

STRATEGIC MANAGEMENT IN CAR OWNERSHIP AND CAR PURCHASE DECISION IN JAKARTA. A CASE STUDY OF PT XYZ

Daryn Darwan

Business Administration and Humanities Student
Swiss German University
Tangerang, Indonesia
daryn.darwan@student.sgu.ac.id

Izhari Mawardi, B.Eng., S.AP, MPP, Advisor

Faculty of Business Administration and Humanities
Swiss German University
Tangerang, Indonesia
izhari.mawardi@lecturer.sgu.ac.id

ABSTRACT

The automotive industry is one of the most lucrative market in Jakarta, Indonesia. There are opportunities coming from the low car density, a growing number of middle class and the first-time buyers in Jakarta. On the other hand, there are also challenges car manufactures face that could curtail car sales such as, the presence new public transport, the increase on vehicle tax, and the existence of online taxis. Currently, studies related to car ownership motivation according to the future generation of buyer are still limited. Therefore, this study examined the significance between car ownership deterrents, car ownership motivation, and car purchase decision. This study also analysed the preference of cars according to young people, being the future generation in Jakarta.

The final objective was to provide PTXYZ a selection of strategies to anticipate such phenomena. The methodology used was Structural Equation Modelling. The result revealed that car ownership motivation and car purchase decision were significantly correlated, while car ownership motivation and car ownership deterrents showed otherwise. Car attributes such as safety, performance, and convenience were considered as the most important criteria according to young people. The managerial implication for PT XYZ is to consider market penetration, market development, and product development.

Keywords— Car ownership motivation, Car ownership deterrents, Car purchase decision, Structural Equation Modelling, Strategic Management

I. INTRODUCTION

I.1. BACKGROUND

Car ownership is an essential factor for the urban dwellers. As the GDP increases, people are more encouraged to purchase an expensive need, such as car (Tanner, 1978). Many motorcycle owners are also converting to four-wheeled vehicles. This phenomenon happens in many developing countries in Southeast-Asia, including Indonesia.

Data from Gaikindo (2017) showed that apart from the global economic crisis in 2009, Indonesia is a lucrative market for automotive industry. In 2016, there were 1.10 millions of cars sold in the country. In addition, the new growing working-age population of 21 million people (Scherer, et al., 2016) become one of the driving forces of the current demand of private cars.

Furthermore, the low car density level also makes Indonesia a lucrative market according to global automotive brands to expand the business in the country (Jody, 2016). As in 2016, there are only 70 motor vehicles per 1,000 inhabitants in Indonesia (Nangoi, 2016). This number is

remarkably low for Indonesia (rank #124), compared to Singapore (#90), Thailand (#69), and Malaysia (#47).

Despite the opportunities from low car density and the growing demand from middle class and first time buyers, there are some challenges that car manufacturers could face in the future. In Jakarta, the capital city of Indonesia, heavy traffic congestion urges the local administrator to shift the commuters from private cars into using public transportation, such as *Transjakarta*, Commuter-Line (PT KAI), and Mass Rapid Transport (MRT) that will become fully integrated in 2018. Nevertheless, the proportion of commuters using public transport dropped from 35.5% in 2002 to 12.9% in 2010 (Sumaedi, et al., 2014), due to the slow development, access difficulty, and often overcrowded carriage.

The other threat comes electronic ride-hailing applications. According to Kaas, et al (2016) and Liem (2015), consumers today wish for more flexibility in selecting the best choice for a specific journey that can be requested via their smartphones in real time. This new business model provides a competitive value for car manufacturers, as e-hailing app users are no longer burdened by the common expenses of private cars, such as vehicle taxations and parking fees.

Moreover, there is a trend that comes from the young commuter (aged 16 to 24 years old). Kaas, et al. (2016) predicts that there will be a change in mobility choice by young people, where car ownership is declining and car sharing is growing. This trend has started in more developed countries such as North America and Germany. It is predicted that by 2030, one out of ten new cars sold may be likely to be a shared car.

Another challenge comes from a limited range of cars offered car manufacturers in Indonesia. A study by J.D. Power (2016) reveals that many potential buyers are experiencing frustration because of a small selection of models readily offered by the car manufacturers that satisfy their needs. Moreover, smaller players have aggressively invested in cars customisation for Indonesia market in 2014 and this is starting to get results as it gains market share from its top rivals. In addition, other competitors had recruited local design engineers to create interior and exterior attributes that reflect on Indonesian preference (Wijeratne & Lau, 2015).

This study aims to analyse the car ownership motivation and car purchase decision according to young people in Jakarta and surrounding cities. As the future car buyers, understanding their buying behaviour and preference of cars is important for any car manufacturers in order to optimise the presence in the market.

I.2. RESEARCH PROBLEM

There are some opportunities such as low car density and growing demand of private cars from middle class and first-time buyers in Indonesia, and threats such as the presence of new public transportations, and e-hailing applications. In addition, there has been a frustration of Indonesian consumer because of the small selection of cars offered in the market.

Understanding the challenges and utilising the potentials are critical, in order to optimise the market position. In addition, assessing car buying behaviour and preferences according to young people is beneficial as they are the next generation of buyers. This study uses PT XYZ as the case study. As one of the market leaders in Indonesia, PT XYZ needs a suitable strategy to anticipate the aforementioned issues in order to maintain its position in the industry.

I.3. RESEARCH OBJECTIVES

There are several objectives of this research:

1. To analyse the motivation of a car ownership in Jakarta, according to young people aged 17 to 30 years old.
2. To analyse the preference of a car for young people in Jakarta.
3. To examine whether a car ownership deterrents affect car ownership motivation.
4. To examine whether a car ownership motivation affects the purchase decision of car.
5. To develop the most suitable strategic planning for PT XYZ.

II. LITERATURE REVIEW

This study, the variables analysed are car ownership motivation, car ownership deterrents, and car purchase decision.

