

## **The Influence of Incentives, Quality, and Product Availability on Attitude toward Purchase Decision of Battery Electric Vehicle at the Greater Jakarta.**

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### **ABSTRACT**

Transport and mobility have significant contributions to the emissions in urban cities in Indonesia. The Indonesian government has supported the adoption of electric vehicles (EVs) as part of the commitment to zero emissions by 2060. According to The Association of Indonesia Automotive Industries (GAIKINDO), in 2022 the electric vehicle contributes 1.49% of the total domestic passenger car sales in Indonesia. This EV population was too small compared to what the government targeted for the adoption of EVs. This study aims to analyze the influence of government incentives, product quality, and product availability on consumer's attitudes toward purchase decisions of battery electric vehicles (BEV). A sample of 149 respondents, who have a driving license, living in the greater area of Jakarta were collected through a questionnaire-based primary data. Through a rigorous procedure of structural equation modelling (Smart-PLS), it is found that variables of government incentives and product quality have no significant effect on consumer purchase decision for BEVs. Product availability and attitude variable has positive and significant effect on consumer purchase decision for BEVs. Moreover, the product availability variable is imperative since it is found to be the most significant variable construct. Thus, as the managerial implication, BEV dealer and manufacturer could consider the availability of various choices of electric cars with the price and driving range capabilities. Future research is recommended to cover all types of EVs, collect wider respondents on different areas and also explore different variables that influence EV customer purchase decision.

**Keywords:** *Government Incentives; Product Quality; Product Availability; Consumer Attitude; Purchase Decision; Battery Electric Vehicle*

### **A.INTRODUCTION**

Governments around the world have been taking action to decarbonize transportation at different levels. As part of their actions to tackle climate change and local pollution, several countries around the world are pushing ambitious targets to electrify transport. The aim is both to reduce greenhouse gas (GHG) emissions and to improve air quality in urban center. (*Calvillo and Turner, 2021*).

In view of the increasingly severe problems of dependency on fossil fuels, global warming, and other environmental issues, developing electric vehicles (EVs) is of great significance for transforming the traditional transportation industry worldwide (Zhu et al., 2020a). Electric vehicles (EVs) have the potential to solve interrelated problems such as air pollution, depletion of non-renewable energy

sources, increasing oil prices, rising oil imports, and demands for “green” development (Bradley, 2021, Lin and Wu, 2018, McCollum et al., 2018, Singh and Sharma, 2014).

**Background**

The transportation sector is one of the most significant contributors to CO2 emissions in Indonesia, second to the emission by fuel type (Ritchie et al, 2023).

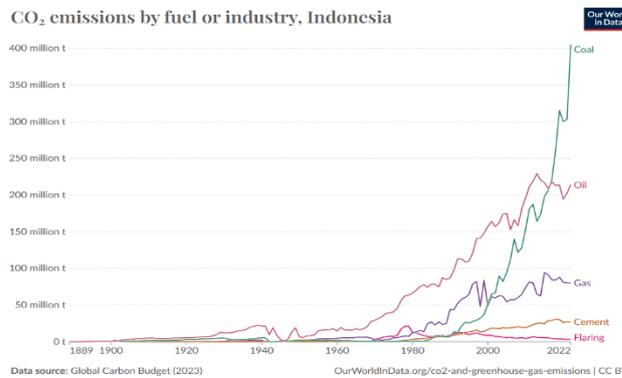


Figure 1. CO2 emission by fuel or Industri, Indonesia  
Source: World in Data

The Indonesian government has developed strategy to reduce the emissions generated from the transportation sector by continually issuing the policies and incentives to accelerate the adoption of Electric Vehicles (EV). Between 2026-2030, the government will develop solar photovoltaics and electric vehicles massively, setting a target of 2 million four-wheelers and 13 million two-wheelers (Ministry of energy and Mineral resources-www.esdm.go.id).

