its core, the fundamental premise of TPB centers on the anticipation of intentions, which, barring significant hindrances, are expected to manifest as actual behavior.

Facilitating Condition

Facilitating condition is one of the key variables within the Unified Theory of Acceptance and Use of Technology (UTAUT). UTAUT is a technology acceptance model introduced by Venkatesh et al. (2003). Sedana and Wijaya (2009) stated that the UTAUT theory provides a valuable tool for assessing the potential adoption of new technologies and aids in understanding the acceptance of these new technologies within a specific population. UTAUT integrates several prominent technology acceptance theories into a novel and comprehensive framework.

![Diagram of Theory of Planned Behavior](source: Ajzen (1991))

Figure 1. Theory of Planned Behavior
Eight theories are amalgamated within the UTAUT, encompassing the Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Motivational Model (MM), Theory of Planned Behavior (TPB), combined TAM and TPB, Model of PC Utilization (MPTU), Innovation Diffusion Theory (IDT), and Social Cognitive Theory (SCT). After evaluating these eight theories, Venkatesh et al. (2003) identified four key variables that play pivotal roles in influencing the intention to adopt technology: performance expectancy, effort expectancy, social influence, and facilitating condition. For this study, the facilitating condition is adopted and incorporated into the research variables to provide an additional perspective on customer trust in the available facilities for technology adoption.

Al-Qeisi et al. (2014) stated that the facilitating condition represents the level of comfort and ease experienced by individuals when adopting a system supported by organizational and technical infrastructure. Consumer perceptions of support and resources for technology-related behaviors indicate facilitating conditions and can significantly influence the intention to use the technology (Venkatesh et al., 2003). The presence of supportive infrastructure is known to enhance the public’s intent to adopt new technologies (Oliveira et al. 2016).

Customer Preferences

Understanding customer preferences is imperative for every seller, as it leads to customer churn (Zubcse et al., 2017). In the realm of psychology, customer preferences can be conceptualized as individual bias toward an object (Lichtenstein and Slovic, 2006). Alternatively, from another psychological perspective, customer preferences are evaluative judgments regarding liking or disliking (Scherer, 2005).

Semaoen and Kiptiyah (2011) stated that consumer preference is the consumer’s ability to determine their liking or disliking of a product and subsequently make a purchase based on their selection. Hanafiah and Wardhana (2019) stated that consumer preference encompasses a consumer’s attitude towards a brand or product, which is formed through evaluation. Consequently, consumer preference can be delineated as a process in which consumers seek information about a product or service that aligns with their liking, culminating in attitudes through evaluation.

Price

From the consumer’s perspective, price refers to the sacrifice to acquire a product (Zeithaml, 1988). According to Kotler and Armstrong (2017), price encompasses all the benefits of possessing or using a product. However, consumers also perceive other components, such as price discounts, complimentary accessories with purchases, and financial support (installment policies and promotions), as indicators of the pricing strategy. Notably, it is evident that smartphone retailers consistently leverage pricing strategies to advertise their latest smartphone series. Traditionally, well-established smartphone retailers often offer financial support through installment policies, promotional programs, vouchers, physical incentives (free accessories, gifts), or even complimentary shipping (Le and Yang, 2021). Hence, this research conceptualizes price as encompassing the entire value proposition of owning or using a 5G smartphone, which includes the selling price, installment policies, promotional programs, physical incentives, and pricing fluctuations for 5G smartphones.

Product Feature

Every smartphone device undoubtedly possesses supporting features, and each brand has unique features to highlight. Product features tend to be a significant factor influencing users in their smartphone purchase decisions. As a component of a product, product features signify what satisfies consumers’ needs and desires through product ownership, utilization, and exploitation (Kotler and Armstrong, 2017). Product features represent the physical composition of the product itself (Zeithaml, 1998). Product features become a distinct consideration for consumers when making choices and decisions regarding their purchase. This is because they pertain to the completeness or advantages a product can provide to deliver the expected consumer satisfaction.

Aesthetic Value

The conceptualization of aesthetic value encompasses aspects such as harmony, beauty, and regularity within the material world. However, aesthetic value is not limited to visual attributes...
but encompasses tactile and sensory qualities (Swilley, 2012). According to Wang et al. (2013), stimuli are also included within the realm of aesthetic value. Individual preferences for aesthetic responses can be employed to differentiate products and foster product preferences (Landwehr et al., 2013). Visual aesthetics are evident in numerous customer experiences, most prominently in fashion and the arts, and are also subtly significant in consumer electronic products such as personal computers, tablets, and smartphones (Yamamoto and Lambert, 1994). When applied to 5G smartphones, aesthetic value takes the form of artistic properties such as form, color, and design (Le and Yang, 2021).

