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An Analysis of the Factors Influencing Commuter Decisions in Using the Angkas: Motorcycle Ride Booking Transportation Service

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Abstract

Angkas, an innovative ridesharing motorcycle application in the Philippines, has been disrupting the Transportation Network Company (TNC) business. It has given commuters an alternative option to both TNCs and Public Utility Vehicles (PUVs) due to its speed in beating traffic and its affordable price fares. This study identified the different factors that affect the decision-making process of commuters in using Angkas. The researchers used the Theory of Planned Behavior as the primary framework of the study in order to discover and analyze the respondents' behavior, and to see how this influenced their intent in using the Angkas application. Other researches were used to supplement the Theory of Planned Behavior in order to develop a deeper understanding of the study. The researchers conducted a focus group discussion (FGD) with individuals who have used Angkas, and identified several consumer insights that were valuable in creating the operational framework and the survey questionnaire for the study.

The results showed that the perception of Metro Manila traffic greatly affects an individual's choice of mode of transportation. Apart from Metro Manila's heavy road congestion, most respondents valued speed as a primary factor in their choice, followed by price, availability, and reliability. Despite the initial hypothesis that a person values another person's opinion about Angkas, the results showed that this was an insignificant factor. This was because, predominantly, the participants did not solely rely on the recommendations of their social community; the severity of traffic and Angkas' speed overrode their decision. As participants pointed out, they needed a solution that would maximize the value of their time. By making Angkas an option for public transportation in Metro Manila, Angkas has the potential to increase productivity and provide more employment opportunities for Filipinos.

Keywords: *Angkas Application, Theory of Planned Behavior, Factor Analysis, Transportation Network Vehicles, Traffic*

Introduction

According to an article from *The Philippine Star*, as of November 2017, a study commissioned by ridesharing company Uber showed that "Manila ranks third among the worst cities in Asia when it comes to the time people spend daily on traffic gridlock," and that "people in Manila spend the third longest average time being stuck in traffic every day at 66 minutes"

(Mercurio, 2017, par. 1-2). The current traffic situation and persistent public transportation woes that pushed technology companies to create a solution that made getting around the city easier. This is how Transportation Network Vehicle Services (TNCs), more commonly known as ridesharing apps such as Uber and Grab, entered the country.

In most developing countries, motorcycles have become a widely accepted mode of transportation. In the Philippines, they have become modes of local public transportation, often in the form of tricycles and "habal-habal," or "motorcycle taxis" (Guillen & Ishida, 2004). Habal-Habal is an alternative form of public transportation available throughout the Philippines, where a motorcycle driver offers another person a ride for a certain price, usually outside busy train or bus stations. It is commonly used in provinces in the Philippines where other public utility vehicles cannot handle rough and narrow roads. Despite its popularity, Habal-Habal is actually considered as an illegal mode of public transportation.

Angkas is an application-based motorcycle taxi service becoming popular in Metro Manila, which works the same way as Uber and Grab. With the traffic situation getting worse in the metropolitan areas of the country, commuters have begun to look for better and faster options to travel around the city.

With the Philippines leading in motorcycle sales in the ASEAN region (Mercurio, 2016), Angkas capitalized on this untapped potential and created a transportation service for people. Angkas functions similarly to other ridesharing services such as Uber and Grab: passengers download the application, book a ride at a fixed, upfront rate, and wait for the driver to arrive. Both Angkas' leverage on technology and their advantage of being the only motorcycle taxi service in the market resulted in an increase in its popularity, and the application has now become known for its ability to cater to the mass consumer market. Angkas' aggressive digital media presence, availability, and cost has successfully propelled it into the ridesharing market.

Given the significance of traffic in the daily lives of Filipino commuters and the rise of various ridesharing applications, particularly Angkas, which is very unique and fairly new in the industry, the researchers identified two main problems: (a) How does the current Metro Manila traffic situation influence commuters' use of Angkas, and (b) how can the Theory of Planned Behavior determine the key factors that influence commuters' use of Angkas?