The association of Indonesian automotive industries (Gaikindo) in 2022 reported the sales of electric vehicles for 15.437 units. The EV sales show continued growth from 2019 to 2022; however, compared to the internal combustion engine, this number is still relatively small, only 1.49%

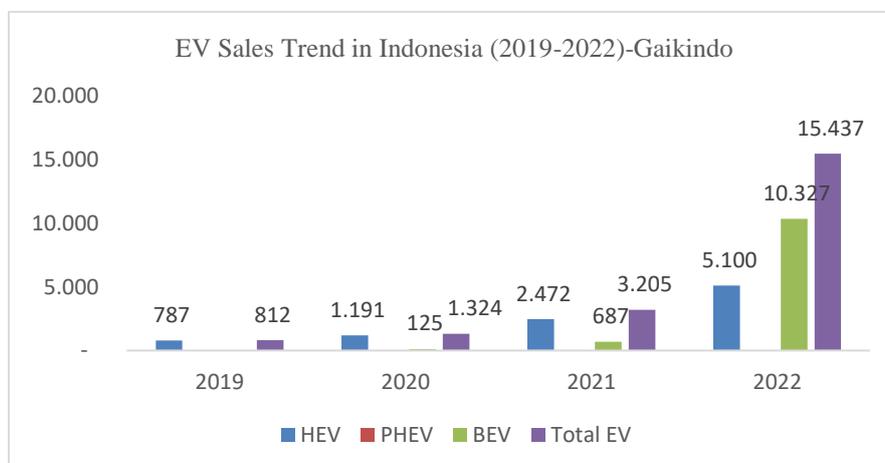


Figure 2. EV sales trend in Indonesia.  
Source: Gaikindo (2019-2022)

The purchase decision to buy an EV is a complex process that leads a consumer from identifying a need, generating options, and choosing a specific product and brand. This can be affected by complex variables considering economic, environmental, technical, lifestyle, and social factors. Previous research identified the deciding factor to purchase EVs considering car price, driving range, car performance, durability, environmental impact, maintenance cost and accessibility (Leiven et al. 2011, Junguera et al. 2016).

Xingrong et al. (2021) took a survey in Shanghai, China, to analyze consumers' acceptance of EVs, which focused on five external dimensions: vehicle performance, government policies, charging facilities, life attitude, and emphasizing peer influence in purchasing EVs. Sukhee Kim et al. (2022) analysis of factors influencing the purchase of EVs in Suwon City found that higher government subsidies and visiting charging services are the two most influential factors on EV purchase, followed by the EV driving environment and charging infrastructure.

Lashari et.al (2021) had study the influences of user attitude and perception on consumer's intention to purchase electric vehicle. The purchase of an EV offers numerous quality reasons. (Amineh & Kosach, 2016; Yıldız & Çavdar, 2020) conducted research for the assessment of consumers' satisfaction with automotive product quality and to evaluate vehicle product quality dimensions

In 2022, consumers in Indonesia experienced waiting for delivery after purchasing BEV, ranged from two to fifteen months because limitation of the stock. Product availability has the effect of changing the purchasing pattern (Colon & Mortimer, 2012). This constraint on the availability of supply has to be considered from the perspective of the consumer's decision to purchase BEV.

## **Literature Review**

### **Incentives**

According to Milton L Rock and Lance A. Berger (1991), the author of *The Compensation Handbook: A State-of-the-art Guide to Compensation Strategy and Design*, defines incentive as variable rewards granted according to variations in the achievement of specific results. There are types of incentives which classified under two major categories: Financial incentive, it is money that a person, company, or organization offers to encourage certain behaviors or actions. Non-financial incentives primarily focus on meeting and fulfilling these social, economic, and psychological requirements and cannot be calculated in monetary form.

### **Product Quality**

Edward Deming (1982) defined quality as good quality means a predictable degree of uniformity and dependability with a quality standard suited to the customer. Another definition that is widely accepted is Quality is the degree to which performance meets expectations. All definitions share the same overarching philosophy: consistency of conformance and performance while keeping the consumer in mind. Amineh and Kosach (2016) conducted research for assessment of consumers' satisfaction with the quality of automotive products. The automotive product's quality can be built based on several levels' quality criteria, such as functional, technological, economical, safety, aesthetic, and ecological.

### **Product Availability**

Conlon and Mortimer (2012) define product availability as a factor related to the ease of obtaining the products, as well as everything that customers need in order to consume the products. In short, Product availability refers to the availability of inventory required to satisfy consumer expectations at the moment of purchase. In the EV industry, the availability of passenger cars heavily depends on the technology, whereas EV batteries and manufacturing capability are crucial to producing the car to ensure its availability in the market. To ensure product availability, this necessitates relationships with suppliers and external partners, as well as great inventory visibility.

