CHAPTER I

1.1 INTRODUCTION

In this 21st century electric cars have been the most discussed topic as the world eagerly looking for solutions to reduce carbon emissions in this modern era. Currently the world has faced climate change that has negative affects like drought, flood, wildfires and many more. In 2020 transport accounts for almost 24% of global carbon emissions that contribute to global warming, climate change and the quality of air (Ritchie, 2020). Based on the International Energy Agency's report, the transportations this include cars or vehicle will be projected to increase from 24% to 50% by 2030 (Dutta & Hwang, 2021). In 2020 road travel accounts for three quarters from the transport emissions where 45.1% comes from passenger vehicle like cars and buses, where the rest of road travel comes from trucks carrying freight that contribute almost 29.4% (Ritchie, 2020). This really shocks the world and push people to innovate and provide solutions to reduce this numbers. This where Electric Vehicle (EV) steps in, many people believe that EV may help reduce carbon emissions in more efficient way as it may be an alternative transportation or even a substitute for internal combustion engine transportation. As the technologies advancing each year EV getting more and more diverse and advance, it starts from hybrid electric system, than move to plug in hybrid electric vehicle (PHEV), and now we have a fully electric vehicle (FEV) that can travel long range and can be recharged from a green energy electric outlet around town (Dutta & Hwang, 2021).
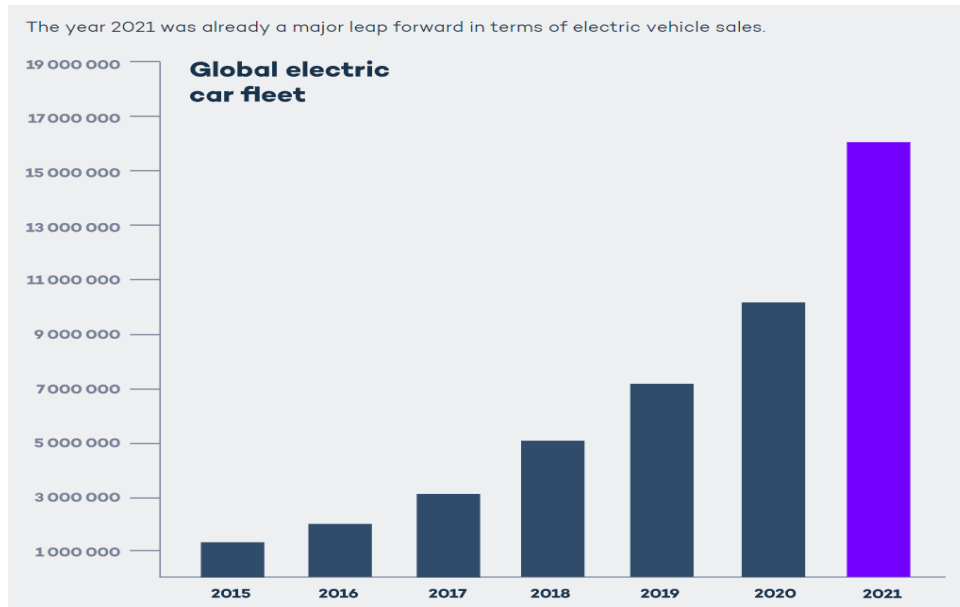
Figure 1.1. Electric Vehicle Sales Growth In The Past 5 Years

Source : EV Volumee & Glonan EV Outlook (2022)