HYPOTHESIS DEVELOPMENT

TPB Attributes

Within the framework of TPB, the three variables - attitude, subjective norm, and perceived behavior control - collectively contribute to the formation of purchase intention. In this study, “attitude” refers to consumers' overall evaluation of the purchase and use of 5G smartphones. "Subjective norm" is defined as consumers' perception of whether the significant people in their lives believe they should or should not purchase 5G smartphones. "Perceived behavior control" in this context pertains to the level of ease or difficulty consumers perceive in relation to the act of purchasing 5G smartphones.

The research findings Dhar and Dhar (2022) indicate that all three TPB variables, namely attitude, subjective norm, and perceived behavior control, exert a positive and significant influence on the purchase intention of smartphones. In a different study by Shaheen et al. (2020), the TPB attributes, namely attitude and perceived behavior control, have demonstrated a positive and significant impact on the purchase intention of smartphones.

H1: Attitude has a significant effect on purchase intention.

H2: Subjective norm has a significant effect on purchase intention.

H3: Perceived behavior control has a significant effect on purchase intention.

Customer Preferences

Several other studies indicate that a more positive customer preference increases the likelihood of purchasing a smartphone (Tzou and Lu, 2009; Hsiao, 2013). A study investigating the purchase intention of 5G smartphones in Vietnam reported a positive influence between customer preferences and the purchase intention of 5G smartphones in Vietnam (Le and Yang, 2021). Based on these findings, the following hypotheses can be posited within the context of this research.

H4: Customer preference has a significant effect on purchase intention.

Price

Several studies consistently demonstrate the pivotal role of price in determining the purchase intention of smartphones (Osman et al., 2012; Lay-Yee et al., 2013). In another research effort authored by Le and Yang (2021), it is asserted that there exists a positive and significant influence between the price of 5G smartphones and customer preferences in Vietnam.

H5: Price has a significant influence on customer preferences.

Product Feature

As found in several prior studies, product features are a significant factor for both purchase intention and behavior (Ayodele et al., 2016). This underscores the opportunity for stakeholders to enhance smartphone sales by offering more appealing features (Rahim et al., 2016). In another study, product features positively and significantly impacted customer preferences for 5G smartphones in Vietnam (Le and Yang, 2021). Building upon these statements, the following hypotheses can be posited within the context of this research.

H6: Product features have a significant influence on customer preferences.

Aesthetic Value

Several prior relevant studies support the significance of aesthetic values in determining purchase intention (Sonderegger and Sauer, 2010). Additionally, according to Le and Yang (2021), there is evidence of a positive influence between the aesthetic values of 5G smartphones and customer preferences in Vietnam. Consequently, the following hypotheses can be posited within the scope of this research.

H7: Aesthetic value has a significant influence on customer preferences.
Facilitating Condition

Venkatesh et al. (2003) stated that facilitating conditions influence the extent to which individuals believe that infrastructure, technical support, and other facilities are available when they adopt or use technology, products, and services. In a study conducted by Pitchayadejanant (2011) investigating the intention to use smartphones in Bangkok, it was observed that there exists a positive and significant influence between facilitating conditions and behavioral intention, specifically, the intention to use smartphones. Furthermore, according to Mustafa et al. (2022), who examined the factors affecting the acceptance of 5G technology, a positive and significant influence was found between facilitating conditions and the use of 5G technology. As such, the following hypotheses can be posited within the scope of this research.

\[ H_8: \text{Facilitating conditions have a significant influence on purchase intention.} \]

METHOD

This research of influencing factors on the smartphone 5G in Indonesia using the extended TPB approach was carried out in Indonesia for three months, from July 2023 to September 2023. The data used in this research comes from primary and secondary data. Researchers obtain primary data through data collection processing by distributing questionnaires to respondents online. Secondary data was obtained from literature studies from various sources. Respondent profiles are outlined based on demographic characteristics such as age, sex, occupation, education level, domicile, and income level.

In this research, TPB elements (attitude, subjective norm, perceived behavior control), facilitating condition, customer preference, price, product features, and aesthetic values become independent variables. At the same time, the purchase intention of smartphone 5G and customer preferences are dependent variables. Questions are given as a Likert scale with 1–5 intervals.