## Attitude

Robbins and Judge (2013, P. 70) defined attitudes as statements—either favorable or unfavorable—about objects, people, or events. Subsequently, attitude is a result of internal assessment and association process that directs the development of positive or negative intentions (Fishbein and Ajzen, 1975). Attitudes reflect how we feel about something. Attitudes have three components: cognition, affect, and behaviour. These components are closely related, and cognition and affect in particular are inseparable in many ways.

## Purchase Decision

Purchase decision is the thought process that leads a consumer from identifying a need, generating options, and choosing a specific product and brand. Schiffman et al. (2010) define a purchase decision as an act committed by a customer to make a decision in the form of product selection, the selection of the brand, the condition, and the amount of the purchase. According to Kotler and Keller (2016), from model of consumer behaviour, the purchasing decisions have indicators, namely: product choice, brand choice, dealer choice, number of purchases, purchase timing, and payment method.

## Research Framework and Hypothesis

Based on the description of the theory used in this study, the model framework of this study as shown in figure 3.

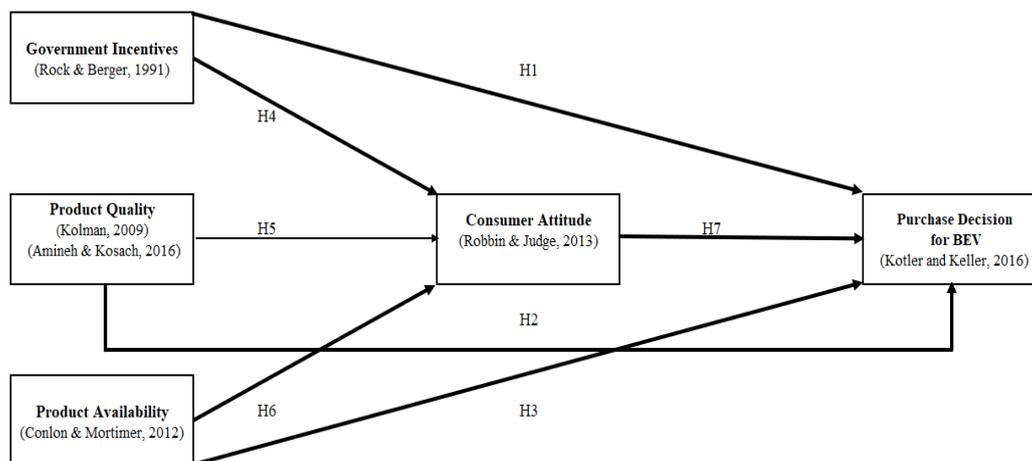


Figure 3. Research Framework

Source: Author, 2024

The following hypotheses are developed based on the research model to measure the relationship between those variables.

H1: Government incentives positively influence consumer purchase decisions for BEVs

H2: Product quality positively influence consumer purchase decisions for BEVs

H3: Product availability positively influence consumer purchase decisions for BEVs

H4: Government incentives positively influence consumer's attitude toward purchase of BEVs

H5: Product quality positively influences consumer's attitude toward purchase for BEVs

H6: Product availability positively influences consumer's attitude toward purchase of BEVs

H7: Attitude positively influence consumer purchase decisions for BEVs

## B. IMPLEMENTATION AND METHODS

In this research, primary data was acquired through a questionnaire filled out by respondents using an online form. The questionnaire survey is divided into two sections: the first section are collects demographic information, and the second assesses the defined variables according to the research model toward the purchase decision of BEV. The researchers proceeded to distribute questionnaires to a targeted sampling, in the greater area of Jakarta, (Jakarta, Bogor, Depok, Tangerang, Bekasi) obtaining 149 survey responses in total. The demographic profile of the respondents in this study is shown in table 1.