II.1. CAR OWNERSHIP MOTIVATION

Steg (2005) examined the motives of car ownership and classified it into three factors: symbolic/affective, instrumental (functional), and independence. Furthermore, Van and Fujii (2011) added a new dimension of social orderliness as the determinant for car ownership motivations. In addition, Belgiawan, et al. (2014) stated that car ownership levels are rising remarkably in many developing nations due to the improvement of income status and GDP. It is important to see the motivation of car ownership into the preference of a buyer in purchasing a car.

Cullinane (2002), focused her research on young people from several universities in Hong Kong and discovered the correlation between car ownership variables and income level per household. This study also included some other indicators that in extent could motivate people in owning their own car. The factors are the attitude towards traffic condition, the degree of wanting a car, and gender differences. Additionally, Matas and Raymond (2008) added that besides income, quality of public transport, employment model, number of cars per household plays a significant role in influencing the motivation.

Measuring the motivations of car ownership can be more complex as there are not only social, but also psychological factors involved (Shende, 2014). If the gesture toward a certain mode of transport is positive, it will result in a higher utilisation of the chosen mode. In other words, the mode choice depends on the attitude toward travel mode (Van Acker, 2010).

The concept of car ownership motivation as constructed by Steg (2005), Van & Fujii (2011), and Belgiawan, Schöcker, & Fujii, (2012) are further explained below:

- **Symbolic/affective**
The affective aspect examines the emotions evoked from driving a car, such as feelings of sensation, power, superiority, and thrill. Whereas, the symbolic aspect is related to pride and status of ownership and driving. Moreover, symbolic and affective values are determined by individual behavioural beliefs and social norms (Zhu, et al., 2012). Cars are made to appeal to people's desire for control (Gardner & Abraham, 2007), power, social status, and self-esteem. Affective and symbolic values are drawn to make contrast from instrumental value, that are more objectively measurable.
- **Instrumental/functional**
This motive discusses the fundamental use of a car as mode of transportation. It mainly focuses on the apparent functionalities of car itself, such as mobility channel, speed,

flexibility, and convenience (Steg, 2005). One may own cars because they concern on personal space and want to minimise the physical and physiological effort (Gardner & Abraham, 2007) in commuting.

- **Independence**
Cars allow people to travel anytime and anywhere (Steg, 2005), to gain freedom, as well as to help save time to travel (Hagman, 2003). Therefore, they become more independent. This reasons are valued by car users and one of the motivator for their eventual purchase of a car (Belgiawan, Schmöcker, & Fujii, 2012). Despite having the instrumental aspect, independence differs from a time variable point of view.
- **Social Orderliness**
This motive comes from the social peers and neighbours that influence people in their attitude towards car ownership. The choice of transportation mode in the past also influences their current preference of car ownership (Goetzke & Weinberger, 2010).

II.2. CAR OWNERSHIP DETERRENTS

There are some other factors that could deter the motivation to drive, such as the rise of taxation of cars and fuel by the policy makers (Gärling, et al., 2002), commuters' characteristic and lifestyle, type of trip, and the impression on public transport (Beirão, 2007). The increase of congestions, parking cost, and the limited parking areas within urban neighbourhood, may also discourage car use (De Vos, Derudder, et al., 2012).

However, Belgiawan, et al. (2012) further discussed that the presence of public transport may not significantly hinder the car purchase decision. Although the public transport is developed and improved, it is not going to make private car users exclusively shift their mode of travel from driving their own car to using public transport (Jensen, 1999). Private car users may have established strong connection and emotional attachment towards their own car (Redman, et al., 2013).

This statement has been confirmed by a more recent study of Gatersleben (2011) who stated that major improvements and investments of public transport infrastructure are not likely to change positive perception towards car, especially when the car is regarded as a social symbol of status and success.

II.3. CAR PURCHASE DECISION

Purchasing a car is regarded as a subjective decision that reflects on the customer preference itself. These different levels of important criteria make a constant change in consumer demands and product life cycle shorter (Byun, 2001). Car manufacturers should be able to understand the purchase decision of customer and offer them positive driving experience (Deloitte, 2009). If the customers are satisfied with the car quality, they are expected to repeat the purchase of a car again in the future.

Purchase decision itself is constructed from the behaviour and later influenced by the attitude towards things (Ajzen, 1991). Often times, researches focus primarily on sociodemographic characteristics of consumers (Choo & Mokhtarian, 2004). However, cars may also represent symbol of modern life, passion, independence, and control. Consumers may look for the car model that represent these value (Jensen, 1999). Therefore, understanding current attitudes

towards car become one of the crucial factors explaining future purchases (Belgiawan P. F., et al., 2014).

In addition, it was previously confirmed that attributes, such as attitudinal aspects, beliefs, and motives, are applicable predictors of car purchase decision, especially regarding the fuel-efficiency choices (Peters, et al., 2011). The inclusion of attitude study in understanding purchase decision could determine the future models of car that reflects on consumer's lifestyle, personality, and travel behaviour (Choo & Mokhtarian, 2004).

Car purchase decisions have several criteria that have been identified by relevant previous studies (Table 1):

Table 1: Indicators of Car Purchase Decision

Indicators	Description	Sub criteria
Price	Price is often perceived as the determinant indicator on consumer's brand preference when choosing a product or service (Lee & Govindan, 2014). First time buyer, in particular, is sensitive to purchase price and lifetime value (Deloitte, 2009).	1. Purchase price 2. Maintenance cost 3. Resale value
Exterior	Car designs may reflect on customer lifestyle (Asami, et al., 2011).	1. Car design 2. Model 3. Colour choice
Reliability	Reliability is closely related to quality. Consumers will consider the perceived quality of a vehicle before they purchase a car (Woods, 2010).	1. New technology & innovation 2. Spare parts availability
Convenience	A personal customer preference that relates to the comfort in driving, value for money, and the interior design (Shende, 2014).	1. Ease to operate 2. Internal space utilisation
Performance	Exceptional car brands incline to offer a balance of sporty and fuel-efficient cars. Thus performance has developed to mean beyond the raw performance (Consumer Report 2014)	1. Powerful engine 2. Low emission 3. Durability 4. Fuel efficiency
Safety	Consumers are willing to pay more for features and options that will increase the safety of their cars (Deloitte, 2009)	1. Quality & quantity of airbags 2. ABS 3. Car body firmness
After-Sales Service	Automotive industry is associated with tangible goods - automobiles, however it is also accompanied by service to increase the appeal of the products (Kotler, 1997).	1. Insurance service 2. Warranty