According to Virta Global (VIRTA, 2022), Global sales for electric cars keeps on growing year on year and in 2021 it skyrockets because EV became famous, more reliable and it triggered into people's psychology because EV create value that makes them think that they contribute to clean energy. In this fast-moving world, electric vehicles are still not advance enough for some developing countries market niche as it can intervenes their conventional driving behavior, in order to adopt electric vehicles in the market government need to set up a mature and advance infrastructure so it can influence the individuals to adopt EV (Dutta & Hwang, 2021). As the reader can see, this is just one from a few problems that developing countries like Indonesia have to face in order to adopt a sustainable EV. To prove that EV becomes more and more appeal to individual here is the chart of EV trend in the world from Deloitte analysis (2020).
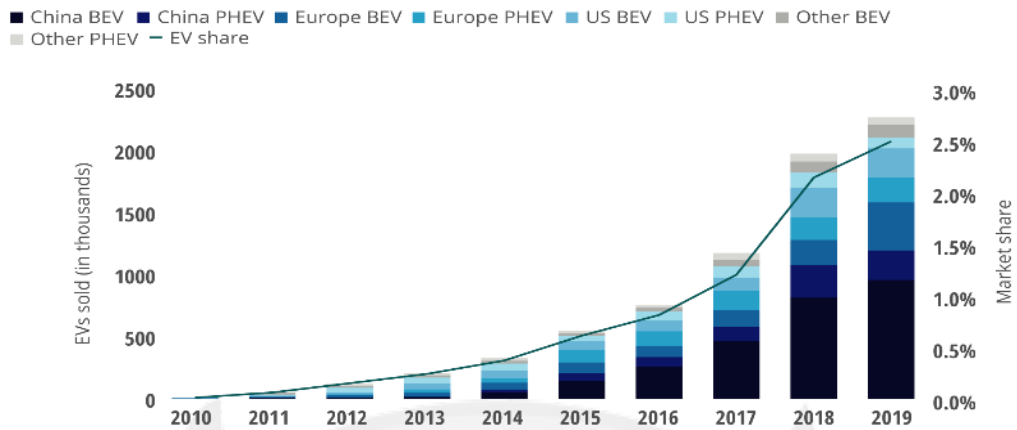
Figure 1.2. *Evs: Annual Passenger-Car And Light Duty Vehicle Sales In Major*

Regions Of The World

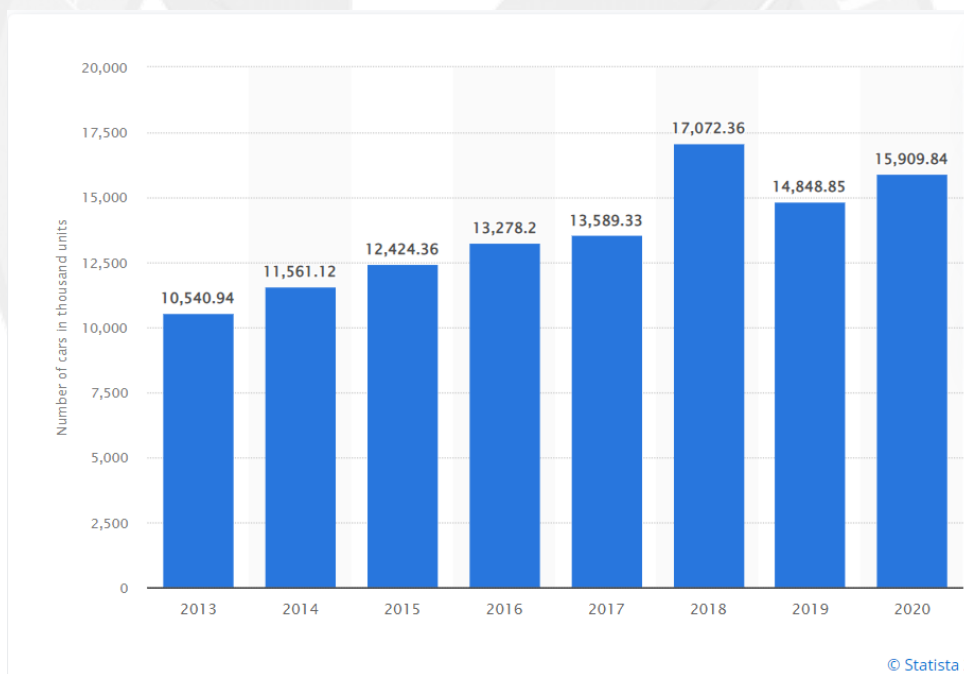Source : Deloitte Analysis, IHS Harkit, EV Volumes.com (2022)

Figure 1.3. *The Growth Of Indonesia's Automotive Industry.*

Source: Statista (2022)