*Table 1. Demographic profile – respondent's data*

Demographic Variable	Category	Frequency	Percentage (%)
Gender	Male	114	77%
	Female	35	23%
Age	20 - 30s	19	13%
	31 - 40s	48	32%
	41 - 50s	60	40%
	51 - 60s	22	15%
Education	Senior High School	6	4%
	Associate's Degree	4	3%
	Bachelor Degree	93	62%
	Master Degree	44	30%
	Doctoral Degree	2	1%
Domicile	Bekasi	31	21%
	Bogor	24	16%
	Depok	15	10%
	DKI Jakarta	57	38%
	Tangerang	22	15%
Knowing EV Incentives	Yes	138	93%
	No	11	7%
Occupation	Student	1	1%
	Private sector employee	99	66%
	BUMN employee	16	11%
	Government employee	7	5%
	Self-employment	17	11%
	Others	9	6%
Income	< IDR Million 10	21	14%
	IDR Million 10 to < 30	70	47%
	IDR Million 30 to < 50	25	17%
	IDR Million 50 to < IDR 70	21	14%
	> IDR Million 70	12	8%
Number of Family	1 person	5	3%
	2 people	23	15%
	3 people	28	19%
	4 people	51	34%
	> 4 people	42	28%
Interest to Buy EV within 1-3 Years	Yes	81	54%
	Don't know	41	28%

	No	27	18%
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The variables in this study have the following operational definitions as shown on the table 2.

Table 2. Operational Definition

No	Variable	Indicator	Code	Measurement Item
1	Government Incentives (GI)	Financial Incentives (1)  Non-Financial Incentives (2)	GI.1	The Importance of obtaining price subsidize
	Variable rewards are granted according to variations in the achievement of specific results.  Milton L Rock and Lance A. Berger (1991)		GI.2	The Importance of having Zero tax (PPnBM 0%)
			GI.3	Ease of obtaining credit - DP 0% for EV
			GI.4	Electricity discount rate for EV charging
			GI.5	Free BBNKB and PKB
			GI.6	VAT reduction (10%)
			GI.7	Odd-Even Plate restriction-free
			GI.8	Availability of Charging station in the vicinity of housing, and SPKLU
			GI.9	Support to Environmental Sustainability - less carbon emission
2	Product Quality (PQ)	Esthetical & Technological (3)  Ecological & Economical (4)  Functional & Safety (5)	PQ.1	EV design, features, product's finish, colour, and overall visual appeal
	A quality product is a product that meets the expectations of the customers. Product Quality scale Auto Product Quality Criteria (Amined & Kosach, 2016)		PQ.2	Infotainment and connectivity
			PQ.3	Easy driving and comfort
			PQ.4	Environmentally friendly -low emission
			PQ.5	Lower maintenance and total ownership cost
			PQ.6	Smoothness and less noise
			PQ.7	The product will continuously function in accordance with its standards
			PQ.8	Performance driving range, acceleration, and handling
			PQ.9	Safety features embedded in the EV
3	Product Availability (PA)	EV Stock Availability (6)  EV Varian - model (7)  Time to deliver to customer (8)	PA.1	BEV Stock Availability
	Factor related to the ease of obtaining the products, as well as everything that customers need in order to consume the products  (Conlon & Mortimer, 2012)		PA.2	Information on BEV stock availability
			PA.3	Certain levels of BEV stock
			PA.4	Varian Model – BEV
			PA.5	Battery Capacity and driving range
			PA.6	BEV size and number of seaters
			PA.7	Time of BEV delivery (immediately, indent)
			PA.8	Dealer delivery commitment
			PA.9	Down payment to reserve the delivery
4	Attitude (At)	Affective aspect (9)  Cognitive aspect (10)  Behaviour aspect	At.1	Excitement about the prospect of owning an EV such (silent operation, instant torque, futuristic design)
	Evaluate statement-either favourable or unfavourable-about objects, people, or events, reflect how we feel about something.  Robbins & Judge (2013)		At.2	Feel about the environmental benefit of owning EV, or a way to show your commitment to sustainability
			At.3	Perceive owning EV as a status symbol
			At.4	Familiarity with the basic principle of electric vehicle technology
			At.5	Understand the difference between various EVs and their specification (drive range, charging time)
			At.6	Understand the main incentives or subsidize available for EV buyer
			At.7	Actively considering EVs as a replacement for current vehicle
			At.8	Having plan to purchase EV within 1 year

		(11)	At.9	Considering, government incentives, EV quality, and its availability as influencing factors in purchasing EV
5	Purchase Decision (PD)	Product Selection Consumers and Payment Method (12)	PD.1	Price Range and Type of EV
	Purchasing decision is an integration process used to combine knowledge to evaluate two or more alternatives and choose one of them.		PD.2	The variety Payment method for EV
			PD.3	Driving Range choices
		Brand choice Consumers (13)	PD.4	Brand name selection and reputation
			PD.5	Brand positioning
			PD.6	Product attribute toward brand
		Purchasing decisions indicators Kotler and Keller (2016)	Choice of Distributor (14)	PD.7
	PD.8			Distributor type of services
			PD.9	Distributor discount

This research utilizes PLS-SEM to analyse the structural relationships between latent (unobserved) variables by examining the relationships between observed variables (indicators) and latent variables. Model evaluation in PLS-SEM consists of the evaluation of the measurement model, the evaluation of the structural model, and the evaluation of the goodness and fit of the model.

