EFFECT OF PERCEIVED QUALITY, PERCEIVED USEFULNESS, AND PRICE PERCEPTION IN ELECTRIC CAR

Thesis

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ABSTRACT

This research explores the possible advantages of switching to electric vehicles (EVs) in Indonesia, a developing country facing pressing transportation challenges. The study investigates the factors influencing customer interest in buying electric cars, including perceived quality, usefulness, and price. It highlights the importance of government policies and regulations to accelerate EV adoption and reduce greenhouse gas emissions. Additionally, the research addresses the challenges associated with EV adoption in Indonesia, such as limited charging infrastructure and public awareness. This thesis will use SEM- PLS method analyses with Smart PLS 4, this research collected and analysed data from 100 females and males.

Keywords: Perceived Quality, Perceived Usefulness, and Price Perception

CHAPTER I

INTRODUCTION

1.1 Research Background

The radical move of Indonesia's transportation industry away from fossil fuels and toward electric cars (EVs). Adoption of electric vehicles (EVs) as a sustainable replacement for traditional fossil fuel-powered automobiles is a paradigm shift with important social, environmental, and economic ramifications. As a developing nation going through a period of fast urbanisation and population increase, Indonesia has serious transportation problems, including air pollution, traffic jams, and a reliance on imported fossil fuels. Driving toward a cleaner and greener future while addressing these issues is made more appealing by the arrival of EVs. This study's main goal is to investigate the possible advantages of Indonesia switching to electric vehicles. (Chisholm,2023). An electric vehicle (EV) is one solution for reducing carbon emissions and the use of fossil fuels in order to create sustainable transportation.

In the future, electric cars may progressively replace vehicles that run on fossil fuels. This pattern indicates that the number of people using electric vehicles—particularly electric cars—is still rising. Indonesia has the greatest deposits of nickel in the world, which is a crucial raw material for the production of electric vehicle batteries (EVB), therefore it is well-positioned to take advantage of this potential. (Victor, 2023) As a sustainable invention, electric cars have the potential to lower greenhouse gas emissions from burning fossil fuels and cut CO_2 emissions as well as the use of fossil fuels. In actuality, nevertheless, Indonesian electric car sales have not yet achieved the targeted level as of 2021. (Atika maso, 2022) Conventional motorised cars have a high fuel consumption, which leads to air pollution and fuel shortages. A remedy to this issue is to replace gasoline-powered automobiles, particularly sedans, with electric vehicles. With varying performance differences, many electric car manufacturers have offered their cars to Indonesia. (Nabila, 2023) With 619,840.03 carbon emissions in 2019, Indonesia came in second place, after India. In order to attain zero emissions by 2060, the Indonesian government pushed citizens to buy electric cars and released a zero emission strategy in 2022. The Chinese company Wuling seized the chance to

introduce its first electric car, the Wuling Air EV, in Indonesia in response to the enormous potential market for the development of electric vehicles in that country. (Setiowati, 2023). Ecological awareness's influence on the adoption and use of electric vehicles (EVs) in light of the benefits to the environment and the shift in emphasis from "traditionally perceived usefulness" to "green perceived usefulness." (Chawla, 2023).

Transportation is the backbone of every economy and directly affects every individual. Most transportation is done by conventional automobiles with internal combustion engines. Conventional automotive emissions have an adverse effect on the environment. It releases greenhouse gases associated with global warming, including methane (CH_4), carbon dioxide (CO_2), and nitrous oxide (N_2O). Electric vehicles outperform traditional cars in terms of total cost- and energy-effectiveness. However, it is challenging to maintain power quality, power demand, voltage regulation, harmonic contamination, frequency deviation, system adequacy, etc. Electric vehicles can be used as an energy storage element and can feed power to the grid in case of emergencies. (Kiem, 2023). The electrification of vehicles represents a promising measure for decarbonizing the transport sector. Several countries worldwide have created incentives to promote the mass adoption of electric vehicles (EVs) to mitigate the environmental and energy effects caused by the increased road transport demand; however, many consumers remain sceptical about EVs. (Hanssen,2023)

The Indonesian market for electric cars (EVs) has not grown significantly because of the low rate of EV adoption. Improved laws and regulations must hasten the adoption of electric vehicles (EVs) if the Indonesian government is to fulfill its commitment to cut greenhouse gas (GHG) emissions by 29% by 2030. Understanding the electric car market and the systemic barriers that obstruct the application of policies can result in positive outcomes for reaching the desired decrease in emissions. Moreover, the many perspectives and apprehensions present in the electric car sector highlight the complex and dynamic nature of the system. (Natalia, 2020)

In Indonesia, there are still many people who are unfamiliar with the presence of electric cars and have low awareness of finding out information. This thesis was created with the aim of providing customers with a better understanding of the importance of switching from petrol to electric cars

This thesis demonstrates that consumer interest in purchasing electric automobiles is significantly influenced by Perceived Quality, perceived Usefulness, and Price Perception. A number of variables, including cost of the battery, warranty duration, performance, pricing range, and tax advantages, might affect how good and useful people think electric cars are. Factors like the distance from home to the charging station, the time it takes to recharge, and the assurance of longevity all affect how easy something is seen to be to use. A number of characteristics, including usability, performance, convenience of use, and technological savvy, affect how people perceive prices. The producers of electric vehicles and legislators looking to promote the usage of electric vehicles should take note of these facts.

1.2 Research Problem & Research Gap

This study was conducted to understand how changes in public awareness about the importance of protecting the environment and love of nature influence purchasing decisions on electric cars, for example an increase in public interest in buying electric cars as a more environmentally friendly alternative. Therefor research gaps of this study is limited of studies that specifically address the viewpoint of customers and their willingness to pay for electric automobiles since In Indonesia,

1.3 Research Question

The question is aimed at answering some people's questions about the advantages of electric cars or people who want to buy an electric car, some of the questions below might help:

1. What is the effect of perceived quality on the intention to buy an electric vehicle?
2. What is the effect of perceived usefulness on the intention to buy an electric vehicle?
3. What is the effect of price perception on the intention to buy an electric vehicle?

1.4 Research Objective

The aim of this research is to examine the challenges and opportunities associated with its perceived quality, perceived usefulness, and pricing perception in Indonesia. the study we aim to as stated below:

1. To analyse the effect of Perceived quality on the intention to buy an Electric Vehicle (car) in Indonesia
2. To analyse the effect of Perceived usefulness on the intention to buy an Electric Vehicle (car) in Indonesia
3. To analyse the effect of Pricing perception on the intention to buy an Electric Vehicle (car) in Indonesia

1.5 Benefit of The Research

1.5.1 Academic

This thesis will be useful to academic researchers, especially in the context of discussions around customer perceptions and how these beliefs can impact consumer behaviour and, ultimately, electric vehicle demand.

This study covers the desire to buy an electric car. Specifically, how the infrastructure outlined above can influence demand and increase consumers' propensity to purchase. The data presented in this study may be useful to Indonesian researchers studying electric vehicles (EVs) and related infrastructure, as it expands

the pool of EV publications available for their consultation. Electric vehicle researchers can also use this research as a resource to help manufacturers develop their products

1.5.2 Industry

For car manufacturers or governments who want to know about or want to make new breakthroughs regarding electric cars, they can take advantage of this report. This report refers to customer satisfaction. Car manufacturers can use this report as an innovation for electric cars that will be launched in the future, so that they can be more suited to what customers need. The government can also use this report as a starting point in creating regulations and taxation on electric cars, in order to speed up the transition from petrol to electric cars.

1.6 Research Flow Chart

The aim of this research is to help people out there who want to understand more about electric cars or people who want to buy but are still unsure about their decision. Especially for young people or people who have just started a family.
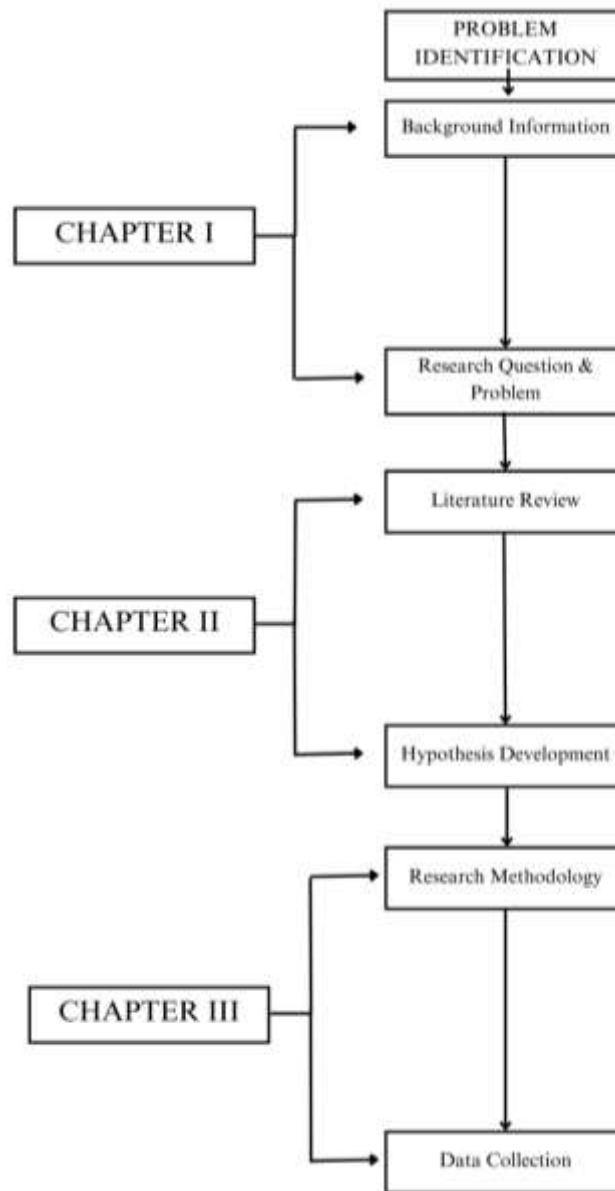
Figure 1.1 Research Flow Chart