Source: Byun (2001), Gupta (2013), and Zhang & Zhang (2015)

II.4. STRATEGIC PLANNING

David & David (2015) defined strategic planning as an initial stage in strategic management, before strategic implementation and strategic evaluation. In this stage, critical internal factors, significant environmental elements, as well as vision and mission are reviewed (Fazayeli, 2012). Strategic management require "choices that risk resources" and "trade-offs that sacrifice opportunity" (Hansen & Smith, 2003). Thus, the purpose of strategic planning is to set priorities

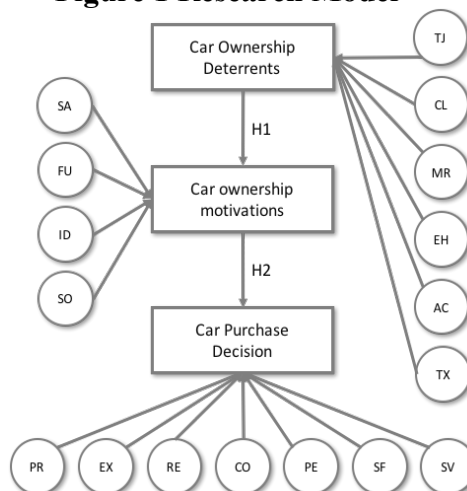
and resources; strengthen operations; align employees and other stakeholders toward goals, and adjust the organisation in a changing situation (Banihashemi & Rejaei, 2016).

According to David & David (2015), there are three strategies that are suitably used when the market growth is rapid and the competitive position is strong. These strategies are sometimes referred as intensive strategies, which consist of market penetration, market development, and product development. Intensive strategies outline firm's concentration whether on current markets (market penetration and market development) or on products (product development). In addition, these strategies allow firms to take advantage of external opportunities in several areas, as well as to take risk intensively when necessary.

- Market Penetration**
 David and David (2015) defined market penetration as a strategy to gain higher market share of the existing products in the present market. This is the simplest and first choice for growth in most of businesses, as they are already in the market with a current product and attempt to increase the sales without abandoning original product market strategy in order to compete with rivals in the market (Ansoff H. I., 1957). The goal of this strategy is to capture a substantial share of the present market (Wainaina & Oloko, 2015).
- Market Development**
 David and David (2015) explained the definition of market development strategy is to introduce existing products into new geographical zones. When companies become mature in current market, there is a necessity to find new markets for their present products. Therefore, market development strategy is used to enhance the current position of income by marketing the existing product variety in a new market (Ansoff H. I., 1957).
- Product Development**
 Bhuiyan (2011) described product development as essential business decision to introduce new products on the market for striving the success of business. Product development strategy is a time sensitive process that needs extensive financial and human resource. This type of strategy plays part on influencing the profitability of the company and boosting market share in comparison to competitors (Ansoff H. I., 1957), especially when the existing product offering begins to decline in present market segment (Hussain, 2013).

II.5. RESEARCH MODEL

Figure 1 Research Model



Source: Author (2017)

- H1: Car ownership deterrents affect Car ownership motivation
- H2: Car ownership motivation affects car purchase decision

III.METHODOLOGY

III.1. RESPONDENTS

Jakarta has a population of around 12.7 million people (Pemprov DKI, 2014). A survey was limited to young people who are based in Jakarta and surrounding cities, aged between 17 – 30 years old. The respondents may or may not have cars of any brands. Further, this study used sampling method of Hair, et al. (2010). In total, 152 complete surveys were obtained.

Likert scale were used on the all three variables. On variable Car Ownership Motivation and Deterrents, the respondent should choose their designated answers on the scale of: Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), and Strongly Agree (5). For measuring the level of importance in criteria affecting Car Purchase Decision, the ratings are: Very unimportant (1), Unimportant (2), Neutral (3), Important (4), and Very Important (5).

In addition, an in-depth interview was also conducted at the Marketing Planning division of PT XYZ. The purpose of this interview is to generate a suitable strategic planning by discussing the results of survey with the representatives of PT XYZ. The interview will also help cross reference some of the information from analysis against interpretation of such finding. The results from the aforementioned activities were used as the primary data of this study.

III.2. TYPE OF STUDY

The research methodology of this research is descriptive and quantitative-qualitative. Descriptive study focuses on the attempt to explain phenomena and characterises a target population. By collecting data and tabulating frequencies of research variables, this method aims to evaluate correlations between different set of variables (Cooper & Schindler, 2014).

Furthermore, quantitative approach enables the research to be objective in data measurement, through detailed statistical data, thus providing depth and preventing bias (Cooper & Schindler, 2014). Moreover, the presence of qualitative research enriches the quality of research, as qualitative discoveries are supported by quantitative data.

III.3. DATA ANALYSIS TECHNIQUES

This study used correlation analysis as variables car ownership deterrents, car ownership motivation, and car purchase decision are continuous and linearly related. The correlation of independent variable and independent variable produces an estimate of linear association based on sampling data. The data collected was interpreted and analysed using statistical analysis software, IBM Statistical Package for Social Sciences (SPSS) and SPSS Amos (for the structural equation modelling).

III.4. GOODNESS OF FIT CRITERIA

The assessment of analysed variables by means of the structural equation modelling yielded the following Goodness-of-Fit statistics: CMN/df = 1.706; RMSEA = 0.0068; GFI = 0.876, AGFI = 0.829; TLI = 0.878; CFI= 0.900; and Reliability = 0.854.

IV. RESULTS AND DISCUSSION

IV.1. RESPONDENT PROFILE

The majority of respondents from the survey are male (57%), based in Jakarta, aged between 20 to 22 years old. The average spending on transportation per week were between IDR 151,000 to IDR 350,000 (around USD 11¹ to USD 26).