## MEASUREMENTS

In this study, the variables measured were Government Incentives (GI), Product Quality (PQ), Product Availability (PA), Attitude (At), and Purchase Decision (PD). Each variable construct consists of 9 loading factors. Testing the validity of the items is indicated by the value of the standardized loading factor. Hair et al (2006) - standardized loading estimates should be 0.5 or higher, and ideally 0.7 or higher. BEV adoption in Indonesia is considered newly developed items, the factor loading for every item should exceed 0.5. There is no standardized loading factor value less than 0.5. It is concluded in this study all indicators to construct purchase decisions are valid. The results of the reliability test and convergent validity can be seen in table 3. below, show that all variables are reliable and valid, it can be understood that all the indicators used are appropriate for measuring each of these variables.

Table 3. Composite Reliability and Convergent Validity Result

	Loading Factor	Composite Reliability (CR)	Cronbach's alpha	AVE	Conclusion
GL.1	0.759	0.919	0.907	0.588	Valid and Reliable
GL.2	0.859				
GL.3	0.659				
GL.4	0.872				
GL.5	0.911				
GL.6	0.896				
GL.7	0.681				
GL.8	0.629				
GL.9	0.539				
PQ.1	0.710	0.857	0.852	0.560	Valid and Reliable
PQ.2	0.652				
PQ.3	0.754				
PQ.4	0.668				
PQ.5	0.610				
PQ.6	0.732				
PQ.7	0.709				
PQ.8	0.639				
PQ.9	0.612				
PA.1	0.791	0.916	0.914	0.597	Valid and Reliable
PA.2	0.851				
PA.3	0.79				
PA.4	0.777				
PA.5	0.778				
PA.6	0.78				
PA.7	0.794				
PA.8	0.749				
PA.9	0.625				
At.1	0.814	0.886	0.916	0.510	Valid and Reliable
At.2	0.703				
At.3	0.645				
At.4	0.661				
At.5	0.663				
At.6	0.806				
At.7	0.733				
At.8	0.618				
At.9	0.759				
PD.1	0.760	0.914	0.911	0.586	Valid and Reliable
PD.2	0.807				
PD.3	0.804				
PD.4	0.715				
PD.5	0.795				
PD.6	0.829				
PD.7	0.666				
PD.8	0.759				
PD.9	0.745				

Referring to the research framework and after processing the data questionnaires from 149 respondents, the structural model from smart PLS-SEM is shown in Figure 4.