This systematic review of research consists of the sections and chapters that will be reviewed in this research. These parts are as stated below:

Chapter I : The Introduction

The research background and the techniques employed to identify the scientific questions this study will examine are covered in this chapter. This study

will discuss the purpose of the research, how this article might assist researchers, the location of the study, and the methodical writing style.

Chapter II : Literature Review

This chapter will discuss the research background and summarise the findings from the literature in the form of interconnected hypotheses that can be used as a basis for research. The literature review was collected with the help of consumer behaviour literature on the development of electric cars, as well as other magazines, thesis papers, and secondary data from the Internet.

Chapter III : Research Methodology

This chapter covers study variables, sample techniques, data collection, processing, and analysis, as well as the creation of research hypotheses. It also covers the methodology for this investigation.

1.7 Research Outline

There are five chapters in this thesis paper, and each one contributes significantly to the development of the overall conclusion and further suggestions. Each chapter and its contents are highlighted by the points listed below:

Chapter I : The Introduction

The exploration foundation and the procedures utilised to distinguish the logical inquiries this study will analyse are shrouded in this section. This study will talk about the reason for the examination, how this article could help scientists, the area of the review, and the purposeful composing style.

Chapter II : Literature Review

This section will examine the exploration foundation and sum up the discoveries from the writing as interconnected speculations that can be utilised as a reason for research. The writing audit was gathered with the assistance of buyer

conduct writing on the advancement of electric vehicles, as well as different magazines, postulation papers, and auxiliary information from the Web.

Chapter III : Research Methodology

This part covers concentrate on factors, test procedures, information assortment, handling, and investigation, as well as the formation of examination speculations. It likewise covers the approach for this examination.

Chapter IV : Finding, Analysis, And Discussion

Using the study variables and statistical tools, this chapter aims to address the scientific issues raised in the previous chapter.

Chapter V : Conclusion and Recommendation

Conclusions and recommendations explain the research and its implications for charging infrastructures and EV consumer behaviour variables that could be studied more for the public to gain knowledge on EVs and their infrastructures

CHAPTER II
LITERATURE REVIEW

The research background will be discussed in this chapter, along with a summary of literature findings in the form of related hypotheses that can become the basis for further investigation. The literature review was collected using secondary data from the Internet, various magazines, thesis papers, and consumer behaviour literature on the evolution of electric cars. This part will also explain the variables related to the research. Apart from that, here we also carry out analysis and collect existing facts.

2.1 Variable Explanation

A variable is something that can change value. A research variable is an attribute/trait/value of a person, object or activity that has certain variables determined by the researcher to be studied and conclusions drawn.

2.1.1 Perceived Quality

Perceived quality (PQ) is defined as an impression of quality influenced by quality cues, especially under conditions of limited consumer product knowledge, known as information asymmetry. (Solin,2023)

Perceived quality in general, While the former usually draws attention, it is hard to get meaningful outcomes relative to investment. For instance, there is no assurance that the styling will get better in proportion to the amount invested, even if a big budget is set up for a design styling project. Perceived quality also clearly yields a return on investment. Achieving high quality requires a significant expenditure.(Kato,2022)

2.1.2 Perceived Usefulness

Perceived usefulness (PU) is the perception of use regarding the extent to which technology can improve performance and influence purchasing decisions. (Ellitan, 2022). Perceived usefulness refers to the importance individuals place on the benefits of electric vehicles, influencing their intention to adopt based factors like demographics, travel behaviours, and infrastructure accessibility.

The influence of variables that mediate the relationship between various independent variables and the outcome variable on the relationships of informational influence, value-expressive influence, and product innovativeness with the acceptance of electric vehicles is known as the perceived usefulness signified mediation effect. On the pathways between perceived utility and adoption of electric vehicles, positive moderating effects of age, income, and gender were also found. Overall, the study makes a substantial addition to both the variables included in the study and the electric car industry as a whole. (Shanmugavel, 2022)

2.1.3 Price Perception

Price perception, which is impacted by price sensitivity, pricing knowledge, desire to pay, price justice, and cultural variations like collectivism and thought patterns, is the perception of price that affects purchase decisions. (Sajeev, 2022). The term "price perception" describes how customers understand and assess the costs of goods and services. It is quite important while making purchases. (Havidz, 2022).

Consumers perceive price value when buying electric cars due to advancements in technology, battery efficiency, and environmental benefits, influencing their purchase intention and market growth. (Jethliya, 2022).

2.2 Hypothesis Development

2.1.1 *The Influence of Perceived Quality on Electric Vehicle (EV)*

relationship between product quality, perception of luxury, brand attitude, and purchase intent for luxury brands, confirmed that perceived value positively impacted brand attitude, perception of luxury improved consumer attitude towards luxury products, and perceived value significantly influenced purchase intention. (Nuzula, 2023).

Hypothesis 1 (H1). Perceived Quality (PQ) Significantly affects the intention to buy on use of electric vehicles in Indonesia.

2.2.2 *The Influence of Perceived Usefulness on Electric Vehicle (EV)*

This case talks about usability measured by the number of (population-weighted) Tesla and standard chargers publicly available within five minutes walking distance of an individual's residential district and subjective (i.e., perceived and prospective) accessibility is measured by four Likert-scale questions. The results show that objective accessibility significantly and substantially influences an individual's intention to purchase an EV. Meanwhile, both perceived and prospective accessibility are highly significant for the adoption intention of non-EV owners. We also observe significant effects for perceived and prospective driving ranges, environmental consciousness and prior experience with EVs. (Sylvia, 2022).

Hypothesis 1 (H1). Perceived Usefulness (PU) Significantly affects the intention to buy on use of electric vehicles in Indonesia.

2.2.3 *The Influence of Price Perception on Electric Vehicles (EV).*

Price perception is the consumer's evaluation of a product's value in relation to its price. Brand image refers to consumers' perception of a product brand that is

embedded in their minds. (IJE, 2019). Emotional and inferential dimensions of a brand price image with each other and with the buying intention, and analyse how brand price-level perception influences the buying intent through different positive and negative paths and whether the strength of these paths differs between price tiers. (Zielke, 2022).

Moreover, the moderating effect of contextual prices, such as product-line prices and prices of other brands, can influence how consumers perceive advertised reference prices, affecting their purchase intentions. (Shuh Lii, 2023).

Hypothesis 1 (H1). Price Perception (PP) Significantly affects the intention to buy on use of electric vehicles in Indonesia.