IV.2. ATTITUDE TOWARDS CAR OWNERSHIP

Nearly half of the respondents had an immediate desire to own a car. While over 40% replied that buying a car was not a priority for them. There is also a low percentage of 8% of the respondents who had no intention of buying a car in the next 5-10 years. The results indicate that young people in Jakarta and surrounding cities still view cars as a possession that they sought to have in the future.

IV.3. CAR MODEL PREFERENCE

Young people also had a different set of priorities and preferences when it comes to car purchase decision (Table 2).

Table 2: Car Model Preference

Car Type	Car Engine	Cylinder Capacity	Price Range, (in Million - IDR)	Purchase Decision Criteria
Hatchback (23%)	Petrol (67%)	1500cc to 2500cc (76%)	151 – 300 (59%)	(Most) Purchase price, Fuel efficiency, Ease to drive; (Least) New technology & innovation, Brand reputation, Resale value
Sedan (24%)	Petrol (68%)	1500cc to 2500cc (70%)	151 – 300 (51%)	(Most) Durability, Body firmness, Car design, Insurance; (Least) Brand reputation, Colour choice, Resale value
SUV (32%)	Petrol (51%)	2500cc to 3000cc (45%)	301 – 450 (41%)	(Most) Durability, Fuel efficiency, Ease to drive; (Least) Low Emission, Resale value, Colour Choice
MPV (21%)	Petrol (50%)	1500cc to 2500cc (56%)	151 – 300 (56%)	(Most) Fuel efficiency, Purchase price, Durability; (Least) New technology & innovation, Brand reputation, Resale value

Source: Survey Results (2017)

The result shows that 32% of young people in Jakarta and surrounding cities favour SUV (Sport Utility Vehicle) model. However, smaller cars (Sedan and Hatchback combined) take a larger proportion than SUV. This result is in line with the study conducted by Choo & Mokhtarian (2004) which stated that people who live in areas with dense population would prefer smaller vehicle, such as Sedan and Hatchbacks and expensive vehicle, such as SUVs. Young people would prefer smaller cars because of it allows them to manoeuvre easily in heavy traffic and gives them flexibility in parking. On the other hand, those who chose SUV may have already higher income or better income expectation. Therefore, they would be more confident in choosing more expensive cars like SUVs.

¹ USD 1 = IDR 13,500

IV.4. SIGNIFICANCE LEVEL OF DATA

Table 3 shows the regression weight table that is required to determine the level of significance of influence within the statistical model. It is stated that a relationship to be considered significant if the p-value is less than 0.05. The indication of three asterisks (***) symbol shows the greatest extent which is an absolute value less than 0.001.

Table 3: P-Value (Regression Weights) and Coefficient Table

Variable – Indicators	P-value	Coefficient Correlation
Car Ownership Motivation <--- Car Ownership Deterrents	.648	-0.05
Car Purchase Decision <--- Car Ownership Deterrents	.002	0.37
<i>Transjakarta</i> <--- Car Ownership Deterrents		0.71
MRT <--- Car Ownership Deterrents	***	0.81
Commuter Line <--- Car Ownership Deterrents	***	0.68
E-hailing App <--- Car Ownership Deterrents	***	0.42
Additional Cost <--- Car Ownership Deterrents	***	0.34
Vehicle Tax <--- Car Ownership Deterrents	.005	0.26
Symbolic Affective <--- Car Ownership Motivation		0.45
Instrumental Functional <--- Car Ownership Motivation	***	0.87
Independence <--- Car Ownership Motivation	***	0.80
Social Orderliness <--- Car Ownership Motivation	***	0.50
Reliability <--- Car Purchase Decision		0.59
Price <--- Car Purchase Decision	***	0.53
Exterior <--- Car Purchase Decision	***	0.53
Performance <--- Car Purchase Decision	***	0.68
Convenience <--- Car Purchase Decision	***	0.60
Safety <--- Car Purchase Decision	***	0.81
After-Sales Service <--- Car Purchase Decision	***	0.57

p-value significant at < 0.05; *** *p* < 0.001

0.00 – 0.19 = very weak correlation; 0.20 – 0.39 = weak correlation; 0.40 – 0.59 = moderate correlation; 0.60 – 0.79 = strong correlation; 0.80 – 1.00 = very strong correlation

Source: Amos Results (2017)

IV.5. CAR OWNERSHIP DETERRENTS TOWARDS CAR OWNERSHIP MOTIVATION

Car Ownership Deterrents has a low correlation with Car Ownership Motivations at a coefficient of -0.05 and has negative low significant relationships at a p-value of 0.648 (Table 3). Therefore, the hypothesis result is rejected. This shows a similarity with previous studies which conclude that the presence of public transport will not exclusively shift people from using personal car to public transport (Jensen, 1999; Gatersleben, 2011; Redman, et al., 2013). The motivation of car ownership is evoked by the feeling of attachment, status, the sense of control, independence when young people drive private cars, as well as the pressure from the society. This kind of motivation is difficult to imitated by the public transport.

IV.6. CAR OWNERSHIP MOTIVATION TOWARDS CAR PURCHASE DECISION

Car Ownership Motivation has a coefficient of 0.37 with a p-value of 0.002 which means that it has a low correlation but positive high level of significance (Table 3). Thus, the hypothesis is accepted. The previous studies show that there is a correlation and significant relationship

between the two variables (Bergstad, et al., 2011; Belgiawan, et al., 2012; Peters, et al., 2015). This indicates that psychological motivation on car ownership may affect the car purchase decision. If Symbolic-Affective motive is higher, the user would choose the car that reflects their personality and style. Whereas, if Instrumental-Functional motive is higher, the user would choose the car that could fulfil their needs or requirement.