According to Statista (2022) from 2013 to 2020 car industries have a steady growth except at 2018 where the sales tripled, this is why automotive

industry is really huge in Indonesia and it makes Indonesia becoming the largest automotive market in southeast Asia, therefore it brings a significant impact to Indonesia's economic growth as it plays a huge role for businesses (in logistic) and for individual daily productivity (from home to work, meeting client, etc). Indonesia needs to rapidly adapt to these changes as the world have shifting to electric vehicle, if Indonesia is incapable to quickly adapt it might be harmful for the automotive companies in Indonesia (Wicaksono & Aprianingsih, 2021).

In this paper, it would likely to see factors that driving people in Indonesia purchasing an electric vehicle especially in metropolitan area especially JABODETABEK area. Indonesia's government is aiming to produce or assemble locally at least 600 thousand units of electric car and 2.45 million units electric scooter by 2030, this indicates government dedication towards the environment and their people as they want to improve the quality of living. This will be a new and huge challenges for Indonesia's government as in reality until June 2022 according to (CNN INDONESIA, 2022), only 495 units of EV has been sold in Indonesia, that consist of Hyundai Ioniq 5 (395 Units), Ioniq EV (29 Units), Kona EV (20 Units), Genesis G80 (10 Units) and the rest comes from DFSK, Nissan, Toyota, and Lexus; This numbers clearly indicates that Indonesia is still way behind the time as people have not seen the benefit of owning an EV here in Indonesia, thus the government need to prepare the right infrastructure and giving out incentives in a short amount of time to support EV is not an easy job. On the other hand, according to (CNBC INDONESIA, 2022), Indonesia's governments are ready to implementing full EV in 2035 and ready to erase fossil fuel vehicle in order to attain net zero emission, then this will raise many questions, "will

Indonesia people willing to buy EV with the infrastructure that Indonesia currently have?", "What factors that drive people in purchasing EV", "How the customer reacts to the theory of planned behavior?" "Can people afford electric vehicle?". Moreover, in this research it will be focused on EV industry in Indonesia in general and comparing and analyzing what does Hyundai do in order to win consumers' heart in Indonesia to buy its product.

Table 1.1. *World Leading Electric Vehicle by Car Manufacturers*

2022		
BRAND	RANK	BEV UNITS SOLD WOLRD WIDE
TESLA	1	1.04 Millions
VOLKSWAGEN	2	709,030
China's BYD	3	595,089
GENERAL MOTORS	4	515,584
HYUNDAI MOTOR GROUP (HYUNDAI & KIA)	5	348,783

Source : Capital.com (2022)

As shown in (Table 1) these two global automakers have successfully strengthened their electrification portfolio by competing with the world's largest automakers, and meeting the current high demand for eco-friendly vehicles, which saw their growth accelerated from 8.7% in 2019 to 55.1 % in 2020. Elon musk's quote that goes, "Hyundai "does pretty well" in June, this is unlikely to pose a serious competitive threat to Tesla", like Apple and Samsung did in 2010 -an that the pace of market change is accelerating (June, 2022).

Attitude refers to the degree to which an individual has a desirable or undesirable appraisal or assessment of the behaviour. Two subcomponents, namely affective and instrumental, are included in the idea of attitude. In this regard, the subcomponent of affect is viewed in terms of how people evaluate

themselves, specifically their propensity or desire for a particular behavior. In contrast, the instrumental subcomponent of attitude pertains to people's assessments of whether a particular behavior is perceived to be helpful or harmful. The preferences that automobile owners have when it comes to the deployment of hybrid vehicles are significant and may impact how they feel about the behavior (Alzahrani et al., 2019).

The subjective norm construct is composed of injunctive and descriptive characteristics. Injunctive subjective norm refers to people's judgements or beliefs about whether their social circles expect them to act in a particular way or the opposite. While individuals' assessments of whether or not a particular behavior is practiced by their social circles are used to determine the descriptive subjective standard. When individuals believe that their social circle or those in their immediate surroundings are moving toward decarbonizing the transportation system through the use of environmentally friendly cars, they are more likely to "perform that behavior" in the context of their plan to purchase hybrid vehicles. When those around them exchange ideas and thoughts, the impact may be initiated or manifest itself. Social influence is not just confined to familial relationships; it can also come from friends, public figures (such as celebrities), and other respected individuals (Lim et al., 2019).