2.3 List of Previous Studies

Table 2.1 List of Previous Studies

Research Title Author	Variable of Interest		Finding	Gap
1.Liliana Ingrit Wijayana The Antecedents of Purchasing Intention on Electric Vehicles in Indonesia Year 2023	Price perception to purchasing electric vehicles.		To find out what is the attraction or that makes people in Indonesia interested in buying electric vehicles.	This Journal only talks more about manufacturers than customers who are looking for ways to achieve targets, without explaining the aspects of the variables that I created
2.Thor-Erik Sanberg Hanssen Electric Vehicles: An Assessment of Consumer	Consumer perception of various EV attributes, including driving range, safety, energy efficiency,		To make people confident in using electric cars	This journal discusses all the indicators that electric cars have and the impacts caused by electric cars,

Research Title Author	Variable of Interest		Finding	Gap
Perceptions Using Importance-Performance Analysis

2023 | winter driving quality, and environmental impact, to understand how these factors influence consumer satisfaction and the attractiveness of EVs in the market. | | | but it does not discuss variables like the ones I made. |

Source: Several Sources

2.4 Theoretical Framework

Theoretical framework is a picture or plan that contains an explanation of all the things that are used as research material based on the results of the research, below are the variables that will be explained in this thesis
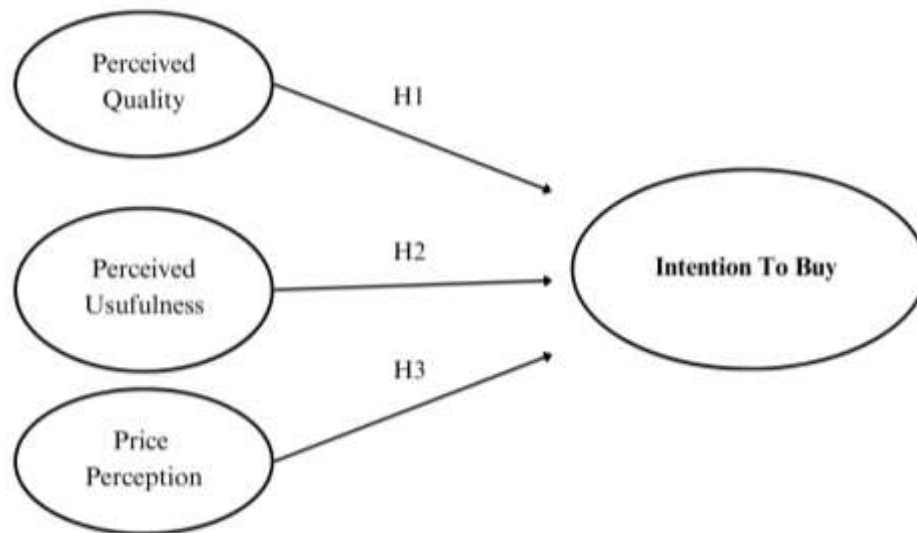
Figure 2.1: Theoretical Framework

Source:Several sources modified from Kotler, Mowen & Minor, Kan, Jafaar

CHAPTER III
RESEARCH METHODS

Study variables, sampling procedures, data processing, analysis, and generation of research hypotheses are all covered in this chapter. It also discusses the investigation's technique. This chapter will explain about the method we use Structural Equation Modelling - Partial Least Square (SEM-PLS).

3.1 Research Design

This research uses a quantitative approach with an explanatory design to test the relationship between predetermined variables. Quantitative research involves calculating variables to produce numerical data, testing hypotheses, and establishing cause-and-effect relationships, which is commonly used in the natural and social sciences to obtain reliable and objective results. (Mohajan, 2020). The survey data that has been gathered will be further examined using statistical analysis techniques. Determining the precise cause and effect correlations between different variables is the aim of explanatory design. Explanatory variables are frequently used to explain changes in a variable's value as well as differences in values between variables to determine whether they have a positive or negative impact and whether they are significant or inconsequential. This study is intended for those who are still on the fence about purchasing an electric vehicle as well as businesses that want information regarding electric vehicles.

3.2 Population and Sampling

The study's sample is purposive sampling is a sampling approach that takes specific factors or criteria into account, such as the ability to purchase electric vehicles. According to (Mark, 2023) Population refers to a complete collection of objects sharing certain characteristics, while a sample is a subset selected from this population for study. Sampling is crucial in research, as studies are typically conducted on samples rather than entire populations, with the challenge lying in drawing a random sample that accurately represents the target population. (simoncini, 2016).

A minimum sample size of 100–200 responders is required for SEM. Thus, the total sample size for the study is 100 individuals. (Hair, 2014), Therefore we take a sample for 100 respondent

Table 3.1: Sample Requirement

Requirement	Reason
Min 17 years old	Individuals who are currently licensed & whose parents can afford it
Monthly spending min Rp 10. 000.000 (Exclude Property)	Individuals that are able to purchase an EV
Have sufficient knowledge about EV cars	To make sure they can connect with the subject of the study

Source: Several Source

3.2.1 Definition of Operational of Variables

Variables are symbols that represent values in research. It can be nominal, ordinal, interval, or ratio, which is important in experimental design and statistical analysis in research methodology. (Rossi, 2010). There are endogenous and exogenous variables in this study. The independent variable is perceived quality, perceived usefulness, and price perception while the intention to buy (dependent variables). The following table shows in detail each variable, operational definition, indicators, and scale used in this research:

3.2.1.1 Ind☐ep☐end☐ent Variables

A factor that has an impact on the dependent variable is called an independent variable. The study's independent variables include perceived quality, perceived usefulness, and price perception.

3.2.2.2 Dependent Variables

A dependent variable is one that is altered or changed as a result of an independent variable. The dependent variable in this study is intention to buy.

Table 3.2 Instruments

Variable	Definition	Measurement
Perceived Quality (PQ) (Hanssen, 2023)	Perceived quality in buying an electric car refers to consumer evaluations of attributes like driving range, safety, energy efficiency, and battery consumption, influencing their satisfaction and purchase decisions.	1. Using an electric car every day can save you money on petrol. 2. Using an electric car every day is very comfortable and safe 3. Using an electric car every day cant get energy efficiency
Perceived Usefulness (PU) (Hanssen, 2023)	Perceived usefulness in buying an electric car refers to consumers' subjective evaluation of how beneficial an electric vehicle is perceived to be in meeting their needs and expectations.	1. The car power that can be felt instantly. 2. Using an electric car every day is the right choice 3. Using an electric car can be very friendly to the environment.
Price Perception (PP)	Price perception in	1. The amount paid may

Variable	Definition	Measurement
(Jethliya, 2022)	buying an electric car refers to how consumers evaluate the cost of purchasing an EV in relation to its value, features, and benefits compared to traditional vehicles.	be in line with the price of the electric car I will buy. 2. The features provided are in accordance with the price they provide. 3. The price of electric vehicles today is quite affordable
Intention to Buy (Riverso, 2023)	Consumers' intention to purchase electric vehicles is influenced by various factors. Studies show that attitudes, subjective norms, and perceived behavioural control significantly predict the intention to buy battery electric vehicles (BEVs	1. I considered buying electric cars because of battery consumption 2. I chose electric cars based on the benefits it offers. 3. I believe electric cars offer good value for money compared to similar gasoline vehicles.

Source: Several Sources

3.3 Data Collection Method

As previously said, a quantitative approach that undoubtedly takes use of quantitative data will be used to conduct this study. Quantitative data is produced through the measurement of quantitative variables, the values of which may be

numerically examined. For quantitative data, Likert scale ratings, which span from 1 to 5, indicate how well survey participants answered the questions. We will distribute the survey web-based questionnaire via Google Forms.

According to (Hassan, 2022) The information is helpful for making decisions. As organisations rely on data to inform their decisions, it is gathered regularly and from various sources. Because of their variety and ease of use, Google forms are often used to create surveys for event planning, interview staff or consumers, and collect a wide range of data. Users can ask questions in many formats with this technology. As electronic data proliferates, ensuring high data quality in both government and business applications grows. Data quality is a key aspect of decision-making and inter-organizational interaction.

Google Form is a tool by Google for data collection, offering real-time data storage accessible online through Google Drive (Wahidah, 2022). Google Form's impact includes time and cost savings, ease of question creation, and quick access to student performance data, making it a valuable resource for educators . Overall, Google Form serves as a versatile and efficient platform for questionnaire-based assessments in various educational contexts. Apart from that, we also list questions via offline examples such as from friend to friend, WhatsApp and other social media.

3.4 Data Analysis Technique

As previously mentioned, SEM-PLS, i use this method Because using the SEM PLS method is simpler than using SPSS, SEM PLS only requires one test with a limited sample while SPSS has to carry out several stages of testing, will be used to examine this research in order to ascertain whether or not the theoretical model that has been proposed and demonstrated above is consistent with the secondary data that has been gathered from journal articles theory.

3.4.1 A Descriptive Analysis of The Situation

Descriptive analysis is the practice of examining and assessing every variable that is accessible. The researcher uses structured statistical approaches (SEM-PLS) and examines each variable's indication to achieve this purpose.

3.4.2 Partial Least Square Analysis Using Structural Equation Modelling (SEM) (PLS).

Structural Equation Modelling, abbreviated as SEM, is a multivariate analysis method that can be used to simultaneously describe linear relationships between observed variables (indicators) and variables that cannot be measured directly (latent variables). PLS is a new technique that switches the focus of SEM from covariance-based to variant-based.

3.4.2.1 Outer Model — Structural Equation Modelling — Partial Least Square Modelling

3.4.2..1.1 Convergent Validity

Convergent validity refers to the extent to which different assessments or measures that are supposed to be measuring the same construct actually do so effectively. In the contexts provided, convergent validity was explored in various settings. The use of multiple methods to measure a construct, such as self-report and other-report data, can introduce a convergent validation model into research design, showing that different measures are significantly related and have similar construct validities. (Andreson, 1991).