IV.7. CAR OWNERSHIP DETERRENTS TOWARDS INDICATORS

Transjakarta and Commuter Line have the coefficient of 0.71 and 0.80, respectively and p-value of *** (Table 3). Therefore, it has a very strong correlation with Car Ownership Deterrents and high level of significance. The current *Transjakarta* that has been operating for the more than ten years still have some major issues, especially on the punctuality of the schedule and the number of bus fleet. Furthermore, although Commuter Line could provide time efficiency and more comfort for the commuters compared to *Transjakarta*, this mode of transport is only available at some major train station in Jakarta. As a result, commuters still need to change the mode of transport if they want to reach the destination. This seems to be the reason why the majority of young people still view private cars as the best and most convenience mode of transportation for them.

MRT has a coefficient of 0.68 with a p-value of *** (Table 3), which means that it has a strong correlation and high level of significance. Although this mode of transportation is not yet in effect until 2018, MRT is expected to be a considerable reason why young people would delay the purchase of cars in the future. The route of MRT in Jakarta will cover areas with the highest traffic. Therefore, by using this mode of transportation, young people could save more time, effort, and money while travelling in this area. This result indicates that there should be a strategy for car manufacturers to optimise sales in areas where MRT is not present.

E-hailing app has a coefficient of 0.42 with a p-value of *** (Table 3), which means that it has a moderate correlation, but has a high level of significance. According to young people, the presence of online taxi would have an impact on their intention to buy a car. This mode of transport allows the users to hail a car or taxi via the application on their phones. Online taxi also offers more privacy, comfort, and flexibility of travelling, compared to bus or train. Furthermore, there are still some advantages of online taxi such as the much more expensive fare and the possibility of bad experience with the driver, whereas private car gives a sense of safety and control throughout the driving experience. Due to this comparable positive features between online taxi and private cars, young people tend to see online taxi as the significant factor to delay the purchase decision of car.

Additional cost such as parking fee and fuel expenses has a coefficient of 0.34 with a p-value of *** (Table 3). Whereas, the rising amount of vehicle tax has a coefficient of .26 with a p-value of .005 (Table 3). Both of factors have a weak correlation towards car ownership deterrents, but it still has a high level significance. The additional cost asked was related to the parking fee, fuel cost, and the future presence of Electronic Road Pricing (ERP). This result was further confirmed from the interview with the Marketing Planning Division of PT XYZ that a slight increase of vehicle tax could delay one's purchase intention. Customer might purchase from other location that has lower vehicle tax policy.

IV.8. CAR OWNERSHIP MOTIVATION TOWARDS INDICATORS

Symbolic Affective has a coefficient of 0.45 (Table 3). Therefore, it has a moderate correlation with Car Ownership Motivation. This indicator is constructed by four attitudinal questions based on the previous studies. Symbolic Affective criterion is related to the psychological attachment

and dependence of car users on their car. Although the degree of significance is high, it shows that young people in Jakarta and cities are less emotionally attached to their cars. They tend to be neutral-to-positive on questions such as a car provide status and prestige, cars are cool and trendy, and cars bring happiness. Furthermore, they were incline to agree less on a negative statement, such as cars bring an arrogant impression.

Instrumental Functional has a coefficient of 0.87 and p-value of ***, which means that it has a very strong correlation and high degree of significance (Table 3). This indicator was present to make a clear distinction from symbolic affective, which is more related the psychological values. As a result, it is similar to the previous studies with the conclusion that people would prefer to have a car largely because of it fundamental purpose of vehicles, which is mobility. Young people in Jakarta and surrounding cities tend to agree that they would own a car mostly because the benefits that a private car provide such as safety, comfort, and convenience.

Independence has a coefficient of 0.80 with a p-value of *** which means it has a very strong correlation and high degree of significance (Table 3). The result indicates that independence a car can bring becomes one of the most influential factors why young people were motivated to purchase one. This results are supported by the fact that public transports in Jakarta and surrounding cities are still mostly inadequate to facilitate commuter's travel need. By owning a car, young people were allowed to travel anytime and anywhere. Therefore, cars give them a sense of freedom and independence.

Social Orderliness has a coefficient of 0.50 with a p-value of ***, which means that it has a moderate correlation and high degree of significance (Table 3). Based on the answers, young people tend to disagree with the statements such as cars would make people think more of them, and people without cars would suffer more because modern life favours people with cars. These answers seem to be in line with Symbolic Affective, where cars are no longer viewed as a symbol of status and modern life.

On the other hand, statements that represents the societal pressure would motivate young people to own a car, were give more neutral to very positive answers. For example, cars should be able to accommodate their nuclear family and cars would allow one to care about others. Both statements show that young people viewed cars as a way to improve their daily activities. Therefore, they would prioritise the functionality of cars that allows them to see other people or travel with family when they intended to purchase a car.

IV.9. CAR PURCHASE DECISION TOWARDS INDICATORS

Price has a coefficient of 0.53 with a p-value of ***, which means that it has a moderate correlation and high level of significance (Table 3). The value indicates that price according to young people does not pose as the most important parameter when they buy a new car. Although young people did score purchase price and maintenance cost with very positive average rating and resale value with more neutral rating, the overall parameter does not give a high correlation to purchase decision. The result might be influenced by the fact that most of the respondents were university students and still dependent to their parents or do not have their own income yet. Therefore, young people might not be price conscious enough.

Exterior Features has a coefficient of 0.53 with a p-value of ***, which means that it has a moderate correlation and high level of significance. The result shows a similar score like price parameters, where external features do not become the most important indicator when young people purchase a new car. Their answers on this parameter draws a connection to the Car

Ownership Motivation variable, in which cars were not deeply perceived with Symbolic Affective parameter, but Instrumental Functional parameter. Although young people did give positive scores for car design and model/variants and more neutral score to colour choices. However, it seems that it does not really care of which type of car they drive. Since what matters the most is its functionality.

Performance has a coefficient of 0.68 with a p-value of ***, which means that it has a strong correlation and high level of significance (Table 3). Each of the factors was scored very positively and even placed as one of the most important aspects when young people purchase a new car – the durability and fuel efficiency. While powerful engine and low emission were scored slightly below the positive rating. Again, this result did prove that Instrumental Functional parameter plays an influential role in purchase decision according to young people.