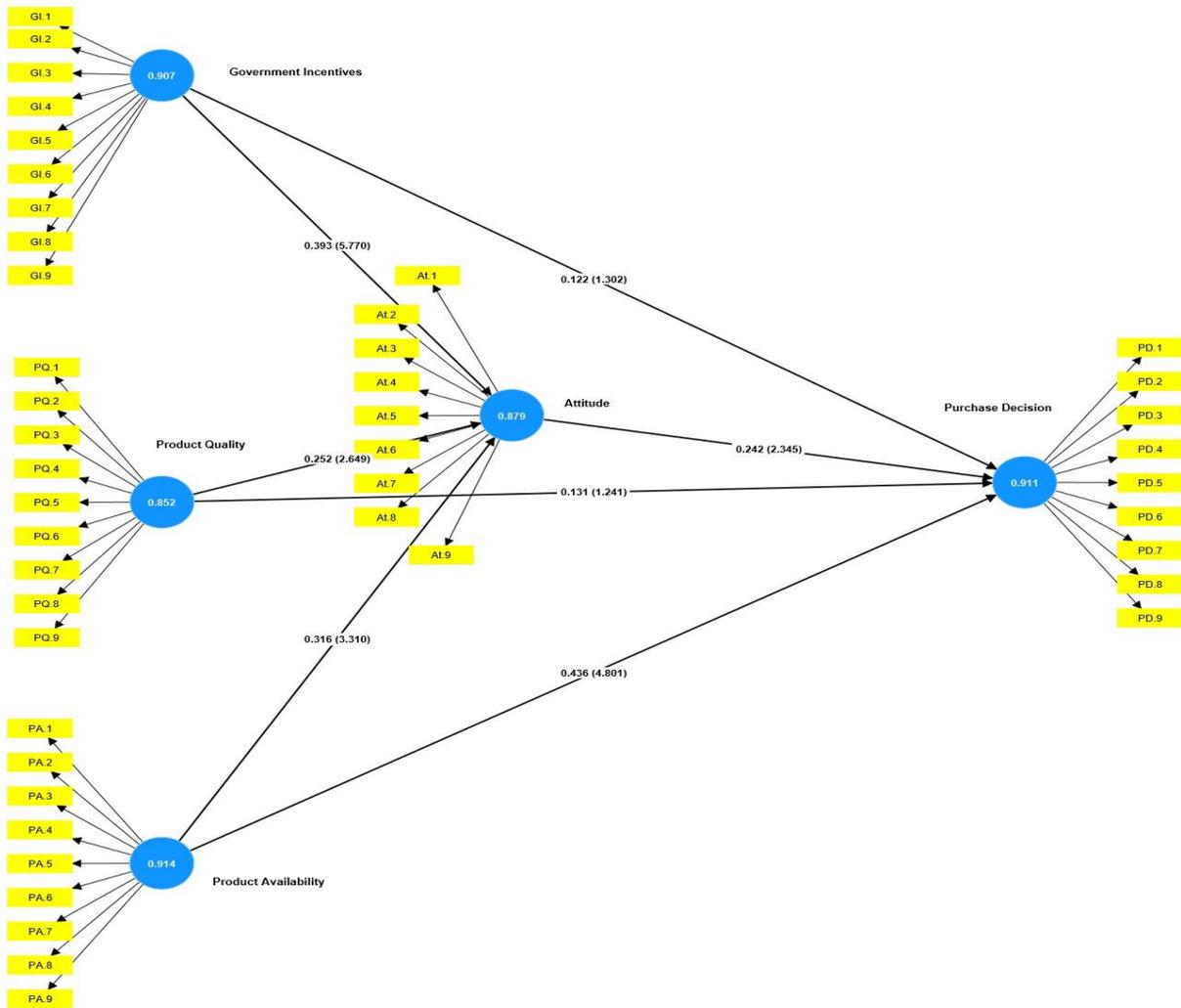


Figure 4. Inner model with path coefficients and T value -smart pls output

In this study, two-tailed test were conducted, this testing of the statistical significance is run using bootstrapping. P value <0.05 and T statistic > 1.96 are two parameters to measure the statistical significance from the testing of the hypothesis. The path coefficients, P values, and T-statistics from the bootstrapping process show the result as follows at Table 4.

Table 4. Path Coefficients – Smart PLS output

PLS patch coefficient	Original sample (O)	Standard deviation (STDEV)	T-Statistics	P values	Result
Government Incentives -> Purchase Decision	0.122	0.094	1.302	0.193	Not Significant
Product Quality -> Purchase Decision.	0.131	0.105	1.241	0.215	Not Significant
Product Availability -> Purchase Decision	0.436	0.091	4.801	0.000	Significant
Government Incentives -> Attitude	0.393	0.068	5.770	0.000	Significant
Product Quality -> Attitude	0.252	0.095	2.649	0.008	Significant
Product Availability -> Attitude	0.316	0.095	3.310	0.001	Significant
Attitude-> Purchase Decision.	0.242	0.103	2.345	0.019	Significant

Based on the results of the testing hypothesis, in the greater area of Jakarta, government incentives and product quality do not have a significant effect on consumer purchase decision for BEVs. While product availability has a positive and significant effect on consumer purchase decision for BEVs. On other hand government incentives, quality, and product availability have a positive and significant

effect on consumer attitudes toward the purchase of BEVs. Lastly, attitude has a positive and significant effect on consumer purchase decision for BEVs in the greater area of Jakarta.