3.4.2.1.2 Discriminant Validity

Discriminant validity is a crucial aspect of measurement validity in various fields, including marketing research and psychology. It refers to the ability of an instrument to distinguish between different constructs or traits. (Ronkko, 2022). This validation process involves demonstrating that the instrument can accurately identify and measure the unique nuances or levels of a specific trait or construct,

without confusion or overlap with other related constructs. (Dixon, 2019). Overall, ensuring discriminant validity is fundamental for developing reliable measurement tools and conducting valid research in diverse fields. (Mc Cabe, 2020).

3.4.2.1.3 Reliability

Reliability refers to the consistency in responses or test scores. A test is said to be reliable if a person answers consistently over multiple occasions. If the results of a test are close or identical after administering the test numerous times the test is said to be reliable. A test that is administered twice and provides different answers is not reliable and should not be trusted. An example of reliability is a scale used to determine one's weight. If you stepped on the scale two times back to back, you should get the same weight. If the scale gave you two different weights, it would be unreliable. (Reilly, 2022)

3.4.2.2 Structural Equation Modelling And The Partial Least Square Method For The Inner Model

3.4.2.2.1 The Determination of Coefficients (R2)

Interpretation of the R2 value is the same as the interpretation of R2 of linear regression, namely the amount of variability in the endogenous variable that can be explained by the exogenous variable. According to (Chin, 1998) the R2 criteria consists of three classifications, namely: R2 067, 0.33 and 0.19 as substantial, moderate and weak. Changes in the R2 value can be used to see whether the influence of exogenous latent variables on endogenous latent variables has a substantive influence. This can be measured by the effect size f2. (Cohen, 1988) said that the recommended Effect Size f2 is 0.02, 0.15 and 0.35 with exogenous latent variables having small, medium and large influence at the structural level.

3.4.2.2.2 The Relevance of Predictions (Q2)

Another test in structural measurement is Q2 Predictive relevance which functions to validate the model. This measure is suitable if the endogenous Latino

variable has a reflective measurement model. The results of Q2 predictive relevance are said to be good if the value is > which indicates that the exogenous latent variable is good (suitable) as an explanatory variable that is able to predict the endogenous variable.

3.4.2.2.3 Examination of The Hypothesis

One must first perform the t-test in order to obtain the t-statistic, which is a crucial step in the hypothesis testing process. The bootstrapping approach was applied to the t-test in this study to ascertain whether or not there was a statistically significant relationship between the many variables that comprised the research framework. A variable is considered to have a significant effect if its bootstrap value is more than or equal to 1.96; values less than 1.96 suggest that the effect is not very important. By examining the direction of the effect, one can ascertain if variables have positive or negative effects by calculating the value of the path coefficient. Next, using the bootstrapping technique, t-statistics and p-values are determined with a significance level of 5% in order to test the hypotheses. 1.96 in t-statistics.

CHAPTER IV

FINDINGS, ANALYSIS, AND DISCUSSIONS

4.1 Descriptive Analysis

Descriptive analysis is the process of summarising and interpreting data to extract useful information, aiding decision-making and understanding of observed variables in various fields.

4.1.1 Respondents Profile

Respondents to this research must meet the predetermined criteria, namely people who use electric cars, people who are familiar with electric cars and have a total expenditure of at least Rp. 8,000,000 also this data was taken from June 10 to June 20 2024. Then, the second part contains questions to ask in more detail regarding their profile, namely: age, gender, occupation and monthly expenses. The respondent profiles are described below.

4.1.1.2 Age

Respondents' age is summarised in the table below.

Table 4.1 Respondent Profile Age

Age	Number of respondent	Percentage
18 - 25 years old	34	34 %
25 - 35 years old	49	49 %
> 35 years old	17	17 %

Source: Data Processing (2024)

As we can see from the information presented above, the age group 25 - 35 years old makes up the largest portion of respondents, accounting for 49% of the total. Then came a group of people with ages ranging from 18 - 25 years old came second place with 34% and last but the third place with the lowest number of respondents, age group of >35 years old with a proportion of 17%.

4.1.1.3 Gender

Respondents' gender is summarised in the table below.

Table 4.2 Respondent Profile Gender

Gender	Number of Respondent	Percentage
Male	64	64 %
Female	36	36 %
Total	100	100

Source: Data Processing (2024)

As we can see from the data above, the majority of respondents are male with 64% of total respondents. Then followed by female respondents with 36% of the total respondents, with a total of 100 respondents.

4.1.1.4 Occupation

Respondents' occupation is summarised in the table below.

Table 4.3 Respondent Profile Occupation

Occupation	Number of Respondent	Percentage
Student	21	21 %
Private Employee	40	40 %
Government Employee	15	15 %
Entrepreneur	18	18 %
Etc	6	6 %

Source: Data Processing (2024)

According to the information shown above, Private employees make up the largest share of responders, making up 40% of the total. Next students with a percentage of 21%, followed by those who are Government employees and Entrepreneur at 15%, and the lowest percentage is others with 6%

4.1.1.5 Monthly Expenses

Respondents' monthly expenses are summarised in the table below.

Table 4.4 Respondent Profile Monthly expenses

Monthly expenses	Number of Respondent	Percentage
Rp. 8.000.000 - Rp. 15.000.000	36	36 %
Rp. 15.000.000 - Rp. 20.000.000	30	30 %
Rp. 20.000.000 - Rp. 25. 000.000	25	25 %
> Rp. 25.000.000	9	9 %

Source: Data Processing (2024)

As we can see from the data above, the monthly expenses of the majority of respondents are Rp.8.000.000 -□ Rp.15.000.000 with 36% of total respondents. Then, followed by respondents with monthly expenses of Rp20,000,000 - □ Rp25.000.000 as much as 30%, respondents with monthly expenses of Rp15.000.000 - Rp20.000.000 as much as 25% and the last one is more than Rp25,000,000 as much as 9%.

4.1.2 Descriptive Statistics

Through this part, the researcher will show and explain each piece of data obtained through the survey. Each data will be discussed in detail and Likert scale

interpretation that will be divided into each classification and indicators measurement breakdown of each variable discussed in this study. The Likert discussed in the table below:

Table 4.5 Likert Scale Interval

Likert Scale	Interval	Classification
1	1.00 - 1.79	Strongly Disagree
2	1.80 - 2.59	Disagree
3	2.60 - 2.59	Neutral
4	3.40 - 4.19	Agree

Source: Data Processing (2024)

The result of the respondents' survey through Google Forms was at that point imported to SmartPLS 4 program to decipher and measurably analyse utilised SEM-PLS model. The results analysed by SmartPLS 4 will be clarified in more detail within the next segment.

4.1.2.1 Indicators of Perceived Quality (PQ)

According to the table below, the first indicator of PQ □which states "Using an electric car every day can save you money on petrol."□ Show results □with a □value of 4.720 which indicates most respondents agree with the statement. The second indicator of PQ states □"Using an electric car every day is very comfortable and safe.□" Shows results with a value, 4.590. The last indicator of PQ states "□Using an electric car every day can get energy efficiency.□" shows result with a value of 4.640 which indicates most respondents agree with the statement. The mean average score of the PQ variable is 0.260 and the standard deviation is 0.083, this researchers can conclude that respondents agree with the overall statement of Perceived Quality.

Table 4.6 Descriptive Statistic of Perceived Quality

No	Variable	Indicators	Mean	Standard Deviation
1		PQ 1 : Using an electric car every day can save you money on petrol.	4.720	0.665
2	Perceived Quality	PQ 2 : Using an electric car every day is very comfortable and safe.	4.590	0.763
3		PQ 3 : Using an electric car every day can get energy efficiency.	4.640	0.609

Source: Data Processing (2024)

4.1.2.2 Indicators of Perceived Usefulness (PU)

According to the table below, the first indicator of PU ☐which states "The car power that can be felt instantly." ☐ Show results ☐with a ☐value of 4.390 which indicates most respondents agree with the statement. The last indicator of PU states "Using an electric car can be very friendly to the environment.☐" This shows higher results than a first result with a value of 4.610 which indicates most respondents agree with the statement. The mean average score of the PU variable is 0.229 and

the standard deviation is 0.138, this researchers can conclude that respondents agree with the overall statement of Perceived Usefulness.

Table 4.7 Descriptive Statistic of Perceived Usefulness

No	Variable	Indicators	Mean	Standard Deviation
1	Perceived Usefulness	PU 1 : The car power that can be felt instantly.	4.390	0.773
2		PU 2 : Using an electric car can be very friendly to the environment.	4.610	0.720

Source: Data Processing (2024)

4.1.2.3 Indicators of Price Perception (PP)

According to the table below□, the first indicator of PP □which states "The amount paid is in line with the price of the electric car I buy.□" Shows results with a value of 4.010 which indicates most respondents agree with the statement. The second indicator of PP states "The features provided are in accordance with the price they provide.□" This shows higher results than the first result with a value of 4.270. It indicates that most respondents agree with the statement. The last indicator of PP states " The price of electric vehicles today is quite affordable.□" This shows lower results □with the first and the second result with a □value of 3.210 □which indicates most respondents agree □with the statement. The mean average score of the PP variable is 0.438 and the standard deviation is 0.102, thus the researcher can conclude that respondents agree with the overall statement of Price Perception.