Reliability has a coefficient of 0.59, which means that it has a moderate correlation (Table 3). Among the criterion of reliability, spare parts availability was rated positively, technology and innovation was slightly below positive rating, and brand reputation was the lowest (though still within the neutral-positive zone). This result seems to confirm that low correlation of Symbolic Affective does affect how young people perceive a car psychologically. As a result, the rating of brand reputation was low. On the other hand, aspects such as spare parts availability and technology & innovation are related more to Instrumental Functional. Thus it was rated positively.

Convenience has a coefficient of 0.60 with a p-value of ***, which means that it has a strong correlation and high level of significance (Table 3). This criterion was rated very positive and among the upper tier of important factors when young people purchase a car. This result might link to Instrumental Functional as the criteria explained on how well the design of the equipment such as number of seats, trunk size, and legroom space, is for comfort and easy operation. Furthermore, this criterion also drew a link to one of the statements from Social Orderliness – my car should accommodate my nuclear family. As a result, young people showed a high positive answer to the criterion of internal space utilisation

Safety has a coefficient of 0.81 with a p-value of ***, which means that it has a very strong correlation and high level of significance (Table 3). This is the strongest correlated parameter compared to the others. Safety could be enhanced by designing additional features to protect the drivers and passengers against accidents and also to reduce the risk of serious injury or death. As the criteria were ranked, car body firmness and ABS were rated positive while quality and quantity of airbags were slightly below the positive rating. The result shows that young people were highly aware of safety and would consider this aspect the most when making their purchase decision. These criteria are also linked to Instrumental Functional, especially on how safety features in cars can improve the experience of the driving. This makes the degree of importance of safety is very high.

After-Sales Service has a coefficient of 0.57 with a p-value of ***, which means that it has a moderate correlation with high level of significance (Table 3). This result might be also related to the high concern on safety and maintenance cost. Young people would consider the warranty and insurance service offered by the car manufacturers or dealers. Good after-sales service would determine the post-purchase behaviour. If customers are satisfied, they would do a repurchase or recommend the product to others. Otherwise, they would have a negative attitude towards the product or the brand. Car manufacturers must ensure that the customers are satisfied not just during the purchasing process, but also even after obtaining the vehicle.

V. CONCLUSION AND RECOMMENDATIONS

V.1. CONCLUSION

The first aim of this study is to investigate the motivation of car ownership and factors determining car purchase decisions among young people in Jakarta and surrounding cities. The result shows that the motivation of owning a car is largely driven by the Instrumental Functional and Independence criterion a car can give. On the other hand, the Symbolic Affective attitude and Social Orderliness factors are less influential on the motivation of car ownership.

The result also suggests that the improvement of public transport in Jakarta, such as *Transjakarta*, Commuter Line, and the additional expense and tax are not strongly correlated. On the other hand, the current presence of E-hailing application and the establishment of MRT in the future might reduce the car ownership for young people. Nonetheless, there should be anticipation from PT XYZ towards such factors.

The second aim is to analyse the preference of car according to young people (Table 2). The result shows that young people would prefer a smaller car such as Sedan and Hatchback. Furthermore, there was a similar pattern of answers regarding the preferred car engine. Young people would choose a petrol and diesel fuelled vehicle, regardless the car type. The reasons could be because the lesser expenditure on maintenance and service cost, and chance of risk, compared to other car engine such as Hybrid.

Moreover, young people who prefer Sedan, Hatchback, and MPV were more price conscious. The preferred price range of these types of cars was between IDR 151 millions (around USD 11K²) and IDR 300 millions (around USD 22K). On the other hand, those who prefer SUV were willing to spend more between IDR 301 millions (around USD 22K) and IDR 450 millions (around USD 33K) for a car.

In addition, the cylinder capacity of each Sedan, Hatchback, and MPV would be preferred between 1500cc to 2500cc. Whereas the preferred cylinder capacity of an SUV would be between 2500cc and 3000cc.

The survey results also show that young people have a different level of criteria of purchase decision. Regardless the car type, purchase price, fuel efficiency, and durability were placed as the most important considerations. On the other hand, brand reputation and resale value were considered the least important of purchase decision.

The third and fourth aim of this study are to examine whether there is a correlation between car ownership deterrents and car ownership motivation, and between car ownership motivation and car purchase decision. The result shows that while there is no significant influence between car ownership deterrents and car ownership motivation, there is a significant influence between car ownership motivation and car purchase decision.

V.2. RECOMMENDATION

The recommendation is based on the result and discussion. Every recommendation written below is divided according to three intensive strategies – Market Penetration, Market Development, and Product Development.

² USD 1 = IDR 13,500

- **Market Penetration**

While the current presence of Transjakarta and Commuter Line already have insignificant correlation to the delay of young people's intention to purchase a car, the existence of MRT in the future might give a significant impact on private car demand. Therefore, PT XYZ may need to put more focuses to increase sales by establishing more car dealerships on areas not covered by the MRT line and/or outside Jakarta, such as Tangerang, Depok, Bekasi, etc. Similarly, although the increase of vehicle tax in Jakarta would not significantly reduce the positive attitude of young people towards cars, PT XYZ still could seek a new opportunity to optimise the market penetration in regions outside Jakarta which has a lower vehicle tax.
- **Market Development**

The analysis shows that e-hailing applications or online taxis are moderately influencing young people to delay their purchase of car. While this could give a negative effect on car sales in the retail market, PT XYZ still could optimise its sales by providing and increasing supplies of car fleet for online taxi companies and making the purchasing terms, such as special credit or lease plan, easier for customers who want to be partners of online taxi. Currently, PT XYZ has extended a partnership with one online taxi company, but it could further expand with other online taxi companies.
- **Product Development**

As shown in the statistical analysis, car safety is the most important aspect that influence young people's purchase decision. The finding indicates that young people are very conscious about the safety aspect of the cars they are going to purchase. The availability of certain safety feature could add a positive score to the brand, thus automotive manufacturers need to ensure such features. The safety features could be optimised by PT XYZ through improving the versatility of airbags style such that they could protect the entire passengers, be it front-seat or back-seat. Furthermore, PT XYZ could provide adds-on safety features, such as a variety of seatbelt models, parking radars, and rear cameras.