The population of this research is Indonesian people who meet the requirements. Respondent requirements specified in this study are respondents with a minimum age of 21 years who do not yet have a 5G smartphone and are domiciled in Indonesia. Determination of the minimum age of 21 because, according to article 330 of the Criminal Code, at that age, it is considered an adult to be able to make or influence decisions. The sampling technique in this study used a non-probability sampling technique with a voluntary sampling technique. Determining the minimum number of samples in this study uses the formula for the number of indicators multiplied by 5 (Hair et al., 2014). In this study, the number of indicators or question items totaled 33. Based on this, the minimum sample required in this research was 180. The number of respondents in this study amounted to 335 respondents. The conceptual research framework can be seen in Figure 2.

This research used a quantitative approach and Structural Equation Modeling (SEM) to analyze the factors influencing purchase intentions for
smartphone 5G. The analysis tool used is SmartPLS version 3.0. SEM is used to analyze the influence of independent variables on the dependent variable. The results of the analysis will be used as a marketing strategic recommendation for 5G smartphone manufacturers.

### Table 1. Variable Operational Definitions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Operational Definitions</th>
<th>Indicator</th>
<th>Code</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude</td>
<td>An attitude towards behavior or a person’s assessment of behavior</td>
<td>Urgency to use</td>
<td>AT1</td>
<td>(Lee, 2009; Dhar and Dhar, 2022)</td>
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<tr>
<td></td>
<td></td>
<td>The right idea</td>
<td>AT2</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Wise idea for work</td>
<td>AT3</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Fun things to use</td>
<td>AT4</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Positive/profitable idea</td>
<td>AT5</td>
<td></td>
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<tr>
<td>Subjective Norm</td>
<td>Social pressure or one’s views on other people’s</td>
<td>Family encouragement</td>
<td>SN1</td>
<td>(Huang and Ge, 2019; Gunawan et al., 2022)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Friend encouragement</td>
<td>SN2</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Advertising Influence has</td>
<td>SN3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Work Environment Influence</td>
<td>SN4</td>
<td></td>
</tr>
<tr>
<td>Perceived Behavior Control</td>
<td>Perceived ease or difficulty in performing a behavior</td>
<td>Financial ability</td>
<td>PBC1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Belief in personal ability</td>
<td>PBC2</td>
<td></td>
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<tr>
<td>Customer Preferences</td>
<td>Shows the likes or dislikes of consumers from the various choices of existing service-products</td>
<td>Functional Impression Comparison.</td>
<td>CP1</td>
<td>(Le and Yang, 2021)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Activity Benefit comparison</td>
<td>CP2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Like or dislike comparison</td>
<td>CP3</td>
<td></td>
</tr>
<tr>
<td>Price</td>
<td>Price refers to the sacrifice to own the product. Price can present all the benefits that are provided when owning or using a product.</td>
<td>Selling price</td>
<td>PR1</td>
<td>(Le and Yang, 2021; Cheong and Park, 2005)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Price fluctuation</td>
<td>PR2</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Price differences</td>
<td>PR3</td>
<td></td>
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<td></td>
<td></td>
<td>Price policy</td>
<td>PR4</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Additional price policy</td>
<td>PR5</td>
<td></td>
</tr>
<tr>
<td>Product Feature</td>
<td>Features in 5G smartphone products that can satisfy consumer needs and desires</td>
<td>Breakthrough feature</td>
<td>PF1</td>
<td>(Le and Yang, 2021; Chow et al., 2010)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5G applications</td>
<td>PF2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>IoT applications</td>
<td>PF3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Operating system</td>
<td>PF4</td>
<td></td>
</tr>
<tr>
<td>Aesthetic Value</td>
<td>It includes harmony, beauty, and touch in the material world. In smartphones in the form of shape, design, color, and texture</td>
<td>Color</td>
<td>AV1</td>
<td>(Le and Yang, 2021; Toufani et al., 2017)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Shape</td>
<td>AV2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Texture</td>
<td>AV3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Design</td>
<td>AV4</td>
<td></td>
</tr>
<tr>
<td>Facilitating Condition</td>
<td>The degree to which an individual believes that the infrastructure (availability of a 5G network) can support the use of the technology</td>
<td>Residential 5G network availability</td>
<td>FC1</td>
<td>(Venkatesh et al., 2003)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Workplace 5G network availability</td>
<td>FC2</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Customer service availability</td>
<td>FC3</td>
<td></td>
</tr>
<tr>
<td>Purchase Intention</td>
<td>Decision-making by customers after analyzing the reasons for buying a certain brand of product</td>
<td>Looking for more information</td>
<td>PI1</td>
<td>(Le and Yang, 2021)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Plan to buy</td>
<td>PI2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Willingness to pay more</td>
<td>PI3</td>
<td></td>
</tr>
</tbody>
</table>
RESULTS