Table 4.8 Descriptive Statistic of Price Perception

No	Variable	Indicators	Mean	Standard Deviation
1		PP 1 : The amount paid is in line with the price of the electric car I buy.	4.010	0.985
2	Price Perception	PP 2 : The features provided are in accordance with the price they provide.	4.270	0.870
3		PP 3 : The price of electric vehicles today is quite affordable	3.210	1.577

Source: Data Processing (2024)

4.1.2.4 Indicators of Intention to Buy (IB)

According to the table below□, the first indicator of IB □which states "I considered buying electric cars because of battery consumption.□" Shows results with a value of 4.410 which indicates most respondents agree with the statement. The second indicator of IB states "I chose electric cars based on the benefits it offers.□" This shows results with a value of 4.270. It indicates that most respondents agree with the statement. The last indicator of IB states "I believe electric cars offer good value for money compared to similar gasoline vehicles.□" This shows higher results □with the first and the second result with a □value of 4.550 □which indicates most respondents agree □with the statement.

Table 4.9 Descriptive Statistic of Intention to Buy

No	Variable	Indicators	Mean	Standard Deviation
1		IB 1 : I considered buying electric cars because of battery consumption.	4.410	0.826
2	Intention to Buy	IB 2 : I chose electric cars based on the benefits it offers.	4.270	0.823
3		IB 3 : I believe electric cars offer good value for money compared to similar gasoline vehicles.	4.550	0.792

Source: Data Processing (2024)

Difference between discriminant validity and convergent validity

Convergent and discriminant validity are the same thing: convergent validity requires a positive correlation between tests measuring the same thing, whereas discriminant validity requires no correlation between tests measuring different things.

4.2 Outer Model SEM-PLS Results

This study collected data from 100 respondents in Jakarta and its surrounding regions with a 30 minimum number of respondents suitable for a Structural Equation Modelling ☐ Partial Least Square (SEM-PLS) statistical

analysis. The first few statistical tests anal□se the o□ter model of the framework; □using □validity□ and reliability□ measurements.

4.2.1 Convergent Validity

Convergent validity serves the purpose of verifying the extent to which different assessment methods or tools measure the same underlying construct or concept (Chan, 2022). To assess convergent validity, the researcher tested the loading factors and AVE (Average Variance Extracted) of each item that correlates to all variables in this study. Loading factors and AVE will be covered in the section below.

4.2.1.1 Loading Factors Analysis
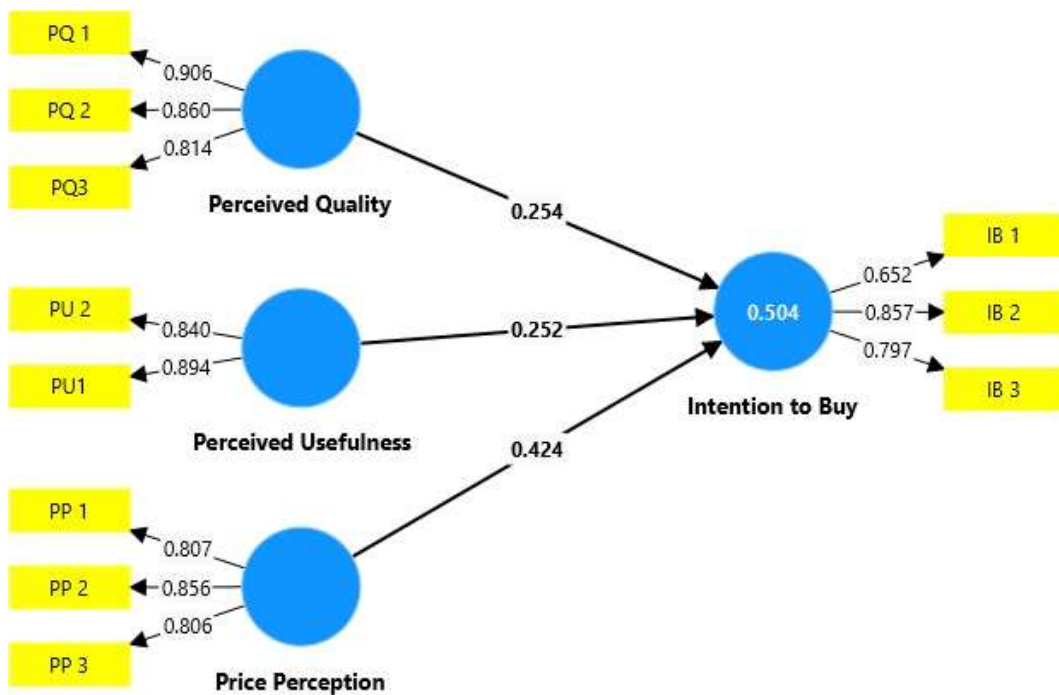
Figure 4.1: Loading Factor Analysis

Source: Data Processing (2024)

As a result, we can say that this study's loading factor is optimal, as previously stated. We will go into great depth about the loading factor analysis of each research variable in the next section.

1. Loading Factor Analysis on Perceived Quality

It is shown in the table below□, the loading factor of the first indicator (PQ1), *"Using an electric car every day can save you money on petrol."* Is 0.906, the loading factor of the second indicator (PQ2), *"Using an electric car every day is very comfortable and safe."* Is 0.860, the loading factor of the third indicator (PQ3), *"Using an electric car every day can get energy efficiency."* Is 0.814. In conclusion, the indicator □with the highest loading factor is the first indicator (PQ1), *"Using an electric car every day can save you money on petrol."* and the lowest loading factor is the first indicator (PQ3), *"Using an electric car every day can get energy efficiency."* In this case, the researcher can conclude that the loading factor of all items under Performance Expectancy is acceptable and measure the latent variable validly.

Table 4.10 Loading Factor Analysis □Perceived Quality

No	Variable	Indicators	Loading Factor
1	Perceived Quality	PQ 1 : Using an electric car every day can save you money on petrol.	0.906
2		PQ 2 : Using an electric car every day is very comfortable and safe.	0.860
3		PQ 3 : Using an electric car every day can get	0.814

		energy efficiency.	

Source: Data Processing (2024)

2. Loading Factor Analysis on Perceived Usefulness

It is shown in the table below□, the loading factor of the first indicator (PU1), *"The car power that can be felt instantly."* Is 0.894, the loading factor of the second indicator (PU2), *"Using an electric car can be very friendly to the environment."* Is 0.840. In conclusion, the indicator □with the highest loading factor is the first indicator (PU1), *"The car power that can be felt instantly."* and the lowest loading factor is the first indicator (PU2), *"Using an electric car can be very friendly to the environment."* In this case, the researcher can conclude that the loading factor of all items under Performance Expectancy is acceptable and measure the latent variable validly.

Table 4.11 Loading Factor Analysis □Perceived Usefulness

No	Variable	Indicators	Loading Factor
1	Perceived Usefulness	PU 1 : The car power that can be felt instantly.	0.894
2		PU 2 : Using an electric car can be very friendly to the environment.	0.840

Source: Data Processing (2024)

3. Loading Factors Analysis on Price Perception

It is shown in the table below□, the loading factor of the first indicator (PP1), *"The amount paid is in line with the price of the electric car I buy."* Is 0.807,

the loading factor of the second indicator (PP2), *"The features provided are in accordance with the price they provide."* Is 0.856, the loading factor of the third indicator (PP3), *"The price of electric vehicles today is quite affordable."* Is 0.806. In conclusion, the indicator □with the highest loading factor is the second indicator (PP2), *"The features provided are in accordance with the price they provide."* and the lowest loading factor is the first indicator (PP3), *"The price of electric vehicles today is quite affordable."* In this case, the researcher can conclude that the loading factor of all items under Performance Expectancy is acceptable and measure the latent variable validly.

Table 4.12 Loading Factor Analysis □Price Perception

No	Variable	Indicators	Loading Factor
1		PP 1 : The amount paid is in line with the price of the electric car I buy.	0.807
2	Price Perception	PP 2 : The features provided are in accordance with the price they provide.	0.856
3		PP 3 : The price of electric vehicles today is quite affordable.	0.806

Source: Data Processing (2024)

4. Loading Factors Analysis on Intention to Buy

It is shown in the table below☐, the loading factor of the first indicator (IB1), *"I considered buying electric cars because of battery consumption."* Is 0.652, the loading factor of the second indicator (IB2), *"I chose electric cars based on the benefits it offers."* Is 0.857, the loading factor of the third indicator (IB3), *"I believe electric cars offer good value for money compared to similar gasoline vehicles."* Is 0.797. In conclusion, the indicator ☐with the highest loading factor is the first indicator (IB2), *"I chose electric cars based on the benefits it offers."* and the lowest loading factor is the first indicator (IB1), *"I considered buying electric cars because of battery consumption."* In this case, the researcher can conclude that the loading factor of all items under Performance Expectancy is acceptable and measure the latent variable validly.