This study aimed to identify the factors that influence commuters in Metro Manila in choosing to use Angkas, and to formulate recommendations on how to improve the Angkas application in order to maintain and sustain its position in the market, based on the results of the study.

As traffic in Metro Manila has continued to worsen, technological advancements of transportation services have begun to create an array of various transport modes. This paper's scope is limited to Angkas being used in Metro Manila, and will only focus on commuters who have tried or currently use Angkas.

For this paper, the researchers applied the principles of Ajzen's Theory of Planned Behavior (TPB) in understanding the factors influencing a person to use the Angkas application. TPB states that a human action is led by three predictors:

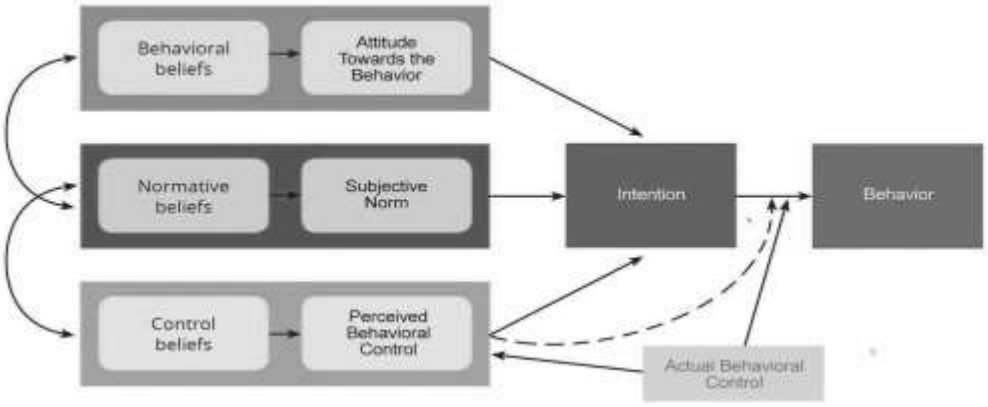
1. Behavioral beliefs are evaluations of favorable or unfavorable outcomes toward a certain action.

2. Normative beliefs are perceived behavioral expectations or pressures of important people or groups.

3. Control beliefs are factors that may encourage or hinder carrying out a particular action (Ajzen & Fishbein, 1980).

Intention is the cognitive representation of a person's readiness to perform a given behavior, and is considered to be the immediate antecedent of behavior (Ajzen, 2002). A stronger intention may be achieved if TPB's three predictors are met, as opposed to just one or two. Understanding the factors affecting these behaviors and the intentions produced from them will enable the researchers to plot ways to influence a change of behavior (Ajzen, 1991). The schematic diagram in Fig. 1 is a representation of the Theory of Planned Behavior.

Figure 1. Theory of Planned Behavior (Ajzen, 2006)



Adapted from Knabe, 2009

Framework

Consumer Behavior

Consumer behavior is often associated with Social Influence, as it is the "who" behind consumer behavior and sustainability. Social Influence is defined as how an individual or group influences other people's thoughts, opinions, attitudes, emotions, or behavior. Our awareness, actions, and responses are parts of consumer behavior (Goldsmith, 2015). It is important to examine the correlation between consumer behavior and social influence, and how this impacts individuals' intentions, as this can be a powerful determinant of people's behavior. Consumer behavior can be predicted by the three determinants of a human action based on the Theory of Planned behavior.

Attitudes

Attitudes are defined as "a relatively stable effect like judgment that a product (or object) has desirable or undesirable properties. The judgment takes the form of a liking or disliking, and is based on many separate evaluations of product features that are combined using various heuristics" (Oliver, 2010). Thus, attitudes play an important role in determining a person's behavior, especially when examining its relationship with consumer behavior and social influence.