Respondent Characteristics

Based on the respondent characteristics of respondents (Table 2), it was found that the majority who took part in the survey were female, as many as 208 people (62.1%), with the majority of Generation Z ages 21-26, as many as 214 respondents (63.9%). The majority with the latest education in bachelor is the largest number, namely 180 respondents (53.7%). The majority of respondents who had jobs as students comprised the largest number, 128 respondents (38.2%). The majority of respondents, namely 123 respondents (36.7%), have an income of less than Rp. 1,500,000. Then, the majority of respondents, as many as 186 respondents (55.5%), live in Java Island, and the majority of respondents, as many as 272 respondents (81.2%), live in areas with no 5G network.

Validity Test

This validity test is indicated by a loading factor value > 0.7, so indicators with a loading factor value < 0.7 can be eliminated. The initial model and its calculations can be seen in Figure 3. The results show that all 33 indicators are considered valid because they have a loading factor value > 0.7. Therefore, all indicators in this research are considered valid.

The next step in validating the assessment involves considering the Average Variance Extracted (AVE) values. AVE is a metric that assesses the extent to which indicators explain their respective constructs. Each construct must have an AVE value > 0.5 to be deemed adequately explained by its indicators.

Based on the result, all variables having a significant AVE > 5%, it can be concluded that the research model is valid. The variable is declared valid, meaning there is a similarity between the data collected and the actual data on the measured object. There is a similarity between the test results and the actual conditions of the person being measured. Attitude has an AVE value of 0.71. Respondents show that their intention to purchase smartphone 5G is based on confidence, urgency, and perceived benefits of using smartphone 5G. The subjective norm is 0.76. Respondent intends to purchase smartphone 5G because of informa-
tion from people around them or recommendations from people they trust and from advertising. Perceived behavior control of 0.83 indicates that the respondent intends to purchase a smartphone 5G because of financial ability and belief in their ability. On the other hand, customer preferences are 0.77, meaning respondents prefer 5G smartphones to other smartphones. Price has an AVE value of 0.63. Respondents get preferences about 5G smartphones based on selling price, price fluctuation, price differences, price policy, and additional price policy. The product feature is 0.72. Respondents get preferences about 5G smartphones based on color, shape, texture, and design. The facilitating condition has an AVE value of 0.78. Respondent intends to purchase a smartphone 5G because of 5G network availability at their residence and work and from customer service. Purchase intention is 0.70. It shows that respondents are interested in buying a 5G smartphone because of the information they have, the planning to buy it, and their willingness to pay more.

Reliability Test

A construct is considered reliable when both Cronbach's alpha (CA) and composite reliability (CR) values are > 0.6 and > 0.7, respectively. In accordance with this criterion, the results obtained for the reliability assessment in this study indicate that all variables meet these requirements. Therefore, it can be concluded that the constructs established within this research exhibit reliability.

The results show that each variable has a composite reliability value exceeding 0.7. With the lowest value of 0.88 from the purchase intention and the highest value of 0.93 from the subjective norm. From these results, it can be concluded that the research model meets the value of composite reliability. While the value of Cronbach’s alpha from the research model. The table shows that each variable has a Cronbach’s alpha value of 0.6, with the lowest value of 0.85 from the customer preferences and price variable and the highest value of 0.90 from the attitude variable. From these results, it can be concluded that the research model meets the value of Cronbach’s alpha. Based on the aforementioned model, it can be deduced that it satisfactorily fulfills the Composite Reliability and Cronbach's Alpha criteria. Consequently, it can be ascertained that the research model complies with the established reliability standards, rendering it a dependable and trustworthy measuring instrument.

Discriminant Validity

Discriminant validity characterizes the extent to which a latent variable truly differs from other latent variables. In this study, discriminant validity was assessed using the Fornell-Larcker Criterion. This approach compares the square root of the Average Variance Extracted (AVE) for each latent variable, and favorable outcomes indicate that the square root of AVE for each latent variable is higher than that of other variables. The AVE square root comparison results for each latent variable in this study are higher than for other variables. This shows that the discriminant validity of this research using the Fornell-Larcker Criteria can be stated as quite satisfactory.

Determination Coefficient Test / R Square (R²)

The structural (inner) model is evaluated using R² for the dependent construct. R² measures the variation of changes in the independent variable to the dependent. The higher the R² value, the better the prediction model of the built research model. The inner model is evaluated by looking at the Coefficient of Determination. The coefficient of determination aims to measure how far the model can explain the dependent variable's variance. The value of the coefficient of determination is between 0 and 1. The coefficient of determination (R²) value is close to 1.