Furthermore, car performance scored the second most important aspect in car purchase decision according to young people. The survey also showed that 51% of young people do not see cars as an immediate need. Cars then could be seen as an investment. To improve young people's perception of cars as a necessity, PT XYZ needs to improve the durability, fuel efficiency, and lower emissions.

The third most crucial aspect in car purchase decision is convenience. As stated on the study of Choo & Mokhtarian (2004), the worse the travel situation gets, the more people try to compensate by increasing the consumption instead of reducing travel. Often times, people will purchase a more expensive, and possibly less environmental friendly vehicle. This phenomenon was also mentioned during the internal interview with Marketing Planning Division of PT XYZ. Indeed, the travel congestion in Jakarta indirectly urges people to add more cars in a household. Due to the time wasted on the road, people decided to have more than one car for different family members, such that each of them could reach their desired destination (e.g. picking up / dropping off kids to school, going to working, doing shopping, etc.). Despite such advantages for the car sales of PT XYZ, the effect of the congestion such as prolonged sitting and inconvenience still needs to be address. This could be done by providing a variety of car-seat cover fabrics, optimising the legroom inside the car, and the size to car trunk.

V.3. FUTURE STUDIES

While this study has successfully investigated the relationship between car ownership deterrents, car ownership motivation, and car purchase decision, there are still some refinements could be done for the future studies. Besides repeating this topic with wider samples, expanding the demography and household characteristic of respondent are also crucial. Furthermore, expectation-reality analysis of cars respondents have is also suggested. The future studies could measure the gap between cars that are available in the market and the real preference of customer. Lastly, one could investigate the same topic in different regions, especially in rural regions or outside Java. The slower development of public transportation and the lower vehicle tax in those areas might affect differently on how people perceive a car and their purchase decision.

ACKNOWLEDGEMENT

This study has benefited from an interview with Marketing Planning Division of PT XYZ.

REFERENCES

- Ajzen, I. (1991). The theory of planned behaviour. *Organisational Behaviour and Human Decision Process*, 50(2), 179 - 211.
- Ansoff, H. I. (1957, September 5). Strategies for Diversification. *Harvard Business Review*, 35(5), 113-124.
- Asami, H., Owada, H., Murata, Y., Takebuchi, S., & Amasaka, K. (2011, September/October). The A-VEDAM Model for Approaching Vehicle Exterior Design. *Journal of Business Case Studies*, 7(5), 1-8.
- Banihashemi, S. A., & Rejaei, Z. (2016). Assessment of Environmental Conditions and Internal Capabilities Affecting University Strategies (IFE, EFE, SWOT, & AHP Models). *International Journal of Asian Social Science*, 6(10), 558-567.
- Beirão, G. (2007, June 8). Understanding attitudes towards public transport and private car: A qualitative study. *Transport Policy* 14, 478-489.
- Belgiawan, P., Schmöcker, J.-D., & Fujii, S. (2012, May 22). Understanding car ownership motivations among Indonesian students. *International Journal of Sustainable Transportation*, X(4), 295-307.
- Belgiawan, P. F., Schmöcker, J.-D., Abou-Zeid, M., Walker, J., Lee, T.-C., Ettema, D., & Fujii, S. (2014, September 14). Car ownership motivations among undergraduate students in China, Indonesia, Japan, Lebanon, Netherlands, Taiwan, and USA. *Transportation* (41), 1227-1244.
- Bergstad, C. J., Gamble, A., Hagman, O., Polk, M., Gärling, T., & Olsson, L. (2011). Affective-symbolic and instrumental-independence psychological motives mediating effects of socio-demographic variables on daily car use. *Journal of Transport Geography* (19), 33-38.
- Bhuiyan, N. (2011, November). A framework for successful new product development. *Journal of Industrial Engineering and Management*.
- Byun, D.-H. (2001). The AHP approach for selecting an automobile purchase model. *Information & Management*, 38, 289-297.
- Choo, S., & Mokhtarian, P. (2004). What type of vehicle do people drive? The role of attitude and lifestyle in influencing vehicle type choice. *Transportation Research Part A*, 38, 201-222.
- Cooper, D. R., & Schindler, P. S. (2014). *Business Research Methods* (12th Edition ed.). New York: McGraw-Hill Education.
- Cullinane, S. (2002). The relationship between car ownership and public transport provision: a case study of Hong Kong. *Transport Policy*, 29-39.
- David, F. R., & David, F. R. (2015). *Strategic Management Concept and Cases* (15th Edition ed.). (S. Wall, Ed.) Pearson Education Limited.

