

Purchasing Behavior of Electric Motorcycles in Bali: The Mediating Role of Consumer Expectancy

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Abstract

The development of electric vehicles, particularly electric motorcycles, has seen an increase in sales in Indonesia; however, their contribution remains significantly low compared to conventional motorcycles. Despite being more competitively priced, electric motorcycles accounted for only 1% of total motorcycle sales in 2022. This phenomenon highlights an intriguing gap for research, particularly concerning consumer purchasing behavior. This study aims to analyze the influence of perceived behavioral control, herding behavior, sustainability attitude, motivation, and facilitating conditions on the purchasing behavior of electric motorcycles in Bali, with consumer expectancy as a mediating variable. The research employs a quantitative method by distributing questionnaires to electric motorcycle consumers and analyzes the data using SEM-PLS. The findings reveal that perceived behavioral control negatively influences purchasing behavior, while herding behavior, sustainability attitude, and facilitating conditions have a positive impact. Interestingly, motivation does not affect purchasing behavior. Additionally, consumer expectancy mediates the influence of sustainability attitude, motivation, and facilitating conditions on purchasing behavior but fails to mediate the effect of herding behavior.

Keywords: *Electric Motorcycles, Purchase Behavior, Consumer Expectancy.*



A. INTRODUCTION

Changes continue to unfold in the era of globalization, one of which is the emergence of the eco-friendly energy concept. The adoption of eco-friendly energy has driven a shift from fossil fuels to electric energy (Gao et al., 2023). Electric vehicles have become a notable phenomenon, demonstrating the automotive industry's vision to reduce carbon emissions caused by motor vehicle exhaust (Kucuksari et al., 2023). The advent of electric vehicles has brought significant transformations to the automotive industry and contributed to technological advancements across various sectors. Electric vehicles are generally more energy-efficient compared to conventional fossil-fuel-powered vehicles (Veza et al., 2023). Electric propulsion systems tend to have higher efficiency, enabling lower energy consumption for the same travel distance.

Electric vehicles use electric motors as a power source, which are simpler and require less maintenance compared to internal combustion engines in conventional vehicles (Buhmann & Criado, 2023). This contributes to lower maintenance and repair costs, as well as increased vehicle durability. The advantages of electric vehicles have certainly become a key selling point for manufacturers in marketing their products. The shift from conventional vehicles to electric vehicles is also supported by

marketing strategies that highlight these advantages. Marketing efforts for electric vehicles have yielded significant results in the sales of electric motorcycles in Indonesia.

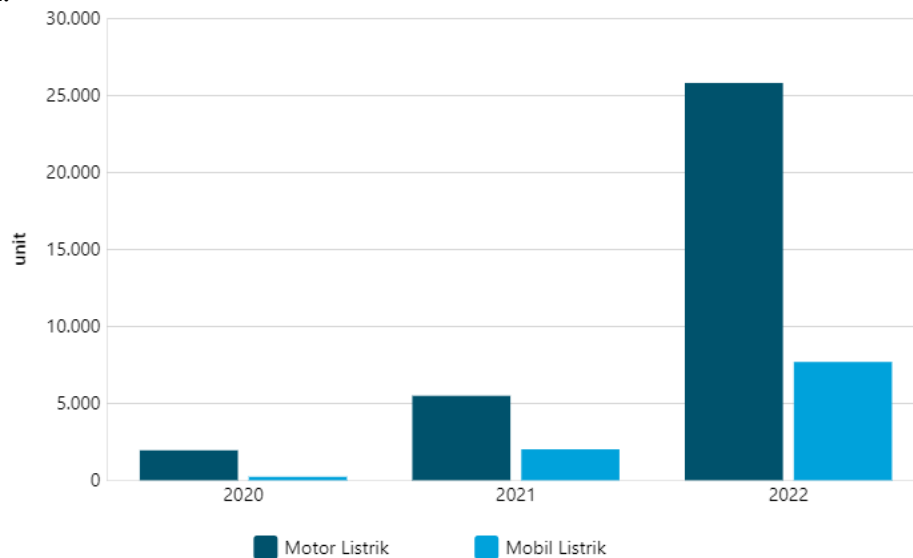


Figure 1. Electric Motorcycle Sales in Indonesia from 2020 to 2022

Source: (Annur, 2023)

Based on Figure 1.1 above, it can be seen that there has been an increase in electric motorcycle sales in Indonesia over the past three years. The use of electric motorcycles in 2020 was only 1,947 units. However, this figure significantly rose to 25,782 units in 2022. The increased sales indicate that electric vehicles are gaining popularity among Indonesians. Nevertheless, despite the rise in electric motorcycle sales, this growth is not significant when compared to the sales of conventional motorcycles. According to okezone.com, electric motorcycle sales in Indonesia have indeed increased, but the number remains insignificant, accounting for only one percent of the total motorcycle sales in 2022 (Ramadan, 2023). This situation presents an interesting gap phenomenon for research, where, despite the increase, electric motorcycles are still unable to compete with conventional motorcycles. Even though the price of electric motorcycles is relatively competitive and even cheaper compared to conventional motorcycles, their sales are still not significant.

This phenomenon indicates the need for a study on the purchase behavior of the public towards electric motorcycles. One of the factors that may influence purchase behavior is perceived behavioral control (Shakeel, 2022). Perceived Behavioral Control (PBC) reflects the extent to which an individual feels they have control or the ability to perform a certain action or behavior (Shakeel, 2022). It includes an individual's perception of how easy or difficult it is to carry out that behavior. An example of Perceived Behavioral Control in the context of consumer behavior may involve considerations of how capable a person feels in purchasing a particular product or to what extent they feel they have control over the factors influencing their purchasing decision. Research conducted by Shakeel (2022) shows that perceived behavioral control has a positive effect on purchase behavior. However, a study by

Deka et al., (2023) found that perceived behavioral control does not influence purchase behavior.

Herding behavior is also suggested to influence purchase behavior. Herding behavior refers to the tendency to follow the decisions or actions of others (Yu et al., 2018; Golder & Kayser, 2019; Hsieh et al., 2020). This imitative behavior often occurs because individuals fear missing out on trends or similar phenomena. In the context of purchasing electric vehicles, herding behavior could be one of the driving factors. This is supported by research from Golder & Kayser, (2019); Kizys et al., (2021); Madaan & Singh (2019) which shows that herding behavior is an aspect that significantly influences an individual's purchase behavior. However, contrasting findings from Deka et al., (2023) reveal that herding behavior does not have an impact on purchase behavior.