**Model Fit and PLS Predict.**

Henseler et al. (2014) introduce the SRMR as a goodness of fit measure for PLS-SEM that can be used to avoid model misspecification. The SRMR is defined as the difference between the observed and implied correlation matrices in the model. A good fit is defined as a SMMR value < 0.10 or 0.08 (in a more cautious variant; see Hu and Bentler, 1999).

*Table 5. Model Fit- SRMR*

Model FIT	Saturated model	Estimated model
<b>SRMR</b>	<b>0.082</b>	<b>0.082</b>
d_ ULS	7.025	7.025
d_ G	3.347	3.347
Chi-square	2251.077	2251.077

As shown in table 5. the SRMR value from smart pls is 0.082 < 0.10. It means the structural model is fit and has a good prediction for different sample.

The PLS prediction algorithm has been developed by Shmueli et al. (2016). The method uses training and holdout samples to generate and evaluate predictions from PLS path model estimations. The Q<sup>2</sup> value in PLS predict compares the prediction errors of the PLS path model against simple mean predictions. The linear regression model (LM) offers prediction errors and summary statistics that ignore the specified PLS path model.

*Table 6. PLS Predict output -Smart pls calculation*

PLS Predict	Q <sup>2</sup> predict	PLS-SEM_RMSE	PLS-SEM_MAE	LM_RMSE	LM_MAE
At.1	0.467	0.642	0.497	0.681	0.497
At.2	0.396	0.718	0.549	0.681	0.514
At.3	0.27	0.878	0.7	0.993	0.78
At.4	0.246	0.633	0.478	0.638	0.504
At.5	0.319	0.514	0.416	0.587	0.447
At.6	0.509	0.613	0.435	0.696	0.497
At.7	0.305	0.707	0.568	0.807	0.63
At.8	0.199	0.916	0.716	0.899	0.713
At.9	0.389	0.603	0.453	0.679	0.519
PD.1	0.343	0.506	0.39	0.562	0.432
PD.2	0.476	0.545	0.416	0.602	0.439
PD.3	0.454	0.464	0.34	0.518	0.378
PD.4	0.261	0.574	0.43	0.657	0.498
PD.5	0.428	0.551	0.407	0.64	0.465
PD.6	0.344	0.522	0.383	0.581	0.434
PD.7	0.332	0.719	0.557	0.84	0.613
PD.8	0.359	0.516	0.392	0.553	0.4
PD.9	0.417	0.542	0.424	0.605	0.481

As shown in Table 6, the Q-square from PLS predict all are positive, greater than 0, there are 17 out of 19 lines where the values of RMSE and MAE from PLS predict are lower than the linear regression model (LM). With that result conclude that the structural model has a good predictive power, the model is good and fit.

### C. RESULTS AND DISCUSSION

The purpose of this research is to discover the elements that influence the purchase of a battery electric vehicle (BEV), assess their impact, and determine the most influential factor. Based on the statistical tests performed following the result of hypotheses.

Government incentives do not have a significant effect on consumer purchase decision for BEVs in the greater area of Jakarta. This is supported by a coefficient value of 0.122, with T- Values of 1.302 < 1.96 and P Value 0.193 > 0.05. Aligning with the previous research relating to the government incentives, a study in Suwon City, Korea. found that information and government policy on EVs have no significant effects on the decision of vehicle purchase (Kim, S et al., 2022). Education regarding the benefits of using EV in Indonesia is still lacking, despite efforts to promote it by government. It is very importance to improve public awareness regarding incentives and benefits of EVs in order to incentivize purchase of an EV. (Aditya et al., 2021).

Product quality does not have significant effect on consumer purchase decision for BEVs in the greater area of Jakarta. This is supported by a coefficient value of 0.131, with T- Values of 1.241 < 1.96 and P Value 0.215 > 0.05. This is very interesting to further investigate to this finding, to deepening the analyze to have better understand why quality is not a significant factor in EV purchase decisions in the greater Jakarta area, it would be beneficial to conduct focus groups to gather insights directly from BEV expert and practitioners.