The relationship between constructs based on the adjusted R-Square value can be explained by the Customer Preferences (CP) variable being 0.44. This indicates that 44% of the CP variable can be influenced by price, product features, and aesthetic value, while other variables beyond those studied influence the remaining 66%. While the adjusted R-Square value can be explained that the Purchase Intention (PI) variable is 0.62, this indicates that 62% of the PI variable can be influenced by Attitude, Subjective Norm, Perceived Behavior Control, Customer Preferences, and Facilitating Condition. In contrast, the other variables beyond those studied affect the remaining 38%.
Direct and Indirect Effect Hypotheses Test

Testing the hypothesis between constructs was carried out using the bootstrap resampling method. Calculation tests the hypothesis using SmartPLS 3.0. Based on Table 3, it is known that the T-Statistic value is 2.70, which is greater than the T-Table value = 1.96 and the P-Value = 0.01, which is smaller than α = 0.05, meaning that Ha is accepted, namely that there is an influence from the Attitude variable on Purchase Intention. Thus, the H1 hypothesis in this study states that “Attitude has a significant effect on purchase intention,” is accepted.

The T-Statistic value is 2.70, which is greater than the T-Table value = 1.96 and the P-Value = 0.01, which is smaller than α = 0.05, meaning that Ha is accepted, namely that there is an influence from the subjective norm variable on purchase intention. Thus, the H2 hypothesis in this study states that “Subjective norm has a significant effect on purchase intention” is accepted. The T-Statistic value is 2.00, which is greater than the T-Table value = 1.96, and the P-Value = 0.05, which is equal to α = 0.05, meaning that Ha is accepted, namely that there is an influence from the Perceived Behavior Control variable on Purchase Intention. Thus, the H3 hypothesis in this study states that “Perceived behavior control has a significant effect on purchase intention” is accepted.

The T-Statistic value is 3.88, which is greater than the T-Table value = 1.96, and the P-Value = 0.00, which is smaller than α = 0.05, meaning that Ha is accepted, namely that there is an influence from the Customer Preferences variable on Purchase Intention. Thus, the H4 hypothesis in this study states that “Customer preference has a significant effect on purchase intention” is accepted. The T-Statistic value is 1.83, which is smaller than the T-Table value = 1.96, and the P-Value = 0.07, which is greater than α = 0.05, meaning that Ha is rejected, namely that there is no influence from the Price variable on Customer Preferences. Thus, the H5 hypothesis in this study states that “Price has a significant influence on customer preferences,” is rejected.

The T-Statistic value is 5.06, which is greater than the T-Table value = 1.96, and the P-Value = 0.00, which is smaller than α = 0.05, meaning that Ha is accepted, namely that there is an influence from the Product Feature variable on Customer Preferences. Thus, the H6 hypothesis in this study states that “Product feature has a significant effect on customer preferences” is accepted. The T-Statistic value is 3.99, which is greater than the T-Table value = 1.96, and the P-Value = 0.00, which is smaller than α = 0.05, meaning that Ha is accepted, namely that there is an influence from the Aesthetic Value variable on Customer Preferences. Thus, the H7 hypothesis in this study states that “Aesthetic value has a significant effect on customer preferences” is accepted. The T-Statistic value is 2.90, which is greater than the T-Table value = 1.96, and the P-Value = 0.00, which is smaller than α = 0.05, meaning that Ha is accepted, namely that there is an influence from the Facilitating Condition variable on Purchase Intention. Thus, the H8 hypothesis in this study states that “Facilitating condition has a significant effect on purchase intention” is accepted.

<table>
<thead>
<tr>
<th>Direct effect</th>
<th>Original Sample</th>
<th>T-Statistic</th>
<th>P Values</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude → Purchase Intention</td>
<td>0.24</td>
<td>2.70</td>
<td>0.01</td>
<td>Significant</td>
</tr>
<tr>
<td>Subjective Norm → Purchase Intention</td>
<td>0.15</td>
<td>2.70</td>
<td>0.01</td>
<td>Significant</td>
</tr>
<tr>
<td>Perceived Behavior Control → Purchase Intention</td>
<td>0.13</td>
<td>2.00</td>
<td>0.05</td>
<td>Significant</td>
</tr>
<tr>
<td>Customer Preferences → Purchase Intention</td>
<td>0.24</td>
<td>3.88</td>
<td>0.00</td>
<td>Significant</td>
</tr>
<tr>
<td>Price → Customer Preferences</td>
<td>0.11</td>
<td>1.83</td>
<td>0.07</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Product Feature → Customer Preferences</td>
<td>0.36</td>
<td>5.06</td>
<td>0.00</td>
<td>Significant</td>
</tr>
<tr>
<td>Aesthetic Value Customer Preferences</td>
<td>0.29</td>
<td>3.99</td>
<td>0.00</td>
<td>Significant</td>
</tr>
<tr>
<td>Facilitating Condition → Purchase Intention</td>
<td>0.19</td>
<td>2.90</td>
<td>0.00</td>
<td>Significant</td>
</tr>
</tbody>
</table>
Table 4. Indirect Influence of The Research Model