In addition to herding, sustainability attitude is also indicated as a factor influencing purchase behavior. Sustainability attitude reflects an individual's or group's perspectives and judgments regarding sustainability or environmental sustainability issues (Cruz-Jesus et al., 2023). This attitude encompasses beliefs, values, and subjective evaluations of actions or behaviors that contribute—or do not contribute—to sustainability goals. The more an individual perceives sustainability as a positive concept, the more likely it is to influence their purchasing behavior. Research by Sugihara & Hardman (2022) indicates that sustainability is a crucial factor in enhancing consumer behavior towards purchasing. However, contrasting findings by Mpoi et al., (2023) reveal that sustainability does not affect consumer purchase behavior.

Motivation is the internal or external force that drives individuals to achieve goals or take specific actions. There are two main types of motivation: intrinsic (internal) and extrinsic (external). Motivation refers to the drive that arises from certain objectives or goals that individuals aim to achieve (Buhmann & Criado, 2023). It is closely related to the goals or objectives individuals want to accomplish, with the desire to achieve or surpass a particular target often serving as a source of motivation. Research by Sugihara & Hardman (2022) and research by Buhmann & Criado (2023) shows that motivation can enhance or positively influence purchase behavior. However, contrasting findings from Kucuksari et al., (2023) indicate that motivation does not affect consumer purchase behavior.

Facilitating conditions are one of the elements of the Technology Acceptance Model (TAM) proposed by Fred Davis. In this context, facilitating conditions refer to factors or conditions that can either support or hinder the use of a technology or product (Chairia et al., 2020). When a product or service offers facilitating conditions that enhance ease of use, the likelihood of consumers making a purchase increases. Factors such as an intuitive interface, clear instructions, and effective customer support can influence consumer perceptions of ease of use. Research by Butt & Singh (2023) demonstrates that facilitating conditions positively influence purchase behavior. However, contrasting findings by Utomo et al., (2021) suggest that facilitating conditions do not affect purchase behavior.

The inconsistencies in previous research findings leave the influence on electric motorcycle purchase behavior unclear. Based on this, the study employs a mediating variable to bridge the relationship between perceived behavioral control, herding behavior, sustainability attitude, motivation, and facilitating conditions with purchase behavior. The mediating variable used in this research is consumer expectancy. This choice is based on the current phenomenon of electric vehicle adoption in Indonesia, where consumers have certain expectations before purchasing an electric vehicle. These expectations include aspects such as convenience, cost efficiency, and more. Research by Zhao et al., (2019) indicates that consumer expectations can serve as a bridge or mediator in influencing their purchasing decisions.

B. LITERATURE REVIEW

Marketing management theory encompasses the conceptual framework and fundamental principles used to plan, implement, and control marketing activities within an organization (Kotler & Keller, 2018). This theory provides guidance on how organizations can achieve their marketing objectives effectively and efficiently.

Purchase behavior refers to the habits or actions of consumers when purchasing a product. It involves the actions and decisions made by consumers during the process of buying goods or services (Deka et al., 2023). This includes a series of steps taken by individuals or organizations before, during, and after a purchase. Purchase behavior can be influenced by various factors, such as consumer needs and wants, past experiences, product information, promotions, and environmental factors.

C. METHOD

This study adopts a quantitative approach, targeting the entire population of electric motorcycle users in Bali Province, totaling 1,990 individuals based on data from the Bali Provincial Transportation Agency. The sample size was determined using Slovin's formula with a 5% margin of error, resulting in 333 respondents. The sampling technique employed was non-probability sampling, meaning not all members of the population had an equal chance of being selected as part of the sample Sugiyono (2019:136). The type of non-probability sampling used in this study is purposive sampling, where the sample is selected based on specific criteria, namely electric motorcycle users in Bali Province. The use of purposive sampling aligns with the research objective, which is to examine the purchasing behavior of electric motorcycles within the context of the increasing sales phenomenon of electric vehicles in Bali.

Data analysis was conducted using Structural Equation Modeling-Partial Least Squares (SEM-PLS), a multivariate analysis technique that allows researchers to test relationships between latent variables and their indicators. SEM-PLS was chosen for its ability to handle complex models and assess mediation effects, such as the role of consumer expectancy in mediating the relationship between herding behavior, sustainability attitude, motivation, and facilitating conditions with purchase behavior.

This analysis helps identify significant influences among the variables and provides deeper insights into the factors affecting electric motorcycle purchase behavior in Bali.

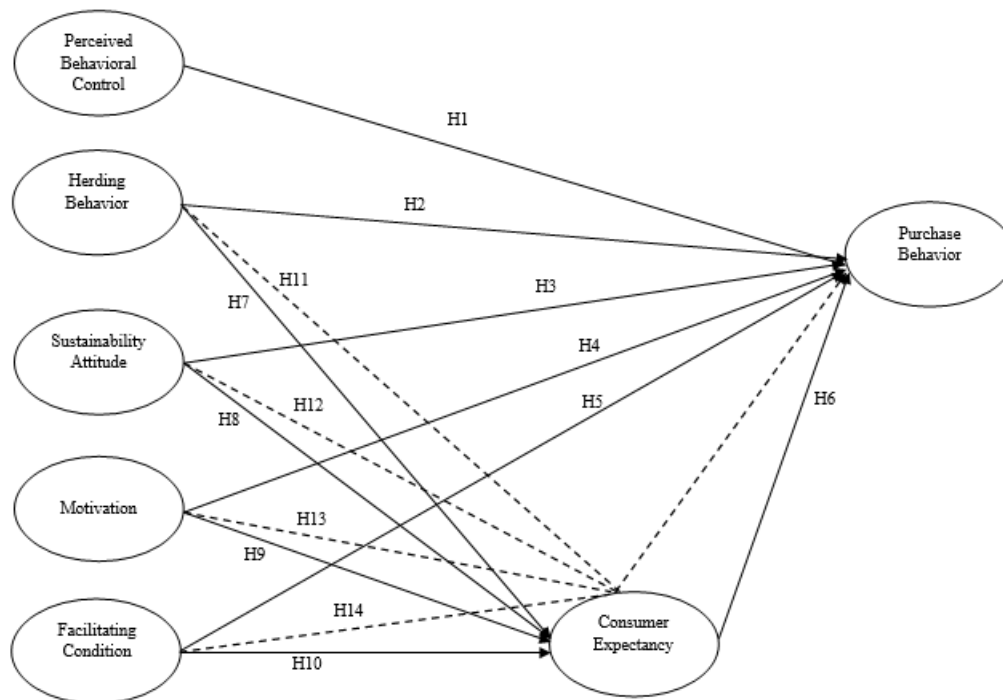


Figure 2. Research Model

D. RESULT AND DISCUSSION

Based on the questionnaire distribution, the respondent characteristics in this study were predominantly from the 31–40 age group, accounting for 60.7% of the total 333 respondents, while the under-20 age group had the smallest percentage at 5.7%. In terms of gender, male respondents dominated with 63.4%, compared to females at 36.6%. Regarding education levels, the majority of respondents held a Bachelor's degree (46.8%), followed by Diploma holders (28.2%), high school/vocational school graduates (22.2%), and the smallest group being Master's degree holders (2.7%). This indicates that most respondents were males aged 31–40 years with a Bachelor's degree.