- De Vos, J., Derudder, B., Van Acker, V., & Witlox, F. (2012). Reducing car use: changing attitudes or relocating? The influence of residential dissonance on travel behavior. *Journal of Transport Geography* 22, 1-9.
- Deloitte. (2009). *A new era Accelerating toward 2020 — An automotive industry transformed*. London: Deloitte Touche Tohmatsu.
- Fazayeli, L. (2012, January). Strategic Planning for a Lubricant Manufacturing Company. *Australian Journal of Business and Management Research*, 18-24.
- Gärling, T., Eek, D., Loukopoulos, P., Fujii, S., Johansson-Stenman, O., Kitamura, R., . . . Vilhelmson, B. (2002). A conceptual analysis of the impact of travel demand management on private car use. *Transport Policy* 9, 59-70.
- Gardner, B., & Abraham, C. (2007). What drives car use? A grounded theory analysis of commuters' reasons for driving. *Transportation Research Part F*, 187-200.
- Gatersleben, B. (2011). The Car as a Material Possession: Exploring the Link between Materialism and Car Ownership and Use. (K. Lucas, E. Blumenberg, & R. Weinberger, Eds.) *Auto Motives*, 137 - 148.
- Goetzke, F., & Weinberger, R. (2010). Unpacking preference: How previous experience affects auto ownership. *Urban Studies*, 47(10), 2111-2128.
- Gupta, S. (2013, December 12). A Study of Buying Decision Influencers for Passenger Car Segment in New Delhi. *International Journal of Business and Management Invention*, II(12), 64-71.
- Hagman, O. (2003). Mobilizing meanings of mobility: car users' constructions of the goods and bads of car use. *Transportation Research Part D8* (1), 1-9.
- Hair, J., Black, W., Babin, B., & Anderson, R. (2010). *Multivariate Data Analysis* (7th Edition ed.). Upper Saddle River, New Jersey, USA: Pearson Prentice Hall.
- Hansen, F., & Smith, M. (2003). *Crisis in Corporate America: The Role of Strategy*. Business Horizons, 9.
- Hussain, S. (2013). ANSOFF matrix, environment, and growth-an interactive triangle. *Management and Administrative Sciences Review*, 2(2), 196-206.
- Indonesia Investments. (2016, May 16). *Automotive Manufacturing Industry Indonesia*. Jakarta, DKI Jakarta, Indonesia.
- J.D. Power. (2016, October 3). Customers Are Spending More to Buy Entry SUVs; Popularity Soars and So Does Satisfaction, J.D. Power Study Finds. Retrieved April 16, 2017, from J.D. Power: <http://www.jdpower.com/press-releases/jd-power-2016-indonesia-sales-satisfaction-index-ssi-study-mass-market-segment>
- Jensen, M. (1999). Passion and heart in transport — a sociological analysis on transport behaviour. *Transport Policy* (6), 19-33.
- Jody, J. (2016, September 20). Telephone interview with with the President Director of PT Astra Sedaya Finance. (D. Darwan, Interviewer)
- Kaas, H.-W., Mohr, D., Gao, P., Müller, N., Wee, D., Hensley, R., . . . Kohler, D. (2016). *Automotive revolution - perspective towards 2030*. Hong Kong, Munich, Detroit, Vancouver, Vienna, Perth, Silicon Valley, Waltham: McKinsey & Company.
- Kotler, P. (1997). *Marketing: An introduction*. USA: PrenticeMcGraw-Hill Companies.
- Lee, T., & Govindan, S. (2014). Emerging Issues in Car Purchasing Decision. *Academic Research International*, 5(5), 169-179.
- Liem, C. (2015, December 22). Blog Post. Retrieved from Bruegel: <http://bruegel.org/2015/12/the-rise-of-the-sharing-economy-in-indonesia/>
- Matas, A., & Raymond, J.-L. (2008). Changes in the structure of car ownership in Spain. *Transportation Research Part A*, 42, 187-202.
- Nangoi, Y. (2016, May 30). Perbandingan Jumlah Mobil dan Penduduk Indonesia, 1 Mobil untuk 70 Orang. (R. Rahadiansyah, Interviewer)

- Pemprov DKI. (2014). Data Jumlah Penduduk DKI Jakarta Berdasarkan Usia. Jakarta, Indonesia.
- Peters, A., de Haan, P., & Scholz, R. (2015). Understanding Car-Buying Behavior: Psychological Determinants of Energy Efficiency and Practical Implications. *International Journal of Sustainable Transportation* (9), 59-72.
- Peters, A., Mueller, M., de Haan, P., & Scholz, R. (2011). Psychological determinants of fuel consumption of purchased new cars. *Transportation Research Part F: Psychology and Behavior*(14), 229-239.
- Redman, L., Friman, M., Gärling, T., & Hartig, T. (2013). Quality attributes of public transport that attract car users: A research review. *Transport Policy*, 25, 119-127.
- Scherer, M., Cassidy, D., Utomo, T., & Karnadi, B. (2016). Opportunities and Challenges in Indonesia's Automotive Industry. Jakarta: Ipsos Busienss Consulting.
- Shende, V. (2014, February). Analysis of Research in Consumer Behavior of Automobile Passenger Car Customer. *International Journal of Scientific and Research Publications*, IV(2), 1-8.
- Steg, L. (2005). Car use: lust and must. Instrumental, symbolic and affective motives for car use. *Transport Research Part A*, 147 - 162.
- Sumaedi, S., Bakti, I., Astrini, N., Rakhmawati, T., Widiarti, T., & Yarmen, M. (2014). Public transport passengers' behavioural intentions: Paratransit in Jabodetabek-Indonesia. Springer.
- Tanner, J. (1978). Long-Term Forecasting of Vehicle Ownership and Road Traffic. *Journal of the Royal Statistical Society. Series A (General)*, 14-63.
- Van Acker, V. (2010). Spatial and social variations in travel behaviour: incorporating lifestyles and attitudes into travel behaviour-land use interaction research. Gent : Geography Department, Ghent University.
- Van, H., & Fujii, S. (2011). A Cross Asian Country Analysis in Attitudes toward Car and Public Transport. *The Eastern Asia Society for Transportation Studies*, 8, 411 - 421.
- Wainaina, N. G., & Oloko, M. (2015, October). Market Penetration Strategies and Organizational Growth: A Case of Soft Drink Sector in Kenya. *International Journal of Management and Commerce Innovations*, 3(2), 219-227.
- Wijeratne, D., & Lau, S. (2015). Riding Southeast Asia's automotive highway. PricewaterhouseCoopers.
- Woods, L. (2010, December 20). New Car Reliability Predicted by Consumer Reports. Retrieved from Street Directory: http://www.streetdirectory.com/travel_guide/54446/cars/new_car_reliability_predicted_by_consumer_reports.html
- Zhang, D.-Z., & Zhang, D. (2015). Determinants of Consumer's Automobile Purchase Decisions in China: Focus On Automobile Size. *International Journal of Management Research and Business Strategy*, IV(4), 61-68.
- Zhu, C., Zhu, Y., Lu, R., He, R., & Xia, Z. (2012). Perceptions and aspirations for car ownership among Chinese students attending two universities in the Yangtze Delta, China. *Journal of Transport Geography*, 315-323.