Subjective Norms

Subjective norms are the perceived social pressures "to perform or not to perform the behavior" in question (Ajzen, 1991, p. 188). However, subjective norms are usually defined more precisely as an individual's perception or "opinion about what important others believe the individual should do" (Finlay, Trafimow, & Moroi, 1999).

Perceived Behavioral Control

Perceived behavioral control is defined as "people's perceptions of the degree to which they are capable of, or have control over, performing a given behavior. As is true of intentions, the construct of perceived behavioral control can find expression in different statements such as, 'Performing this behavior is up to me,' 'I can perform this behavior if I really want to,' or 'I have the necessary skills and abilities to perform this behavior'" (Ajzen & Fishbein, 2009). This means that it is important to consider examining behavioral intentions, given that a person's actual ability to carry out a particular behavior is independent of their perceived control to actually carry out the same action.

Behavioral Intentions

Behavioral intentions indicate a person's readiness to perform a behavior, and the readiness to carry out a particular behavior is depicted by an intention. "The essential underlying dimension characterizing an intention is the person's estimate of the likelihood or perceived probability of performing a given behavior. We expect that the higher this subjective probability, the more likely it is that the behavior will in fact be performed" (Sutton, 2002).

In the context of the Theory of Planned Behavior, intention refers to the motivational factors that influence a given behavior, where the stronger the intention to perform the behavior, the more likely the behavior will be performed. Ajzen (2002b) states that "successful performance of the behavior depends not only on a favorable intention but also on a sufficient level of behavioral control."

Customer Satisfaction Theory

According to Oliver (2010), satisfaction, in evolutionary terms, is a "simple satiation.... Essentially, consumers are now described as wanting more 'satisfaction from their satisfaction' since 'merely satisfying' the consumer may no longer provide a competitive advantage." Upon reviewing the literature, many studies tried to examine the idea of employees' behavior and its relation to customer satisfaction. For example, Jones and Dent (1994) found that a smiling face had a beneficial effect on customer satisfaction. A number of studies have also noted the importance of friendly behaviors (friendliness, familiarity, caring, politeness, responsiveness, trustworthiness, helpfulness, and understanding) in service staff in improving service outcomes and long-term relationships (Sparks, 1994).

Commuter Satisfaction was also explored in this study, in relation to customer satisfaction research. Considering "trip satisfaction" as a type of customer satisfaction, it can come from both the service offered (in this case, trip characteristics), and the consumer's (commuter's) reaction to the service, which may vary depending on a consumer's attitudes, personality, and predispositions (Friman & Fellesson, 2009). St-Louis, Manaugh, Lierop, and El-Geneidy (2014) stated that satisfaction from a trip does not only come from the trip itself and the mode of transportation's characteristics, but also from the individual commuter's

experience, which depends on socio-demographics, personality characteristics, and travel and mode of transportation preferences.

Objective elements such as mode of transportation, trip cost, duration, distance, and season were regarded as key determinants of commuter satisfaction. Turcotte (2011) discovered that the satisfaction from a commute decreases as travel time increases, and that traffic congestion was the root of dissatisfaction for both drivers and bus users.

Social Influence Theory

According to Katz and Lazarfeld (1955), individuals interact with other individuals to transmit information and, hence, influence each other in ways far more powerful than previously recognized. In the theory of planned behavior, a social norm is defined as "the perceived social pressure to perform or not to perform the behavior" (Ajzen, 1991, p. 188)

In this study, the dependent variables were the factors the respondents considered in using Angkas. The independent variables were the respondents who had used Angkas in the past 6-9 months during the year 2017, had used ridesharing apps in the past, and who were under the Millennial age group, and born between 1982 and 2004. As there are several definitions of Millennials, this study used Howe and Strauss' (2004): individuals born roughly from 1982 to 2005.