In the outer model measurement, tests for convergent validity, discriminant validity, and unidimensionality were conducted. Convergent validity includes outer loading and Average Variance Extracted (AVE). Discriminant validity is assessed by comparing cross-loading and outer loading values, as well as ensuring the square root of the AVE exceeds the correlations between variables. Additionally, Cronbach's Alpha, rho-A, and composite reliability tests were performed to evaluate reliability. The discriminant and convergent validity assessments in this research aim to demonstrate the statistical validity of the instrument.

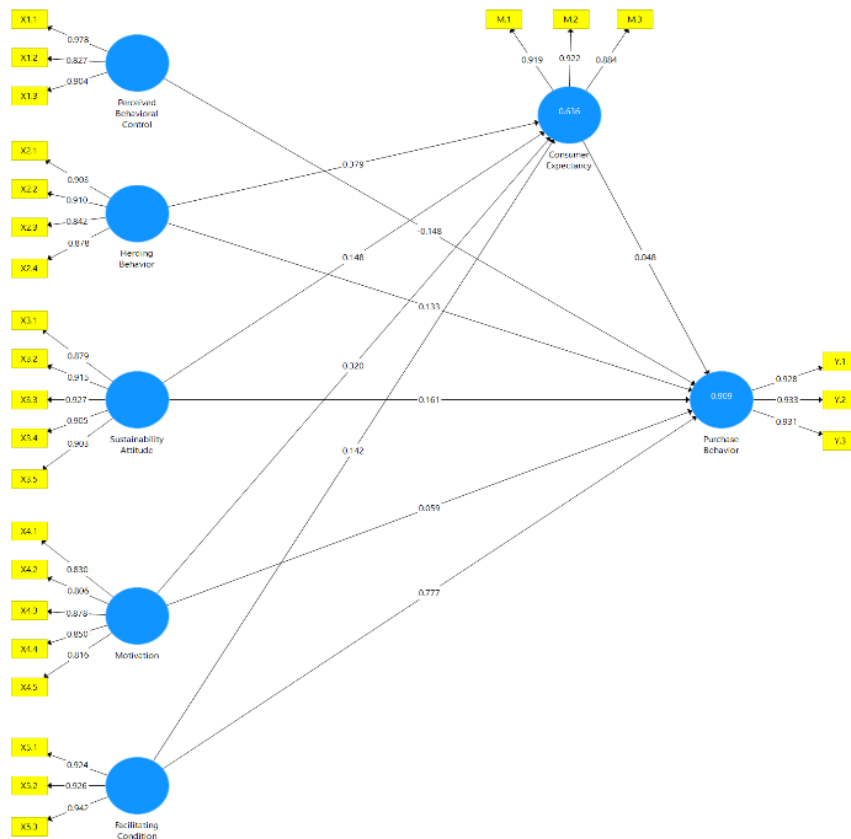


Figure 3. Outer Model

Source: Primary data processed, 2024

Table 1. Validity Convergent AVE Test

	Average Variance Extracted (AVE)
Consumer Expectancy	0.825
Facilitating Condition	0.866
Herding Behavior	0.781
Motivation	0.700
Perceived Behavioral Control	0.819
Purchase Behavior	0.866
Sustainability Attitude	0.821

Source: Primary data processed, 2024

Based on the table above, it can be observed that all Average Variance Extracted (AVE) values are greater than 0.5. Therefore, it can be concluded that the data in this study is valid. In the inner model measurement, direct effects and indirect effects were tested, along with determining the magnitude of the influence through the coefficient of determination (R-Square), and analyzing F-Square and Q-Square values (Sarwono, 2018:237). The structural model, or inner model, is evaluated by examining the percentage of variance explained, as indicated by the R-Square (R² of the exogenous variables) for dependent latent constructs, using the Stone-Geisser Q-Square test and the structural path coefficients. Potential mediation effects are confirmed after further mediation analysis using the bootstrap method (Adelekan et al., 2018).

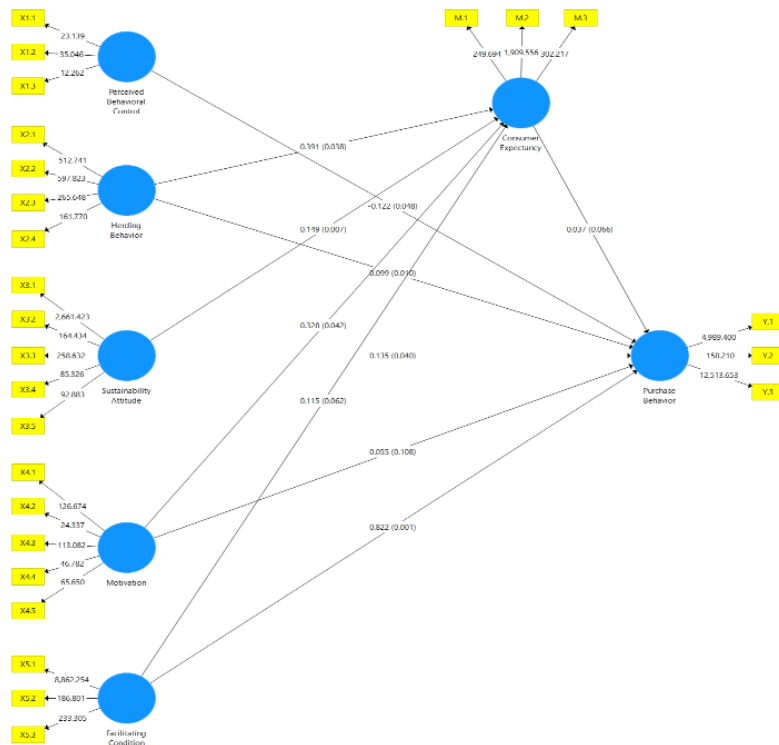


Figure 4. Inner Model

Source: Primary data processed, 2024

Hypothesis testing is the process of evaluating the null hypothesis, determining whether it should be accepted or rejected.