<table>
<thead>
<tr>
<th>Indirect effect</th>
<th>Original Sample</th>
<th>T-Statistic</th>
<th>P Values</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price → Customer Preferences → Purchase Intention</td>
<td>0.03</td>
<td>1.56</td>
<td>0.12</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Product Feature → Customer Preferences → Purchase Intention</td>
<td>0.09</td>
<td>2.99</td>
<td>0.00</td>
<td>Significant</td>
</tr>
<tr>
<td>Aesthetic value → Customer Preferences → Purchase Intention</td>
<td>0.07</td>
<td>2.68</td>
<td>0.01</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Table 4 illustrates the indirect influence of this research, revealing that price, product features, and aesthetic value affect purchase intention through customer preferences. However, the analysis indicates that price does not significantly influence purchase intention through customer preferences. This is supported by a T-statistic value of 1.56, below the critical T-Table value of 1.96, and a P-value of 0.12, exceeding the significance level (α) of 0.05. In contrast, product feature significantly influences purchase intention through customer preferences, with a T-Statistic value of 2.99, surpassing the critical T-Table value of 1.96, and a P-value of 0.00, below the significance level (α) of 0.05. Additionally, aesthetic value demonstrates a significant influence on purchase intention through customer preferences, with a T-Statistic value of 2.68, surpassing the critical T-Table value of 1.96, and a P-value of 0.01, below the significance level (α) of 0.05.

DISCUSSION

The Influence of Attitude on Purchase Intention

After analyzing using the SmartPLS SEM, it can be explained that attitudes directly influence purchase intention. It is supported by research conducted by Shaheen et al. (2020) and Dhar and Dhar (2022), who argue that there is a powerful influence between attitude and purchase intention smartphone. According to Kwon and Onwuegbuzie (2005), attitude has a direct influence on the intention of Information and Communication Technology (ICT) use. Researchers suggest that purchase intention results from consumers' decision-making process when buying a product or service, influenced by their acquired information and the desirability and appeal of the items they wish to purchase. Based on this research, 5G smartphone manufacturers must continue to provide a positive and profitable image for anyone who uses 5G smartphone products. Especially in marketing products, that narrative must be built on advertisements and campaigns on social media or print media.

The Influence of Subjective Norms on Purchase Intention

The result showed that subjective norms have a significant influence on purchase intention. It is triggered by perceptions or beliefs of people around them or people they trust and by advertising about smartphone 5G. These results align with research conducted by Dhar and Dhar (2022), who argue that subjective norm significantly influences purchase intention. According to Kwon and Onwuegbuzie (2005), the subjective norm has a direct influence on the intention of Information and Communication Technology (ICT) use. Subjective norms also have a significant influence on behavior and intention to use smartphones in the Arab world (Abbas, 2016). Researchers imply that 5G smartphone manufacturers are expected to influence the Indonesian populace to adopt and purchase 5G smartphones by enhancing their advertising efforts across various media channels.

The Influence of Perceived Behavior Control on Purchase Intention

Perceived behavior control significantly influences purchase intention. These results align with research conducted by Shaheen et al. (2020) and Dhar and Dhar (2022), who argue that perceived behavior control also significantly influences purchase intention. According to Benita et al. (2023), perceived behavioral control has been identified as a significant predictor for the intention to utilize a specific smartphone brand, namely, the iPhone. Researchers imply that the ease or diffi-
difficulty experienced in purchasing a 5G smartphone is determined by their financial ability and desire to use it. The 5G smartphone manufacturers should leverage marketing communication to provide consumers with knowledge regarding the value for money they can obtain when using a 5G smartphone. Furthermore, 5G smartphone manufacturers need to furnish comprehensive information about the advantages of 5G smartphones compared to other devices.