Product availability has significant effect on consumer purchase decision for BEVs in the greater area of Jakarta. This is supported by a coefficient value of 0.436, with T- Values of 4.801 > 1.96 and P Value 0.00 < 0.05. The results of this hypothesis support research conducted by (Kim, S et al., 2022) that accurate information of product and vehicle supply influence to the EV Purchase decision. Failing to account for product availability correctly can lead to biased estimates of demand, which can give misleading estimates of sales and the welfare impacts of stock outs (Conlon and Mortier, 2008). Information on BEV stock availability, Time of delivery from BEV, and BEV Availability are the key factors which influence customer to the purchase of the BEV.

Government incentives have significant effect on consumer attitude toward the purchase decision of BEV in the greater area of Jakarta. This is supported by a coefficient value of 0.393, with T- Values of 5.77 > 1.96 and P Value 0.00 < 0.05. The financial incentives for the existence of BBNKB and PKB exemption facilities, and incentive for 10% VAT tax reduction are the key factors that influence to consumers. Consumers carefully consider the incentives provided by the government when deciding on the purchase of electric cars. These incentives are important and giving effect to the attitude on the cognitive aspect which is related to the understanding the main incentives or subsidize available for BEV buyers.

Product quality has significant effect on consumer attitude toward purchase decision of BEV in the greater area of Jakarta. This is supported by a coefficient value of 0.252, with T- Values of 2.469 > 1.96 and P Value of 0.008 < 0.05. Factor aesthetics and technology for easy driving and comfort,

followed by design and safety features are important and influence consumers' attitudes from the cognitive aspect to their knowledge, to determine the purchase of electric cars.

Product availability has significant effect on consumer attitude toward purchase decision of BEV in the greater area of Jakarta. This is supported by a coefficient value of 0.316, with T- Values of 3.31 > 1.96 and P Value 0.001 < 0.05. Referring to the results of testing the smart PLS-SEM model, the existence of accurate and reliable information from dealers about the electric cars sold is important in influence the customer attitude from the cognitive aspect, followed by time of delivery and its BEV stock.

Attitude has significant effect on purchase decision for BEVs in greater area of Jakarta. This is supported by a coefficient value of 0.436, with T- Values of 4.801 > 1.96 and P Value 0. < 0.05. This result also supports to the research done by Bhutto et al. (2020) that consumer attitude is positively related to consumer purchase intention. Lou et. al, (2017) Attitude towards the purchase of NEVs has a positive effect on the behavioural intention. Among attitudinal attributes, environmental and economic perceptions concerning EV use were the strongest predictors for an EV purchase, (Lashari et. al, 2021).

#### **D. CONCLUSION, STUDY LIMITATION, AND SUGESSTION**

In summary, product availability and attitude have a favourable and substantial impact on customer purchasing decisions for BEVs. Furthermore, the product availability is critical since it is discovered to be the most important variable construct. Deepening the analyst from the importance performance map (IPMA) there are 3 indicators of product availability need to be focused by BEV dealers to improve the performance that can influence the purchase decision of BEV from the potential customer. First indicator PA.3 this is relate to the availability of various choices of electric cars with driving range capabilities / mileage that suits driving habits and consumer needs. Followed by PA.9 related to different and unique services of distributors against its competitors which lead consumer to BEV distributor chosen. The last indicator is PA.1, The price range and types of electric cars available are important factors in deciding on the purchase of an electric car

The availability of battery electric cars is very dependent on the manufacturer's capabilities, and currently most of them, are still imported. Having accurate information of product and vehicle supply, time of delivery after purchase are the key factors which influence customer to the BEV purchase decision. Lastly, consumers want to immediately enjoy the benefits of owning electric cars. Hence it is very importance to improve public awareness regarding incentives and benefits of EVs in order to incentivize purchase of BEV.

The limitation of this research, the participants in this study were selected from respondents who lived in the greater area of Jakarta, that only covers for BEV. It is suggested for the future research for the adoption of EVs could also consider all types of EVs, which consist of battery electric vehicles (BEV), hybrid electric vehicles (HEV), and plug-in hybrids (PHEV). However, it is important to acknowledge that the BEV adoption also polarizes in big urban cities in Indonesia, particularly in Java Island. In order to deepening the analysis to gain better understand why quality is not a significant factor in EV purchase decisions in the greater Jakarta area, focus groups would be useful for gathering insights directly from BEV experts and practitioners. There is an opportunity for future research to measure some approaches that might potentially improve the effectiveness of incentives in encouraging BEV adoption include addressing gaps in the infrastructure of charging stations, and improving consumer awareness.

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