Table 4.13 Loading Factor Analysis ☐Intention to Buy

No	Variable	Indicators	Loading Factor
1		IB 1 : I considered buying electric cars because of battery consumption.	0.652
2	Intention To Buy	IB 2 : I chose electric cars based on the benefits it offers.	0.857
3		IB 3 : I believe electric cars offer good value for money compared to similar gasoline vehicles.	0.797

Source: Data Processing (2024)

5. Summary of Loading Factor Analysis

The summary of loading factor analysis in this study can be seen on the table below. To sum up, the loading factor of all indicators is above 0.5 which is acceptable and validly measures each latent variable in this study. The highest loading factor is PQ1, □Using an electric car every day can save you money on petrol. □with a score of 0.913 and the lowest loading factor is IB1, I considered buying electric cars because of battery consumption. With a score of 0.572.

Table 4.14 Loading Factor Analysis □Intention to Buy

No	Variable	Indicators	Loading Factor	Valid / Not Valid
1	Perceived Quality	PQ 1 : Using an electric car every day can save you money on petrol.	0.906	Valid
2		PQ 2 : Using an electric car every day is very comfortable and safe.	0.860	Valid
3		PQ 3 : Using an electric car every day can get energy efficiency.	0.814	Valid
4	Perceived Usefulness	PU 1 : The car power that can be felt instantly.	0.894	Valid
5		PU 2: Using an electric car can be very friendly to the	0.840	Valid

No	Variable	Indicators	Loading Factor	Valid / Not Valid
		environment.		
6	Price Perception	PP 1 : The amount paid is in line with the price of the electric car I buy.	0.807	Valid
7		PP 2 : The features provided are in accordance with the price they provide.	0.856	Valid
8		PP 3 : The price of electric vehicles today is quite affordable.	0.806	Valid
9	Intention to Buy	IB 1 : I considered buying electric cars because of battery consumption.	0.652	Valid
10		IB 2 : I chose electric cars based on the benefits it offers.	0.857	Valid
11		IB 3 : I believe electric cars offer good value for money compared to similar gasoline	0.797	Valid

No	Variable	Indicators	Loading Factor	Valid / Not Valid
		vehicles.		

Source: Data Processing (2024)

4.2.1.2 Average Variance Extracted (AVE)

The Average Variance Extracted (AVE) is a crucial indicator commonly used to validate constructs in statistics (Santos, 2021). As we can see in the table below, the AVE value of all variables is above 0.5. The AVE value of Perceived Quality (PQ) is 0.728 which is considered valid and highly acceptable, the AVE value of Perceived Usefulness (PU) is 0.735 which is considered valid and highly acceptable, the AVE value of Price Perception(PP) is 0.615 which is considered valid, the AVE value of Intention to Buy(IB) is 0.562 which is considered as valid.

Table 4.15 AVE Analysis

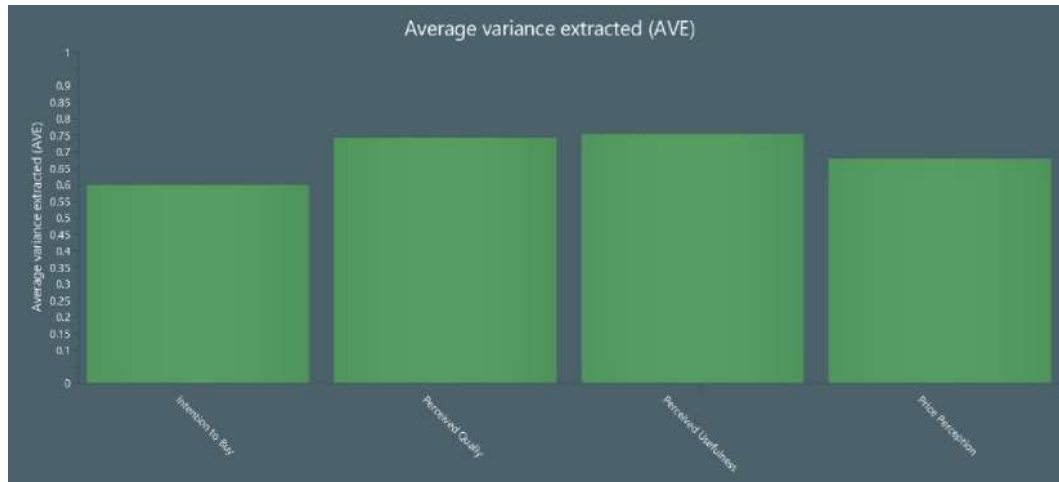| Variable	AVE	Valid/Not Valid
Perceived Quality (PQ)	0.741	Valid
Perceived Usefulness (PU)	0.752	Valid
Price Perception (PP)	0.678	Valid
Intention to Buy (IB)	0.598	Valid

Source: Data Processing (2024)

Figure 4.2 AVE Graph

Source: Data Processing (2024)

4.2.2 Discriminant Validity

Discriminant validity is a measure of whether latent variables in a model are distinct from one another. It ensures that the latent variables are measuring different aspects or dimensions of a phenomenon, rather than being redundant or overlapping. When each measurement item has a poor correlation with all other variables except the one that is related to, it shows that measures from various variables are distinct and do not converge on other variables (Hair et al., 2021).

From the table below, we can see that the cross-loading values of each variable with its own indicator is higher compared to other indicators that are not related. The cross-loading scores of IB1 (0.652), IB2 (0.857), and IB3 (0.797), are higher with its own latent variables rather than with other latent variables. The cross- loading scores of PQ1 (0.906), PQ2 (0.860), and PQ3 (0.814), are higher with its own latent variables rather than with other latent variables. The cross- loading scores of PU1 (0.894), PU2 (0.840), are higher with its own latent variable rather than with other latent variables. The cross-loading scores of PP1 (0.807), PP2 (0.856), and PP3 (0.806), are higher with its own latent variable rather than with other latent variables.

Table 4.16 Cross Loading Result

	Intention To Buy	Perceived Quality	Perceived Usefulness	Price perception
IB 1	**0.652**	0.265	0.096	0.478
IB 2	**0.857**	0.351	0.511	0.584
IB 3	**0.797**	0.493	0.592	0.268
PQ 1	0.489	**0.906**	0.474	0.247
PQ 2	0.395	**0.860**	0.471	0.166
PQ 3	0.335	**0.814**	0.464	0.112
PU 1	0.520	0.421	**0.894**	0.453
PU 2	0.429	0.533	**0.840**	0.182
PP 1	0.296	-0.044	0.057	**0.807**
PP 2	0.584	0.358	0.440	**0.856**
PP 3	0.452	0.083	0.321	**0.806**

Source: Data Processing (2024)

4.2.3 Composite Reliability

According to Ghozali, composite reliability is the part used to test the reliability value of indicators on a variable. According to (Hair, 2014) stated that the composite reliability value > 0.70 until 0.60 is still acceptable. Reliability is related to the accuracy and accuracy of the measurement. Reliability testing is carried out to test whether the data obtained from the research instrument shows adequate internal consistency.

According to the table below, we can see that the composite reliability of all latent variables are between 0.70 and 0.80. The composite reliability value of Perceived Quality(PQ) is 0.889, Perceived Usefulness(PU) is 0.847, Price Perception(PP) is 0.827, Intention to Buy (IB) is 0.790. Thus, the researcher can conclude that all composite reliability values in this study are good.

Table 4.17 Composite Reliability

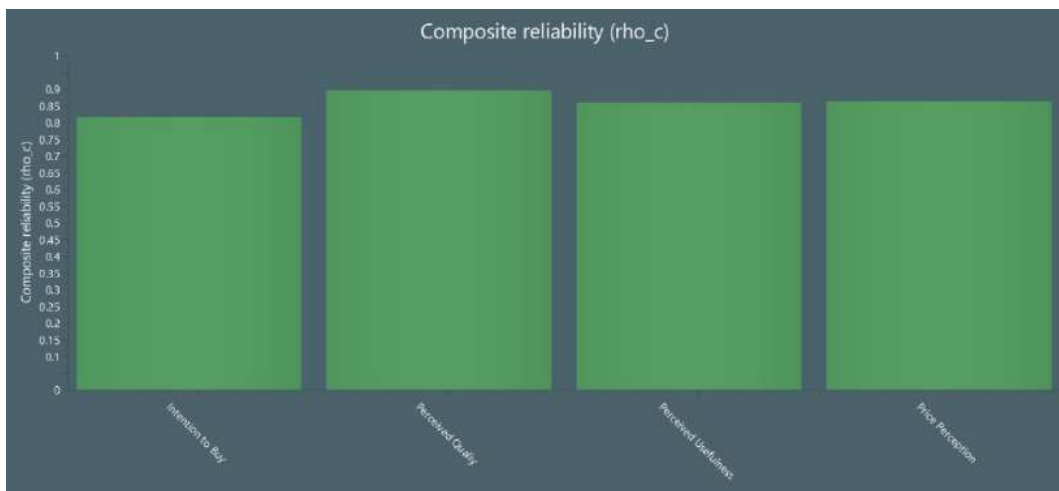| Variable	Composite Reliability
Perceived Quality (PQ)	0.815
Perceived Usefulness (PU)	0.896
Price Perception (PP)	0.858
Intention to Buy (IB)	0.863

Source: Data Processing (2024)

Figure 4.3 Composite Reliability Graph

Source: Data Processing (2024)

4.3 Inner Model SEM-PLS Results

The researcher has reviewed and assessed the validity and reliability of each indicator utilised in this study in the part that came before it. In this part, the researcher will go over the SEM-PLS inner model. This section will address the inner model, which is the part of the overall structural model that shows the connections between latent variables. The purpose of the inner model in SEM-PLS is to estimate the model's parameters, including the coefficient of determination (R2), predictive relevance (Q2), and hypothesis testing, as well as to test theories on the theoretical relationships between latent variables.