Table 2. Direct Effect Test

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Consumer Expectancy -> Purchase Behavior	0.037	0.028	0.015	2.462	0.066
Facilitating Condition -> Consumer Expectancy	0.115	0.133	0.045	2.576	0.062
Facilitating Condition -> Purchase Behavior	0.822	0.878	0.034	24.259	0.001
Herding Behavior -> Consumer Expectancy	0.391	0.352	0.115	3.403	0.038
Herding Behavior -> Purchase Behavior	0.099	0.057	0.015	6.829	0.010
Motivation -> Consumer Expectancy	0.328	0.381	0.101	3.248	0.042
Motivation -> Purchase Behavior	0.055	0.037	0.030	1.791	0.108
Perceived Behavioral Control -> Purchase Behavior	-0.122	-0.048	0.041	3.006	0.048
Sustainability Attitude -> Consumer Expectancy	0.149	0.157	0.018	8.388	0.007
Sustainability Attitude -> Purchase Behavior	0.135	0.050	0.041	3.311	0.040

Source: Primary data processed, 2024

Table 3. Indirect Effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Facilitating Condition -> Consumer Expectancy -> Purchase Behavior	0.004	0.003	0.001	5.524	0.016
Herding Behavior -> Consumer Expectancy -> Purchase Behavior	0.015	0.012	0.009	1.708	0.115
Motivation -> Consumer Expectancy -> Purchase Behavior	0.012	0.009	0.003	4.138	0.027
Sustainability Attitude -> Consumer Expectancy -> Purchase Behavior	0.006	0.004	0.002	2.949	0.049

Source: Primary data processed, 2024

Perceived Behavioral Control on Purchase Behavior

Perceived Behavioral Control (PBC) reflects the extent to which individuals believe they have control or the ability to perform a certain behavior, in this case, making a purchase. PBC encompasses factors such as skills, resources, physical barriers, and social support. The better the control an individual has over making decisions, the more consideration they will give to the decision-making process, which can lead to a decrease in the likelihood of making an impulsive purchase.

Good control before making a decision has a significant impact on the choices made, which aligns with the results from the questionnaire on perceived behavioral control. The majority of respondents reported having good control over their purchasing decisions. This control allows respondents to carefully consider their options, weighing functional, economic, and social aspects, which reduces impulsive decisions and may lead to a decreased likelihood of making a purchase.

The results of this study are not in line with the findings of Salisu (2020) which indicated that higher perceived behavioral control leads to higher purchase behavior. Similarly, Shakeel, (2022) found that perceived behavioral control has a positive influence on purchase behavior.

Herding Behavior on Purchase Behavior

Herding behavior, or crowd behavior, is generally not directly included in classic marketing management theories. However, we can observe the influence of herding behavior on purchase behavior from the perspective of consumer behavior and market dynamics. Herding behavior reflects the tendency of individuals to follow the actions of the majority, regardless of personal information or evaluation. In the context of purchase behavior, consumer psychology can be influenced by what is perceived as popular or trending in the market. Herding behavior often results in a herd effect, where the more people purchase a product or service, the more likely others are to follow the same trend. This can influence consumers' purchasing decisions, as they may feel "safe" or "popular" by following the majority.

The majority's choice, whether it be a trend or support, can significantly impact decision-making. This aligns with the respondents' answers regarding herding behavior, which indicated that most respondents receive support from their families when making decisions. This shows that social influence, both material and moral support, plays a significant role in shaping decision-making.

The results of this study are in line with the findings of Golder & Kayser, (2019); Kizys et al., (2021); Madaan & Singh (2019) which show that herding behavior is a factor that positively influences an individual's purchase behavior.

Sustainability Attitude on Purchase Behavior

The influence of Sustainability Attitude on Purchase Behavior can be observed through a marketing management approach that considers psychological factors and consumer values. Sustainability attitude includes an individual's views and values regarding sustainability issues, including awareness of environmental and social impacts. A positive attitude toward sustainability can motivate purchasing behavior that supports products or services perceived as more environmentally friendly or sustainable. Marketing strategies can leverage sustainability attitudes by highlighting the sustainable aspects of products or brands.

Awareness of the long-term effects of a decision can influence decision-making. This is in line with respondents' answers regarding sustainability attitude, which indicate that most respondents are very aware of the environmental conditions that consume excessive energy, as well as their willingness to actively contribute by using renewable energy to help save the environment. This shows that a good understanding of environmental conditions and high awareness of the importance of efforts to protect the environment significantly influence decisions that offer solutions to these environmental issues.

The results of this study are consistent with the findings of Sugihara & Hardman (2022) which show that sustainability is an important factor that can enhance consumer purchasing behavior.

Motivation on Purchase Behavior

A clear and well-defined purchase goal can motivate consumers to achieve it. For example, the goal of purchasing might include acquiring a specific product or service, meeting a particular need, or achieving a certain level of satisfaction. Purchase goals can influence purchase intentions, which in turn can shape purchase behavior. If consumers have strong motivation to achieve a specific goal, they may be more likely to proceed with the purchase.

The responses from the participants regarding the motivation variable indicated that some respondents were uncertain about their decision to use electric motorcycles as a means of transportation to reduce pollution. This suggests that respondents lacked confidence in their motivation for using electric motorcycles, possibly due to their underlying principles related to sustainable living, which did not influence their purchasing decisions.

This finding contrasts with the opinions presented by Sugihara & Hardman (2022) and research by Buhmann & Criado (2023) who argue that motivation can have a positive influence on purchase behavior. In their studies, motivation was shown to encourage consumers to make purchases, suggesting that when individuals are motivated by specific goals or desires, it can drive their decision-making and ultimately increase the likelihood of making a purchase. However, the results of this study indicate a different outcome, where motivation did not significantly influence purchase behavior.

Facilitating Condition on Purchase Behavior

The availability of supporting infrastructure for using a product or service can significantly influence purchasing decisions. For instance, access to fast internet, adequate hardware support, or efficient logistical infrastructure can make consumers more inclined to purchase. When consumers feel they have enough resources—such as time, money, or knowledge—to use a product or service, they are likely more motivated to make a purchase. On the other hand, a lack of resources or infrastructure can hinder purchasing behavior.