Perceived behavioural control is the perception of people pertaining to the degree of either ease or dificulty in performing the behaviour of interest. Self-eficacy and controllability are the two components that make up perceived behavioral control. Self-efficacy is the ability to judge how easy or difficult an action is to accomplish, whereas controllability is the ability to completely control

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a behavior. Perceived behavioral control pertains to whether people are thought to be financially capable of purchasing hybrid cars as well as the accessibility of other external resources (such as government tax exemption and purchasing rebate) in the context of the intention to buy hybrid cars (Adnan et al., 2017).

According to Rodhiah (2021) purchase intention is a consumer's mental statement that reflects plans to purchase a product with a certain brand. Purchase intention can be defined as the possibility that consumers will buy a product or service in the future. Positive purchase intention pushes the consumer to actual purchase action or negatively results in purchase intention holding the consumer from buying the product or service and vice versa. An increase in purchase intention means an increase in the possibility of purchase. In general, purchase intention is carried out by consumers after receiving external information (Liu & Wang, 2019).

1.2 Research Problem

As stated above, Indonesia's infrastructure from public transportation, pedestrian and cycling area are good but not good enough, these leads people must have cars as it is their daily necessity to move around and even to travel within city. EV manufacturers need to focus on continuous technological innovation to stay competitive. This includes advancements in battery technology, charging infrastructure, electric drivetrains, and autonomous driving features. R&D investments should be prioritized to improve vehicle performance, range, efficiency, and safety.

1.3. Research Questions

This will be the research questions below:

- Does Subjective Norms have a positive influence towards Purchase Intention in buying electric vehicle in Jabodetabek?

- Does Environmental Attitude have a positive influence towards Purchase Intention in buying electric vehicle in Jabodetabek?

- Does Perceived Behavioral Control have a positive influence towards Purchase Intention in buying electric vehicle in Jabodetabek?

1.4. Research Objectives

These are the study's goals, which are based on the aforementioned research query:

- Examining if there is positive relationship between Subjective Norms towards Purchase Intention in buying electric vehicle.

- Examining if there is positive relationship between Environmental Attitude towards Purchase Intention in buying electric vehicle.

- Examining if there is positive relationship between Perceived Behavioral Control towards Purchase Intention in buying electric vehicle.

1.5. Research Benefits

The results of this study are expected to provide benefits both theoretically and practically for various parties.

1.5.1 Theoretical Benefits

One of the benefits that can be generated from this research from a theoretical perspective is to become a source of literature that can help future researchers to understand more about the variables Subjective Norms, Environmental Attitude, Perceived Behavioral Control and Purchase Intention.

1.5.2 Practical Benefits

Researchers have hope that the results of this study can be information/input to Pelita Harapan University students to determine Purchase Intention.

1.6. Research Outline

Research Systematics conducted by researchers is divided into 5 chapters namely:

Chapter I Introduction

The introductory chapter provides a general explanation of the research background, problem formulation, research objectives, theoretical & practical research benefits and a systematic research outline of the topic chosen by the researcher.

Chapter II Literature Review

The Literature Review chapter covers theories from previous research in more detail than all independent and dependent variables, hypotheses and research models.

Chapter III Research Methods

The Research Methods chapter contains research objects, units of analysis, types of research, operationalization of research variables, population & research samples, data collection techniques, and research instrument tests.

Chapter IV Results and Discussion

Results and Discussion Chapter presents a statistical summary of the data processing that has been collected. These results are used to answer questions from the formulation of the problem owned by the researcher.

Chapter V Conclusions and Suggestions

Chapter Conclusions and Suggestions is the conclusion of the research which consists of conclusions from the results of the research, managerial implications, and limitations as well as suggestions that are expected to help further research.