4.3.1 Coefficient of Determination (R2) Result

A statistical measure known as the coefficient of determination (R2) shows how much of the variance in a dependent variable can be accounted for by the independent variables in the model. The coefficient of determination, or R2, is a number between 0 and 1, where 1 shows complete explanation of the variance and 0 implies that no variance in the dependent variable is explained by the independent variables. In general, a greater coefficient of determination value shows a better model fit. According to (Hair, 2014) suggested that the R2 value should be between 0 and 1 with classification; 0.75 (75%) indicates substantial, 0.50 (50%) indicates moderate, and 0.25 (25%) indicates weak. As displayed in the table below, the coefficient of determination of each dependent variable after we convert to percentage are as follows; the R2 value of Intentional Behaviour is 43.5%.

Table 4.18 R2 Result

Variable	R2	R2 Adjusted
Intention to Buy	0.504	0.489

Source: Data Processing (2024)

4.3.2 Predictive Relevance (Q2) Result

The degree to which the observed values and the parameter estimations are produced by the model is one of the things that the Predictive Relevance (Q2) metric may evaluate. The presence of a predictive relevance value in the model is indicated by a Q2 value that is greater than 0 (zero). However, if the model has a Q-Square value that is less than 0 (zero), then the predictive relevance of the model is low or nonexistent (Ghozali, 2016). The following formula, developed by Hair (2014), can be used to calculate predictive value and relevance:

$Q_2 = 1 \square (1-R_1{}^2)$

$Q_2 = 1 - (1 - 0.504^2)$ $Q^2 = 1 - 0.254016$

$Q_2 = 0.745$

4.3.3 Hypothesis Testing Result

Figure 4.4 Path Coefficient Result

Source: Data Processing (2024)

The final step in the SEM-PLS analysis process is called "Hypothesis Testing," and its purpose is to determine whether or not the hypothesis being tested may be accepted. The path coefficient value or Original Sample (O), which can show the nature of the relationship between variables (whether it is positive or negative), T-Statistics, which can measure the significance, and P-Values, which can tell whether or not the hypothesis is supported or not. These are the measurement items. If the value is between 0 and 1, the Original Sample displays a positive result, but a number between -1 and 0 displays a negative result. If the T-statistics are higher than 1.96, the result is significant nevertheless, if they are lower than 1.96, the result is not significant. If the P-Value is less than 0.05, this indicates that the hypothesis is supported, but a value greater than 0.05 indicates that the hypothesis is not supported (Ghozali, 2014). The outcomes of this study's attempt to test the hypothesis are presented in the table that follows.

Table 4.19 Hypothesis Result

Hypothesis	Original Sample (O)	T-Statistics (|O/STDEV|)	P Value	Result	Hypothesis Result
Perceived Quality -> Intention to Buy	0.254	3.043	0.254	Positive and significant	Supported
Perceived Usefulness -> Intention to Buy	0.252	1.825	0.252	Positive and significant	Supported
Price Perception -> Intention to Buy	0.424	4.166	0.424	Positive and significant	Supported

4.3.3.1 The Effect of Perceived Quality on Intention to Buy

Perceived Quality (PQ) has a significant influence on Intention to Buy (IB). As the result shown by SEM-PLS analysis; the Original Sample value is 0.254 (indicated as positive), T- Statistics value is 0.083 (indicated as not significant because it is under 1.96), and P-Value is 0.001 (indicated as supported because it is less 0.05). In conclusion, Perceived Quality (PQ) has been proven to have a positive and significant influence on Intention to Buy (IB).

4.3.3.2 The Effect of Perceived Usefulness on Intention to Buy

The second hypothesis of this study states that Perceived Usefulness (PU) has a significant influence on Intention to Buy (IB). Firstly, it was discovered through hypothesis testing that with a positive original sample (O) of 0.252, Perceived Usefulness (PU) is indicated as positive correlation with Intention to Buy (IB). Secondly, this hypothesis scored a T-Statistics value of 1.825, is indicated as not significant because it is under 1.96 of the hypothesis. Lastly, the P-Value of this hypothesis is 0.034, which is indicating not supported because it is above 0.005. Thus, the second hypothesis is rejected as it is proven by this study that PU has no significant impact on consumers Intention to Buy (IB).

4.3.3.3 the Effect of Price Perception on Intention to Buy

The Last hypothesis of this states that Price Perception (PP) has a significant influence on Intention to Buy (IB). Firstly, it was discovered through hypothesis testing that with a positive sample (O) of 0.424, Price perception (PP) is indicated as positive correlation with Intention to Buy (IB). Secondly, this hypothesis scored a T-Statistics value of 4.166, is indicated as significant because it is above 1.96 of the hypothesis. Lastly, the P-value of this hypothesis is 0.000, which is indicating

support because it is lower than (0.005). In conclusion, Price Perception (PP) has been proven to have a positive and significant influence on Intention to Buy (IB).

CHAPTER 5

CONCLUSION AND RECOMMENDATION

5.1 Conclusion

In conclusion, the researcher has been working on this research for the past 5 months, starting from looking for topics and backgrounds, analysing the current situation and interest issues of electric vehicles in Indonesia, reviewing previous related research in multiple countries, and constructing a research Framework to define the purpose of the research, such as a one-tailed approach and questions taken from March 26 to July 20, find the appropriate research method model, data collection and data analysis to test the hypothesis through SmartPLS.

The purpose of this study is to analyse the influencing factors of EV's intentional behaviour in Jakarta has found the following results:

1. Perceived Quality positively and significantly influences Intention to Buy. Therefore, the first hypothesis of this study is acceptable.
2. Perceived Usefulness has significantly influenced Intention to Buy. Therefore, the second hypothesis of this study is acceptable
3. Price Perception positively and significantly influences Intention to Buy. Therefore, The last hypothesis of this study is acceptable.

5.2 Implication

This study has confirmed perceived quality, perceived usefulness, price perception, and intention to buy. Therefore, electric Cars marketers should strategize how they will utilise the good quality, best usefulness, and affordable price to ultimately increase intention to buy.

Referring to the loading factors explanation in Chapter 4 of this study, there are three highest loading factors to be paid attention to. The highest factors are under the Perceived Quality variable, and Perceived Usefulness. The highest indicator is PQ1: "Using an electric car every day can save you money on petrol." with the loading factor value of 0.906. The second highest indicator is PU1: "The car power that can be felt instantly." with the loading factor value of 0.894. The third highest indicator is PQ2: "Using an electric car every day is very comfortable and safe." with the loading factor value of 0.860. As a result, the loading factor can be useful

for the electric vehicle industry to develop more effective marketing plans to boost consumer intent to acquire electric vehicle goods.

5.3 Recommendation & Limitations

5.3.1 Limitation

Industry, the constraints of this study include variables, respondent number, respondent criteria, respondent industry, and respondent region. The research's methodology and conclusions are unique to the electric vehicle industry, and therefore cannot be applied to other distinct industries. The study's 100 participants, all of whom were residents of Jabodetabek, cannot be regarded as an appropriate sample of other cities with various population numbers. The Jabodetabek area of residence, possession of an electric automobile, and possession of a driver's licence were among the prerequisites that respondents to this study had to meet.

5.3.2 For Future Recommendation

Future studies should investigate aspects not covered in this study and cover a larger portion of the market for electric cars, according to the researchers. Numerous elements, such as brand image, battery quality, and the attractiveness of electric cars, may be investigated. Furthermore, a bigger sample size can cover a wider demographic and be helpful in obtaining study results of a better calibre. To obtain information from other Indonesian cities, researchers are also urged to gather respondents from a variety of cities outside of Jabodetabek.