In this study, the influence of facilitating conditions on purchase behavior aligns with the responses from participants regarding the facilitating condition variable. Many respondents indicated that they have a safe place at home to store their electric motorcycles. The manageable size of electric motorcycles facilitates storage, requiring less space. This suggests that having the right infrastructure and conditions can strongly influence the decision to purchase, as it reduces barriers and makes the process easier for consumers.

The results of this study align with research conducted by Chairia et al., (2020) which shows that facilitating conditions positively influence purchase behavior. Similarly, Butt & Singh (2023) found that facilitating conditions also have a positive effect on purchase behavior. Both studies reinforce the idea that when the necessary infrastructure or conditions are in place to support the use of a product or service, consumers are more likely to proceed with their purchasing decisions.

Consumer Expectancy on Purchase Behavior

Consumer Expectancy, or consumer expectations, can significantly influence purchase behavior. In marketing management theory, the relationship between Consumer Expectancy and Purchase Behavior can be explained through several concepts and mechanisms. The theory of expectations suggests that individuals make decisions based on their expectations about the outcomes of a particular action. In this context, Consumer Expectancy can either motivate or hinder purchase behavior, depending on how well those expectations are met. Positive expectations about a product or service can lead to an increased intention to purchase, as they are often linked to perceptions of product quality. If those expectations are met or exceeded, customer satisfaction increases, and future expectations may be shaped accordingly. On the other hand, if expectations are unmet, dissatisfaction may occur.

The responses from the respondents regarding the variable of consumer expectancy indicate that some respondents felt their transportation expenses did not significantly decrease after using an electric motorcycle. This suggests that respondents' expectations were high, particularly regarding the economic benefits of using the electric motorcycle. However, people often have multiple expectations for a product, and if one expectation is not met but others are, it may not necessarily impact the purchasing decision.

The results of this study are not in line with the findings of research conducted by Chairia et al., (2020); Buhmann & Criado, (2023) which show that consumer expectancy has a positive effect on purchase behavior.

Herding Behavior on Consumer Expectancy

Herding behavior, or crowd behavior, is a phenomenon where individuals tend to follow the actions of the majority without deeply considering personal information or reasoning. In the context of marketing management, the influence of herding behavior on consumer expectancy can be explained through several concepts. Although herding behavior is not specifically related to marketing management theory, its influence can be considered within the framework of consumer decision-making. Herding behavior creates a strong social effect. Consumers tend to form their expectations based on what is perceived as the norm or trend in society. If many people choose or expect a certain product, it can influence the expectations of other consumers. Herding behavior can provide a concept of psychological safety. If many people choose a certain product or brand, other consumers may feel more secure and comfortable following the trend, forming the expectation that the decision is the right choice.

The trends in a particular environment give a strong expectation for someone to achieve the same condition as the majority that will be followed. This aligns with the responses from participants regarding the herding behavior variable, which stated that respondents were more interested in buying electric motorcycles when they saw someone using one. The psychological influence exerted by the majority group is indeed significant, where when a group of people chooses to use new technology, it signals that the needs and desires of that group are met. This becomes the expectation for others to use the same product.

Research that conducted by Pranyoto et al., (2020); Hsieh et al., (2020) it shows that herding behavior has a positive effect on consumer expectancy.

Sustainability Attitude on Consumer Expectancy

Attitudes toward sustainability can shape consumers' attitudes toward specific products or brands. If consumers have a positive attitude toward the sustainability practices implemented by a brand, it can create positive expectations related to the products or services offered by that brand. Consumers with a positive attitude toward sustainability may be more inclined to incorporate sustainability considerations into

their purchasing decisions. Consumer expectancy can include expectations that the product or brand they choose meets certain sustainability standards.

An individual's awareness of the small decisions they make can reduce environmental issues, as reflected in the responses to the sustainability attitude variable, where respondents mentioned that they must maximize the use of renewable energy for daily life. Awareness of the importance of protecting the environment and using available energy more efficiently represents a crucial sustainability mindset. Individuals with this awareness have high expectations regarding the use of electric motorcycles, as it contributes to environmental preservation.

The results of this study are in line with the findings of research conducted by Mpoi et al., (2023); Sugihara & Hardman (2022) it shows that sustainability attitude has a positive influence on consumer expectancy.

Motivation on Consumer Expectancy

Consumer motivation can influence purchase intention. If consumers have specific goals or strong motivation to achieve something through a purchase, this can shape their consumer expectancy related to the product or service chosen as a means to achieve those goals. Motivation or goals can affect how consumers evaluate the value and benefits of a product or service. Consumer expectancy can include expectations about how well the product or service can meet their needs or help them achieve their goals. Motivation can influence how consumers evaluate products or services. Consumer expectancy will be affected by the belief that the product aligns with their objectives or motivations.

The motivation respondents have, such as confidence in the functions of electric motorcycles, provides an overview of expectations regarding the electric motorcycles. This aligns with the answers from respondents regarding the motivation variable, which mentioned that most respondents are confident and firm in their decision to use electric motorcycles. The confidence they have in using electric motorcycles creates high expectations that they can fulfill their needs or help them achieve their goals more efficiently. This shows that strong motivation has a significant impact on consumer expectancy.

The results of this study are in line with the findings of research conducted by Buhmann & Criado (2023); Sugihara & Hardman (2022) This shows that motivation has a positive effect on consumer expectancy.

Facilitating Condition on Consumer Expectancy

Facilitating conditions in the context of the Technology Acceptance Model (TAM) are generally more related to the readiness and ease of use of a technology. Meanwhile, consumer expectancy can be influenced by several factors, including facilitating conditions. Facilitating conditions that support the ease of using a technology can enhance consumer expectations regarding a positive usage experience. If a product or service has an intuitive interface, clear instructions, and effective

customer support, consumers tend to expect that they can easily understand and use the technology.

Supportive facilities give high expectations to an individual's expectations of a technology. This aligns with the responses from participants regarding the facilitating condition variable, which mentioned the lack of technical support for operating electric motorcycles, such as repair workshops, spare parts, etc. Electric motorcycles, still relatively new, have few workshops for repairs, as respondents understand that these motorcycles require regular maintenance just like conventional motorcycles. However, over time, as electric motorcycles become more widely recognized, supporting facilities, such as repair shops, will likely increase. This indicates that current supporting facilities do not have a significant impact on consumer expectations.

This research result does not align with the findings of a study by Chairia et al., (2020) which showed that facilitating conditions positively influence consumer expectancy. Other studies, such as one conducted by Yoga & Triami (2021) also demonstrated that facilitating conditions have a positive impact on consumer expectancy.