**The Influence of Customer Preferences on Purchase Intention**

Based on the result, customer preferences also significantly influence purchase intention. It is supported by research conducted by Le and Yang (2021), which stated that customer preference significantly influences the purchase intention of smartphone 5G in Vietnam. Several other studies show that a more positive customer preference will result in a higher probability of buying a smartphone (Tzou and Lu, 2009) (Hsiao, 2013). The researchers suggest that customer preferences are shaped through comparisons between 5G smartphones and other smartphones. The aspects compared include quality, innovative features, and the benefits derived. 5G smartphone manufacturers need to enhance their products’ quality and innovative features so that the benefits derived by 5G smartphone users exceed those of using other smartphones.

**The Influence of Price on Customer Preferences**

The result showed that price directly and indirectly has no significant influence on purchase intention. It is not in line with the research of Le and Yang (2021), who stated that price significantly influences purchase intention. Osman et al. (2012) prove that price has a significant influence on smartphone purchase intentions. Research conducted by Lay Yee (2013), who looked for factors influencing purchase decisions among Malaysian Generation Y, stated that price has the least impact on Smartphone users’ purchase decisions, which indicates that pricing strategy should not be the main concern for the company. Researchers guess that price is not the primary determinant for consumers in purchasing a 5G smartphone; instead, they prioritize the value derived from the features offered. Furthermore, it is also suggested that the smartphones have become a necessity, rendering price less of a concern.

**The Influence of Product Features on Customer Preferences**

Product features significantly influence purchase intention. These results align with research conducted by Le and Yang (2021), which stated that product features significantly influence customer preference for smartphone 5G in Vietnam. Research conducted by Lay-Yee et al. (2013) concluded that there is a significant correlation between Product Feature Concern and Customer Purchase Decision. If a Smartphone provider provides a Smartphone with a very good product feature, users will still buy it even if its price is higher. Additionally, another study indicated that the features of smartphones play a crucial role in influencing purchasing behavior (Ayodele et al., 2016; Osman et al., 2012; Chow et al., 2010; Malviya et al., 2013). Researchers suggest that the satisfaction of needs and desires through product features is shaped by breakthrough features, the operating system, 5G, and IoT applications. 5G smartphone manufacturers must create and enhance breakthrough features and the available operating system in 5G smartphones. Furthermore, there is a need to improve supporting software that can maximize the utilization of the available 5G network.

**The Influence of Aesthetic Value on Customer Preferences**

Aesthetic value also has a significant influence on purchase intention. These results align with research conducted by Le and Yang (2021), which stated that aesthetic value significantly influences the purchase intention of smartphone 5G in Vietnam. Previous relevant research by Sonderregger and Sauer (2010) supports the idea that aesthetic value is important for determining purchase intentions. Other research finds that the aesthetic value of smartphones has a significant influence on purchasing behavior (Osman et al., 2012; Leelakulthanit and Hongacharu, 2012). Researchers imply that aesthetic value is formed based on consumer considerations when purchasing a 5G smartphone, considering color, shape, texture, and design factors. In determining the color, shape, texture, and design, the 5G smartphone manufacturers
must align with the customers’ preferences.

The Influence of Facilitating Conditions on Purchase Intention

The result showed that facilitating conditions have a significant influence on purchase intention. This is supported by research conducted by Pitchayadejanant (2011), who stated that facilitating conditions significantly affect the purchase intention of smartphones. According to Van Dijk (2005), lack of such digital skills would make individuals perceive difficulty in Information and Communication Technologies (ICT) use, so a favorable set of facilitating conditions would positively influence users’ decision to adopt ICT. Mustafa et al. (2022), who examined the factors that influence the acceptance of 5G technology, stated that there was a positive and significant influence between facilitating conditions and the use of 5G technology. Researchers imply that individual trust in infrastructure availability is shaped by 5G network availability at their residence and workplace and the quality of customer service. 5G smartphone manufacturers need to enhance efficient customer service and collaborate with government and internet service providers to continuously expand the 5G network in Indonesia.

Indirect Effect on Purchase Intention through Customer Preferences

Price has no significant indirect influence on purchase intention through customer preferences. This suggests that customer preferences do not serve as a mediator between price and purchase intention. This finding contradicts the results of Le and Yang (2021), which demonstrated that customer preferences act as a mediator between price and purchase intention for 5G smartphones. This outcome may indicate that other factors, aside from customer preferences, play a more dominant role in explaining the relationship between price and purchase intention. Previous studies have identified alternative variables that can elucidate the connection between price and purchase intention. Halim et al. (2021) found that price indirectly influences smartphone purchase intention through customer satisfaction. Another study by Chen et al. (2018) discovered that brand image positively mediates the relationship between product attributes and purchase intention, with price being part of these product attributes.