Based on the insights gathered from a focus group discussion the researchers conducted, millennial respondents shared specific attributes when deciding to use Angkas—speed being the main reason as to why they were most likely to use the application. Respondents also considered using the application due to both Metro Manila's heavy traffic and a limited amount of time to get to their destinations on time. Recommendations from friends or people they personally knew increased the likeliness of respondents using Angkas. In this study, the friends who recommended using Angkas acknowledged that the person they recommended it to may have been either rewarded or punished depending on whether they reached their destination or not, which therefore showed social influence influencing normative beliefs.

According to the Theory of Planned Behavior, intentions are the best predictors of behavior. In this study, if Angkas satisfies all three predictors (behavior beliefs, normative beliefs, control beliefs), then a person is more likely to use the application. These predictors are supported by different theories. Customer satisfaction theory was used to support the theory of planned behavior and how respondents of this study reused Angkas after using it for the first time, while social influence theory was used to examine its relationship with normative beliefs. This is because people are more likely to perform or not perform a particular behavior when they have examined and viewed a particular product or service positively, based on the feedback of their peers (Ajzen, 2005).

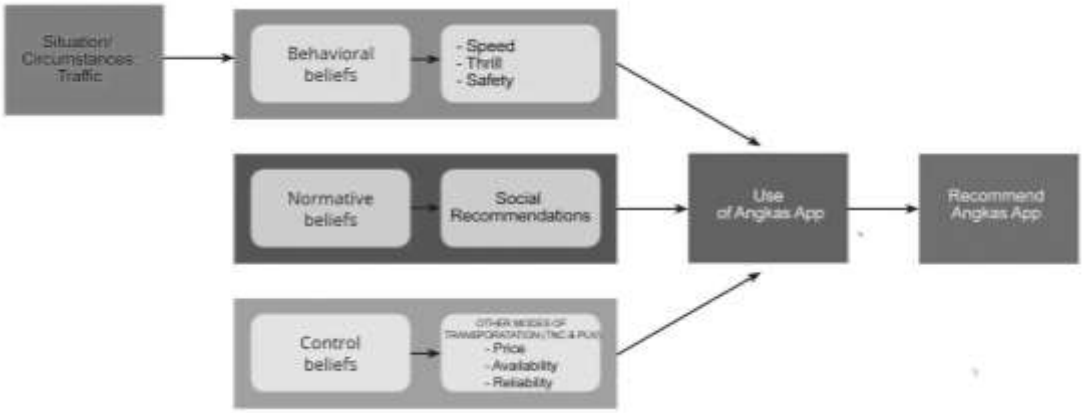


Figure 2. Operational Framework with Variables Taken from the FGD

Operational Framework

According to a report by *The Philippine Star*, the traffic problem in Metro Manila has been present for more than four decades. The number of vehicles has significantly increased, but the roads have not gotten any wider (Ramirez, 2017). Speed is essential to Filipino commuters, especially for meeting obligations on time. Another report from the same newspaper that was released in 2016 stated that:

[T]here are 2,317,204 registered vehicles in Metro Manila; vehicle density is 3,643 per square kilometer, much higher than Singapore or Tokyo; and the volume of vehicles plying EDSA is estimated at 520,000 per day in both directions — over and above the capacity which should only be 288,000 per day in both directions. The three rail lines (LRT-1, LRT- 2 and MRT-3) combined also serve more than 1.3 million commuters daily — who have to put up with anxiety at the thought their ride could get derailed due to some glitch or system error. (Romualdez, 2016, para. 2)

Given this, commuters have sought faster and cheaper alternatives. Because Uber and Grab are unable to escape heavy traffic congestion, motorcycles have been used as another means of transportation.

On the other hand, another behavioral belief that was considered in this study is the thrill of riding a motorcycle. In a blog post published by Imhof (2014), for him, motorcycle riding is a mixture of exhilaration, fear, relaxation, and pleasure. It is connected to physical and emotional pleasure, with a level of anxiety and adrenaline. Furthermore, motorcyclist magazine *Motorcyclists* Online (Buell, 2009) released an article about the reason they ride the vehicle. For them, "motorcycle riding is the ultimate freedom" (par. 4). They ride for "joy-for freedom, weather, wildlife, curiosity, speed, escape, satisfaction, [and] challenge" (par. 10).