Herding Behavior on Purchase Behavior with Consumer Expectancy as Mediation

Herding behavior reflects a phenomenon where individuals tend to follow the actions of the majority without deeply considering personal information or judgments. Consumer Expectancy plays a mediating role, acting as a variable between the independent variable (Herding Behavior) and the dependent variable (Purchase Behavior). Consumer Expectancy reflects the expectations consumers have regarding the outcomes or benefits they hope to gain from a purchase. Herding behavior can influence Consumer Expectancy through social effects and the influence of the majority's actions. Consumers engaged in herding behavior may form expectations related to the purchase outcome based on what is considered the norm or trend in society.

Impulsive decisions made due to following the majority's actions are not significantly influenced by expectations about the product being used. This aligns with respondents' answers regarding the herding behavior variable, which indicated that they were confident in purchasing an electric motorcycle after seeing others they knew also buy one. This suggests that decisions were made not based on thorough consideration but rather spontaneous thinking, as they simply observed others using electric motorcycles, without seeking information to convince themselves of the decision. Additionally, respondents' answers regarding the consumer expectancy variable indicated that they did not perceive a significant reduction in their transportation expenses after switching to an electric motorcycle. The responses show that individuals who do not consider small factors are less likely to be influenced by those factors in their decision to follow the majority's choice.

The results of this study do not align with the findings of the research conducted by Zhao et al., (2019) it shows that consumer expectations can bridge the increase in their purchases.

Sustainability Attitude on Purchase Behavior with Consumer Expectancy as Mediation

Attitude towards sustainability reflects an individual's views, values, and stance on sustainability and environmental issues. Consumer Expectancy acts as a mediator, lying between the independent variable (Sustainability Attitude) and the dependent variable (Purchase Behavior). Consumer Expectancy represents the expectations consumers have regarding the outcomes or benefits they anticipate from purchasing sustainable products. Sustainability attitude can influence Consumer Expectancy through the values and views consumers hold toward products or brands that emphasize sustainability. The alignment between sustainability attitudes and the values promoted by the product or brand can shape consumer expectations.

An individual's understanding of environmental conditions and how efforts can be made to maintain sustainability will result in expectations and decisions that are hoped to provide a good solution to environmental problems. This aligns with respondents' answers regarding sustainability attitude, where they mentioned that they understand renewable energy types and what they can do to support its use. This is because electric motorcycles, which use fuel from renewable energy, are safer for the environment. Furthermore, respondents' answers on the consumer expectancy variable mentioned that they feel their daily activities have become easier and more practical with the use of electric motorcycles. Based on the respondents' answers, it shows that a good understanding of environmental conditions, along with efforts to address them, supported by the fulfillment of desired expectations, has a significant impact on the decisions that will be made.

The results of this study are align with the findings of the research conducted by Zhao et al., (2019) This shows that consumer expectations can bridge the increase in their purchases.

Motivation on Purchase Behavior with Consumer Expectancy as Mediation

Motivation reflects the specific goals or drives that push individuals to take action, in this case, making a purchase. Consumer Expectancy serves as a mediator, acting as the variable between the independent variable (Motivation) and the dependent variable (Purchase Behavior). Consumer Expectancy represents the consumer's expectations regarding the results or benefits they anticipate from their purchase. Motivation can influence Consumer Expectancy by shaping the consumer's expectations about the outcomes that can be achieved by meeting their goals or objectives. The alignment between the consumer's objectives and the product or service purchased can shape their expectations. If the consumer sees a positive correlation between the product they are about to buy and their intended goals, positive expectations are likely to form.

The confidence an individual has creates high expectations for achieving their desired outcomes. The greater the confidence and expectation held by an individual, the more likely it is to influence their decision-making. This aligns with the responses from the motivation variable, where many respondents expressed confidence in their decision to use electric motorcycles. This confidence stems from their understanding that electric motorcycles are a viable solution to the ongoing energy crisis, as they run on renewable energy sources. Additionally, respondents indicated in the consumer expectancy variable that they found their daily activities to be easier and more practical with electric motorcycles. Based on these responses, it is evident that the motivation, fueled by confidence in making a positive change, supported by the achievement of the expected outcomes of ease and practicality, greatly influences the purchasing decision.

This study's findings are consistent with the research conducted by Zhao et al., (2019) which shows that consumer expectations can bridge the increase in their purchases.

Facilitating Condition on Purchase Behavior with Consumer Expectancy as Mediation

Facilitating conditions refer to the conditions or factors that support or hinder the use of a technology or product. In this context, FC can include ease of use, technical support, supporting infrastructure, and other factors that make consumers feel ready to make a purchase. Consumer expectancy represents the expectations or hopes consumers have regarding their experience with a product or service. As a mediating variable, CE explains how facilitating conditions influence consumer expectations, which in turn affect purchasing behavior.

The fulfillment of supporting factors for the use of a product provides great hope for being able to use the product effectively. This aligns with the responses from the variable facilitating condition, which mentioned that most respondents have a secure storage location for their electric motorcycles at home. This is because electric motorcycles are not too large, so they do not require much space for storage. Additionally, the response to the consumer expectancy variable indicated that respondents felt their daily activities became easier and more practical with the use of electric motorcycles. Based on the responses, it shows that the supporting factor of having a secure storage location, coupled with the achievement of the respondents' expectations of ease of use, significantly influences their purchase decisions.

This research aligns with the findings of Zhao et al., (2019) which suggest that consumer expectations can bridge the gap leading to an increase in their purchases.

E. CONCLUSION

The conclusion of this study indicates that perceived behavioral control has a negative effect on electric motorcycle purchase behavior, meaning that the more control an individual has over their purchasing decision, the more considerations arise, thus reducing purchase intention. Herding behavior, sustainability attitude, and

facilitating conditions have a positive effect on purchase behavior, with social support, a positive attitude toward sustainability, and conditions that facilitate purchasing playing a crucial role in influencing decisions. However, motivation does not have a significant effect on purchase behavior. Consumer expectancy has been proven to mediate the effects of sustainability attitude and motivation on purchase behavior, but it does not mediate the influence of herding behavior.

Suggestions for future research include expanding the scope of the population by involving areas outside Bali, in order to gain a more comprehensive understanding of electric motorcycle purchase behavior in various geographical and cultural contexts. Additionally, other variables that may influence purchase behavior, such as energy prices, government policies, or infrastructure supporting electric vehicles, can be further explored to provide a more holistic view of the factors affecting electric vehicle adoption.