Product features have a significant indirect influence on purchase intention through customer preferences. A prior study substantiating this statement is the research conducted by Le and Yang (2021), indicating that customer preferences act as a mediator between product features and purchase intention 5G smartphone. 5G smartphone manufacturers can choose a strategy that indirectly enhances purchase intention by making customer preferences for 5G smartphones superior to others. This can be achieved through campaigns highlighting the advantages of breakthrough features, operating systems, and IoT applications, followed by a comparison with other smartphone products. Therefore, the research and development department of 5G smartphone manufacturers should focus on feature excellence and clear differentiation from other smartphones.

Likewise, aesthetic value significantly indirectly influences purchase intention through customer preferences. A previous study supporting this assertion is the research conducted by Le and Yang (2021), which demonstrates that customer preferences serve as a mediator between aesthetic value and purchase intention for 5G smartphones. 5G smartphone manufacturers can opt for a strategic approach to indirectly enhance customer preferences regarding the aesthetic value of 5G smartphones over other smartphones. This can be achieved by aligning the smartphone design and development process with customer desires, resulting in a distinctive 5G smartphone design that sets it apart from other smartphones. Consequently, during the marketing phase, highlighting these design differentiators will create the perception that 5G smartphones are superior to others.

IMPLICATIONS

In the context of managerial implications, there are steps that 5G smartphone manufacturers should take to enhance the purchase intention of 5G smartphones in Indonesia, first, by maintaining a favorable perception among the public regarding the idea of using 5G smartphones with high-speed internet, which is seen as a positive and beneficial choice. This can be facilitated by keeping the pricing in line with the quality and utility value offered. Secondly, 5G smartphone manufacturers can increase their advertising efforts across vari-
ous media channels. Furthermore, from a technical perspective, they can initiate discussions about the advantages of 5G smartphones on social media platforms when launching a new product.

Subsequently, it is crucial for 5G smartphone manufacturers to create a clear distinction between their products and other smartphones in the market. The competitive edge of 5G smartphones lies in their innovative features and supporting software that can maximize the potential of 5G networks. Therefore, the focus of product development should be directed towards these aspects. In addition to feature and software development, product design and aesthetics should also be emphasized. Manufacturers can conduct market analysis to identify prevailing trends in shape, design, and color preferences, thus ensuring differentiation in features, supporting software, design, and aesthetics compared to other smartphones. To cultivate purchase intention among the consumers, emphasis should be placed on the practical applicability of the advantages, with a specific focus on product development. This should be complemented by efficient and prompt after-sales services, including customer service.

RECOMMENDATIONS

Subsequent research could consider introducing variables related to government regulations and policies. This would enable an exploration of whether the government's efforts to expand the 5G network might influence the purchase intention of 5G smartphones in Indonesia. It is indisputable that the widespread deployment of 5G networks in Indonesia depends on government policies and internet service providers rather than 5G smartphone manufacturers. Furthermore, future research could expand its scope to encompass variables related to purchase behavior, extending beyond mere purchase intention.

This research possesses several limitations. First, it lacks variables pertaining to the government's policy perspective concerning the expansion plans for the 5G network. This is attributed to the fact that the government plays a pivotal role in determining the availability of internet networks in various regions across Indonesia. The second limitation pertains to the scope of this study, as it only examines purchase intention and does not extend to the examination of purchase behavior. Consequently, the data obtained reflects prospective customers' preferences rather than those who have already made purchases of 5G smartphones.

CONCLUSIONS

Attitude, subjective norms, perceived behavior control, and facilitating conditions influence the intention to purchase 5G smartphones in Indonesia. Product features and aesthetic value impact customer preferences, while price does not. 5G smartphone manufacturers can leverage customer preferences by distinguishing product features and aesthetic value between the two products. Promotion can take the form of campaigns highlighting the benefits of using 5G smartphones, the offered product features, and the value for money obtained through digital and print media. Fast and accessible after-sales customer service can enhance purchase intentions for 5G smartphones in Indonesia. On the other hand, although 5G network availability is beyond the control of 5G smartphone manufacturers, efforts can be made to collaborate with the government and 5G service providers to expand 5G network availability in Indonesia.

REFERENCES

Al-Queisi, K., Dennis, C., Alamanos, E., and Jayawardhena, C. 2014. Website Design Quality


Kwon, N. and Onwuegbuzie, A. 2005. Modeling the Factors Affecting Individuals’ Use of