5.3.3 For Business Point of View

Electric vehicles (EVs) represent a significant business opportunity across various industries, automotive manufacturers can capitalise on new revenue streams through EV production, battery manufacturing, charging infrastructure, and software and services. By developing advanced battery technology, autonomous driving systems, and charging solutions, they can establish themselves as

technological leaders and enhance their brand image as environmentally conscious and innovative. The energy sector stands to benefit from increased electricity demand driven by EV charging infrastructure development.

New business models, such as energy storage, demand response, and renewable energy integration, can emerge to address the growing energy needs. Additionally, EV batteries have the potential to contribute to grid stability by serving as energy storage for grid balancing. The development of a robust charging network for public and private use, coupled with revenue generation through charging fees, advertising, and partnerships, offers significant opportunities for charging infrastructure providers. Integrating charging stations into commercial properties can further enhance the accessibility and convenience of EV charging. Technology and software advancements, including the development of higher energy density, longer-lasting, and more affordable batteries, as well as the integration of self-driving capabilities and connected car services, can drive innovation and consumer adoption.Government policies play a crucial role in promoting EV adoption through incentives, regulations, and infrastructure development, leading to job creation and supporting the growth of the EV industry and related sectors.

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APPENDIX

Appendix A: Questionnaire

QUESTIONNAIRE

My name is Reyhan Irsyad Susano. I am an IPMI Bachelor's student in Business Administration and currently conducting research for my final assignment entitled "Effect of Perceived Quality, Perceived Usefulness, and Price Perception in Electric Vehicles."

For this reason, I request your willingness to spend around 5-10 minutes to fill out this research survey. There are no mistakes in the answers you give in this survey, so your honesty in answering the questions will greatly affect the results of this research. Your contribution to this survey is highly valued as it is essential in

fulfilling the requirement for completing my thesis to obtain a BBA degree at IPMI International Business School.

Thank you for your attention and availability in participating in this research.

Regards,
Reyhan Irsyad Susano

A. Screening

01. Do you have a driving SIM A

Apakah kamu mempunyai SIM A

Ya

Tidak (Silahkan berhenti disini, terima kasih telah berpartisipasi)

02 .Are you using electric vehicle

Apakah anda menggunakan kendaraan listrik

Ya

Tidak (Silahkan berhenti disini, terima kasih telah berpartisipasi)

03. Are you familiar with electric vehicle

Apakah kamu familiar dengan kendaraan listrik

Ya

Tidak (Silahkan berhenti disini, terima kasih telah berpartisipasi)

04. Are you domiciled in JABODETABEK

Apakah anda berdomisili di JABODETABEK

Ya

Tidak (silahkan berhenti disini, terima kasih telah berpartisipasi)

B. Respondent Profiles

01. Gender

Jenis kelamin

Laki

Perempuan

02. Age

Umur

18 - 25 Tahun

26 - 35 Tahun

 > 35 Tahun

03. Occupation

Pekerjaan

Mahasiswa

Pegawai Swasta

Pegawai Negeri

Wiraswasta

Lainnya

04. Monthly spending

Pengeluaran bulanan

8.000.000 - 15.000.000

15.000.000 - 20.000.000

20.000.000 - 25.000.000

>25.000.000

C. Questionnaire Content

The following are the questions that describe influencing factors of Electric Vehicle. You can pick strongly disagree to strongly agree that suits your choice

No	Question	Likert Scale				
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Perceived Quality (PQ)						
1.	Using an electric car every day can save you money on petrol. Menggunakan mobil listrik setiap hari dapat menghemat uang untuk bensin.					
2.	Using an electric car every day is					

	very comfortable and safe Menggunakan mobil listrik setiap hari memang sangat nyaman dan aman					
3.	Using an electric car every day can get energy efficiency Menggunakan mobil listrik setiap hari dapat menghasilkan efisiensi energi					
Perceived Usefulness (PU)						
1.	The car power that can be felt instantly. Tenaga mobil yang bisa					

	dirasakan secara instan.					
2.	Using an electric car every day is the right choice Menggunakan mobil listrik setiap hari adalah pilihan yang tepat					
3.	Using an electric car can be very friendly to the environment. Menggunakan mobil listrik bisa sangat ramah lingkungan.					
Price Perception (PP)						
1.	The amount paid is in line with the price of the electric					

| No.						
	car I buy. Jumlah yang dibayarkan sesuai dengan harga mobil listrik yang saya beli.	60				
2.	The features provided are in accordance with the price they provide. Fitur yang diberikan pun sesuai dengan harga yang diberikannya.					
3.	The price of electric vehicles today is quite affordable Harga kendaraan listrik saat ini cukup terjangkau					

Intention to Buy						
1.	I considered buying electric cars because of battery consumption Saya mempertimbangkan untuk membeli mobil listrik karena konsumsi baterai					
2.	I chose electric cars based on the benefits it offers. Saya memilih mobil listrik berdasarkan keunggulan yang ditawarkannya.					
3.	I believe electric cars offer good value for					

	money compared to similar gasoline vehicles. Saya yakin mobil listrik menawarkan nilai terbaik untuk uang dibandingkan dengan kendaraan berbahan bakar bensin serupa.					

Appendix B: Results of SmartPLS 4 Data Processing
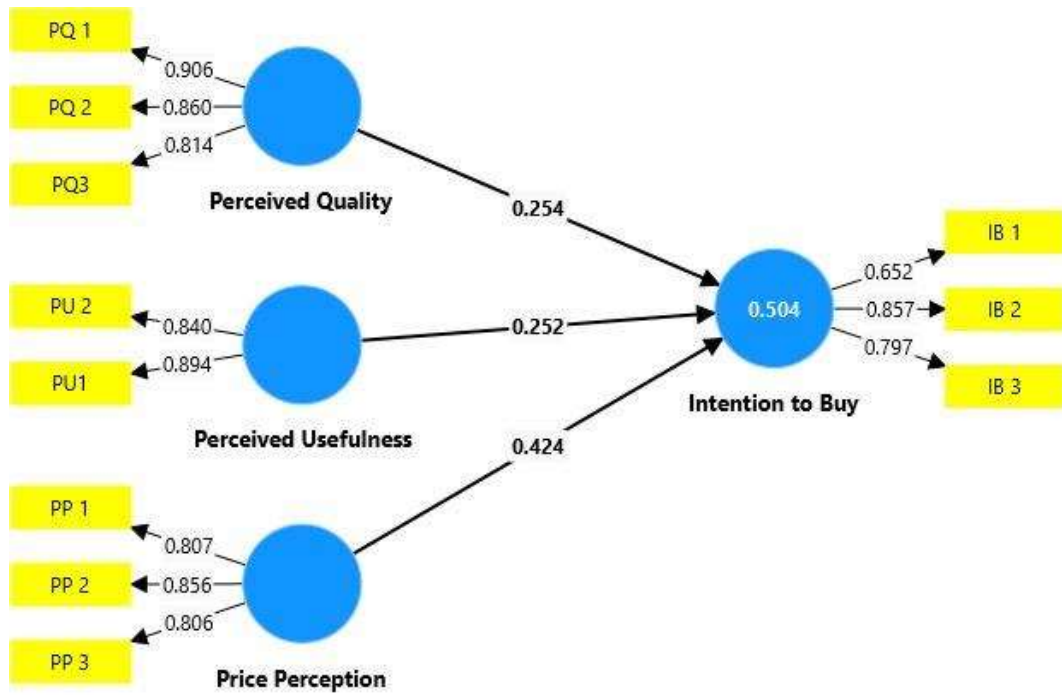
1. PLS – SEM Algorithm

R-Square & R-Square Adjusted
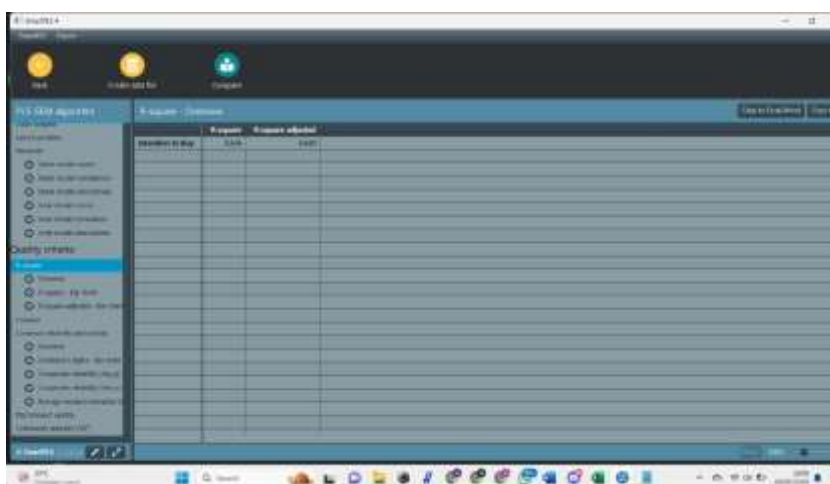
Reliability and Validity

Discriminant Validity

Outer Model

Inner Model