REFERENCES

1. Aasness, M. A., & Odeck, J. (2023). Road users' attitudes towards electric vehicle incentives: Empirical evidence from Oslo in 2014–2020. *Research in Transportation Economics*, 97(February), 101262. <https://doi.org/10.1016/j.retrec.2023.101262>
2. Adedeji, B. P. (2023). Electric vehicles survey and a multifunctional artificial neural network for predicting energy consumption in all-electric vehicles. *Results in Engineering*, 19(June), 101283. <https://doi.org/10.1016/j.rineng.2023.101283>
3. Adelekan, S. A., Williamson, M., Atiku, S. O., & Ganiyu, I. O. (2018). Mediating Influence of Self-Efficacy in the Development of Entrepreneurial Intentions among Undergraduates. *Journal of Accounting and Management*, 8(3), 14–26.
4. Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology*, 32(4), 665–683.
5. Annur, C. M. (2023). *Riset Deloitte dan Foundry: Penggunaan Motor Listrik di Indonesia Naik 13 Kali Lipat dalam Dua Tahun*. Retrieved from: <https://databoks.katadata.co.id/datapublish/2023/09/15/riset-deloitte-dan-foundry-penggunaan-motor-listrik-di-indonesia-naik-13-kali-lipat-dalam-dua-tahun>
6. Azizah, F. D., Nur, A. N., & Putra, A. H. P. K. (2022). Impulsive Buying Behavior: Implementation of IT on Technology Acceptance Model on E-Commerce Purchase Decisions. *Golden Ratio of Marketing and Applied Psychology of Business*, 2(1), 58–72. <https://doi.org/10.52970/grmapb.v2i1.173>
7. Buhmann, K. M., & Criado, J. R. (2023). Consumers' preferences for electric vehicles: The role of status and reputation. *Transportation Research Part D: Transport and Environment*, 114(November 2022), 103530. <https://doi.org/10.1016/j.trd.2022.103530>
8. Butt, M. H., & Singh, J. G. (2023). Factors affecting electric vehicle acceptance, energy demand and CO₂ emissions in Pakistan. *Green Energy and Intelligent Transportation*, 2(3), 100081. <https://doi.org/10.1016/j.geits.2023.100081>

9. Chairia, C., Sukmadilaga, C., & Yuliafitri, I. (2020). Peran Ekspektasi Kinerja, Ekspektasi Usaha, Pengaruh Sosial, dan Kondisi yang Mendukung terhadap Perilaku Pengguna Itqan Mobile yang Dimediasi oleh Niat Perilaku Menggunakannya. *Jurnal Maksipreneur: Manajemen, Koperasi, dan Entrepreneurship*, 10(1), 48. <https://doi.org/10.30588/jmp.v10i1.655>
10. Cohen, L. H., Cimboric, K., Armeli, S. R., & Hettler, T. R. (2010). Quantitative Assessment of Thriving. *Journal of Social Issues*, 54(2), 323–335. <https://doi.org/10.1111/j.1540-4560.1998.tb01221.x>
11. Cruz-Jesus, F., Figueira-Alves, H., Tam, C., Pinto, D. C., Oliveira, T., & Venkatesh, V. (2023). Pragmatic and idealistic reasons: What drives electric vehicle drivers' satisfaction and continuance intention? *Transportation Research Part A: Policy and Practice*, 170(March 2020), 103626. <https://doi.org/10.1016/j.tra.2023.103626>
12. Deka, C., Dutta, M. K., Yazdanpanah, M., & Komendantova, N. (2023). Can gain motivation induce Indians to adopt electric vehicles? Application of an extended theory of Planned Behavior to map EV adoption intention. *Energy Policy*, 182(November 2022), 113724. <https://doi.org/10.1016/j.enpol.2023.113724>
13. Filho, J. M., Matos, S., Trajano, S., & Lessa, B. (2020). Determinants of social entrepreneurial intentions in a developing country context. *Journal of Business Venturing Insights*, 14(April). <https://doi.org/10.1016/j.jbvi.2020.e00207>
14. Gao, X., Simeone, A., & Zhang, J. (2023). Smart decision-making for design adaptation of electric vehicles using big sales data. *Procedia CIRP*, 119, 710–715. <https://doi.org/10.1016/j.procir.2023.02.161>
15. Golder, U., & Kayser, M. S. (2019). Influence of Behavioral Factors, Market Factors and Stock Fundamentals on Individual's Investment Decision: A Study on Dhaka Stock Exchange. *Jagannath University Journal of Business Studies*, 7(1), 79–96.
16. Goulias, K. G., & Shi, H. (2023). Commercial Fleet Vehicle Additions and Replacements and the Potential Market Penetration for Electric Vehicles. *Transportation Research Procedia*, 70, 69–76. <https://doi.org/10.1016/j.trpro.2023.11.003>
17. Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
18. Hidayat, R., & Cowie, J. (2023). A framework to explore policy to support the adoption of electric vehicles in developing nations: A case study of Indonesia. *Transportation Research Procedia*, 70, 364–371. <https://doi.org/10.1016/j.trpro.2023.11.041>
19. Hsieh, S. F., Chan, C. Y., & Wang, M. C. (2020). Retail investor attention and herding behavior. *Journal of Empirical Finance*, 59(7), 109–132. <https://doi.org/10.1016/j.jempfin.2020.09.005>
20. Jena, R. K. (2020). Measuring the impact of business management Student's attitude towards entrepreneurship education on entrepreneurial intention: A case

- study. *Computers in Human Behavior*, 107(January), 106275. <https://doi.org/10.1016/j.chb.2020.106275>
21. Jordan, S. (2023). Carrot or Stick? How Policy Type Influences Consumer Intention to Purchase Electric Vehicles. *Transportation Research Procedia*, 70(2022), 13–19. <https://doi.org/10.1016/j.trpro.2023.10.003>
 22. Kholiza, I., Saskia, & Fahlevi, A. (2022). Pengaruh Attitude, Subjective Norm, Perceived Behavioral Control Melalui Country of Origin Sebagai Variabel Moderating Terhadap Purchase Intention Pada Produk Nature Republicaloe Vera (Studi Pada Mahasiswa Universitas Harapan Medan). *Jurnal Akuntansi, Manajemen dan Ilmu Ekonomi*, 02(01), 227–235.
 23. Kizys, R., Tzouvanas, P., & Donadelli, M. (2021). From COVID-19 herd immunity to investor herding in international stock markets: The role of government and regulatory restrictions. *International Review of Financial Analysis*, 74(January), 101663. <https://doi.org/10.1016/j.irfa.2021.101663>
 24. Kotler, P., & Keller, K. L. (2018). *Manajemen Pemasaran*. Indeks.
 25. Kucuksari, S., Pamucar, D., Deveci, M., Erdogan, N., & Delen, D. (2023). A new rough ordinal priority-based decision support system for purchasing electric vehicles. *Information Sciences*, 647(August), 119443. <https://doi.org/10.1016/j.ins.2023.119443>
 26. Kyparissis, I., Kontaxi, A., Deliali, A., & Yannis, G. (2022). Electric or not? Factors affecting Greek Driver's Preference when Purchasing a New Vehicle. *Transportation Research Procedia*, 00, 1700–1706. <https://doi.org/10.1016/j.trpro.2023.11.643>
 27. Liu, Z. (2023). Impact of vehicle purchase tax exemption on electric vehicle sales: Evidence from China's automotive industry. *Energy Strategy Reviews*, 49(April), 101148. <https://doi.org/10.1016/j.esr.2023.101148>
 28. Madaan, G., & Singh, S. (2019). An analysis of behavioral biases in investment decision-making. *International Journal of Financial Research*, 10(4), 55–67. <https://doi.org/10.5430/ijfr.v10n4p55>
 29. Mpoi, G., Milioti, C., & Mitropoulos, L. (2023). Factors and incentives that affect electric vehicle adoption in Greece. *International Journal of Transportation Science and Technology*, 12(4), 1064–1079. <https://doi.org/10.1016/j.ijst.2023.01.002>
 30. Neneh, B. N. (2020). Entrepreneurial passion and entrepreneurial intention: the role of social support and entrepreneurial self-efficacy. *Studies in Higher Education*, 0(0), 1–17. <https://doi.org/10.1080/03075079.2020.1770716>
 31. Normanita, Koerniawan, H., & Yogantari, M. V. (2021). Pengaruh E-Service Quality dan Purchase Behavior terhadap Kepuasan Konsumen di Mediasi Loyalitas Konsumen Pengguna Game Online Mobile Legend Masa Normal Baru Pandemi Covid-19. *Jurnal Teknologi Dan Komputer*, 7, 445–454.
 32. Pamidimukkala, A., Kermanshachi, S., Rosenberger, J. M., & Hladik, G. (2023). Evaluation of barriers to electric vehicle adoption: A study of technological, environmental, financial, and infrastructure factors. *Transportation Research*

- Interdisciplinary Perspectives*, 22(November), 100962.
<https://doi.org/10.1016/j.trip.2023.100962>
33. Pranyoto, E., Susanti, & Septiyani. (2020). Herding Behavior, Experienced Regret Dan Keputusan Investasi Pada Bitcoin. *Jurnal Bisnis Darmajaya*, 06(1), 29–43. <https://jurnal.darmajaya.ac.id/index.php/JurnalBisnis/article/download/1928/1047>
34. Ramadan, M. F. (2023). *Penjualan Motor Listrik di Indonesia Belum Signifikan*. Retrieved from: <https://otomotif.okezone.com/read/2023/10/06/53/2895942/penjualan-motor-listrik-di-indonesia-belum-signifikan>
35. Salisu, J. B. (2020). Entrepreneurial training effectiveness, government entrepreneurial supports and venturing of TVET students into IT related entrepreneurship – An indirect-path effects analysis. *Heliyon*, 6(11), e05504. <https://doi.org/10.1016/j.heliyon.2020.e05504>
36. Sarwono, J. (2018). *Statistik Untuk Riset Skripsi*. Yogyakarta: Andi Offset.
37. Shakeel, U. (2022). Electric vehicle development in Pakistan: Predicting consumer purchase intention. *Cleaner and Responsible Consumption*, 5(March), 100065. <https://doi.org/10.1016/j.clrc.2022.100065>
38. Shanmugavel, N., & Micheal, M. (2022). Exploring the marketing related stimuli and personal innovativeness on the purchase intention of electric vehicles through Technology Acceptance Model. *Cleaner Logistics and Supply Chain*, 3(November 2021), 100029. <https://doi.org/10.1016/j.clscn.2022.100029>
39. Sugihara, C., & Hardman, S. (2022). Electrifying California fleets: Investigating light-duty vehicle purchase decisions. *Transportation Research Interdisciplinary Perspectives*, 13(January), 100532. <https://doi.org/10.1016/j.trip.2021.100532>
40. Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Bandung: Alfabeta.
41. Suliyanto. (2018). *Metode Penelitian Bisnis*. Yogyakarta: Andi Offset.
42. Utama, I. G. B. (2018). *Statistik Penelitian Bisnis & Pariwisata*. Yogyakarta: Andi.
43. Utomo, P., Kurniasari, F., & Purnamaningsih, P. (2021). The Effects of Performance Expectancy, Effort Expectancy, Facilitating Condition, and Habit on Behavior Intention in Using Mobile Healthcare Application. *International Journal of Community Service & Engagement*, 2(4), 183–197. <https://doi.org/10.47747/ijcse.v2i4.529>
44. Veza, I., Asy'ari, M. Z., Idris, M., Epin, V., Rizwanul Fattah, I. M., & Spraggon, M. (2023). Electric vehicle (EV) and driving towards sustainability: Comparison between EV, HEV, PHEV, and ICE vehicles to achieve net zero emissions by 2050 from EV. *Alexandria Engineering Journal*, 82(September), 459–467. <https://doi.org/10.1016/j.aej.2023.10.020>
45. Yin, Y. R., Li, Y., & Zhang, Y. (2022). Influencing factor analysis of household electric vehicle purchase intention of HaiNan Free Trade Port under the background of low-carbon lifestyle. *Energy Reports*, 8, 569–579. <https://doi.org/10.1016/j.egy.2022.05.125>

46. Yoga, I. M. S., & Triami, N. P. S. (2021). The Online Shopping Behavior of Indonesian Generation X. *Journal of Economics, Business, & Accountancy Ventura*, 23(3).
47. Yu, H., Dan, M., Ma, Q., & Jin, J. (2018). Neuroscience Letters They all do it, will you? Event-related potential evidence of herding behavior in online peer-to-peer lending. *Neuroscience Letters*, 681(February), 1–5.
48. Zhao, Z., Chen, M., & Zhang, W. (2019). Social community, personal involvement and psychological processes: A study of impulse buying in the online shopping carnival. *Journal of Electronic Commerce Research*, 20(4), 255–272.