The final behavioral belief indicated in this study is safety. In a study done by St-Louis et al. (2014), they compared commuter satisfaction with various modes of transportation, and investigated how determinants of satisfaction differ across these modes. The objective was based on the premise that trip satisfaction is affected not only by external trip characteristics, but also influenced by less tangible, internal factors, such as attitudinal and personal variables

related to the commuter. One such factor is safety. In reference to Smith and Clarke's (2000) study, "safety is one of the important elements in defining the transport's quality and must be considered greatly." They added that people who chose to commute perceived safety issues as a constraint when it comes to travelling.

Based on the social influence theory under normative beliefs, social recommendation plays a significant role in influencing a person to use Angkas.

Another variable that was considered in this study is the price and availability of TNCs, such as Uber and Grab. Part of the limitations of this research was that respondents were narrowed down to only those who use or have used Uber, Grab and Angkas, our hypothesis being that price and availability greatly affect their decision to choose Angkas. Availability was defined as the number of vehicles ready to pick up passengers or be ridden within a certain number of hours. In addition, Brian Cu, Country Marketing Head of Grab confirmed this in a news piece from GMA (Colcol, 2016) where he stated that price does increase based on different factors such as passenger demand, usage of the application, traffic, and road conditions. In cases where pricing is high and availability is low, passengers resort to exploring alternative modes of transportation, such as Angkas.

In summary of the study's operational framework, with Metro Manila traffic being the antecedent, the researchers attempted to find out whether the variables speed, thrill, and safety under behavioral beliefs, social recommendations under normative beliefs, and price, availability, and reliability of TNCs and PUVs under controlled beliefs, affected the consumer's decision to use Angkas. The accumulated experiences, beliefs, and perceptions in the repeat usage of Angkas led the user to either recommend or not recommend Angkas to their circle of influence.

Hypothesis

Hypotheses: The more favorable a person's attitudes are, and the more subjective norms are combined with perceived behavioral control, the stronger their intention to use Angkas.

This paper attempted to answer the research question: how do the determinants of the Theory of Planned Behavior, namely attitude, perceived control, and subjective norms, influence the intention of commuters to use Angkas?

H1: Metro Manila traffic acts as an antecedent, which precedes the attitude of the people toward their perception of the use of Angkas.
H2: The attitude toward behavior positively influences the use of Angkas.
H3: Subjective norms (people whose opinion one values) can influence the use of
H4: The control beliefs also positively influence the use of Angkas.
H5: Customer Satisfaction can positively influence a person's attitude toward the use of the Angkas.
H6: Customer Satisfaction can positively influence a user to recommend Angkas to their peers.

Methodology

The researchers used the Theory of Planned Behavior as the study's main theoretical framework. In order to formulate the questionnaire for the study and determine the variables to help construct the framework, the team conducted three batches of focus group discussions (FGDs). The FGDs were composed of three batches held in three different cities (Taguig, Makati, and Quezon City). Each discussion had 6 individuals, consisting of a mixture of

millennial males and females ranging from 21 to 28 years of age. The researchers used an FGD Questionnaire Guideline to dig deeper into the respondents' backgrounds, lifestyles, and perspectives and feelings regarding ride sharing applications.

The created questionnaire was pre-tested on fifteen individuals to help finalize the format. The final survey was then created on Google Survey, which was shared through various social media platforms and networking sites. The researchers initially tapped family, friends, and colleagues, before moving on to online groups consisting of riders and drivers that supported Angkas. The total respondents amounted to 366, but was reduced to 364 due to answers that were considered as void.

Results and Discussion

The FGD was split into 3 discussions and proved to be a success, as the data collected yielded insights that were used in the questionnaire and as a stepping stone for building the operational framework.

The researchers asked the respondents how they discovered Angkas. The majority stated that it was a recommendation from friends that had previously used the application. As a repeating statement, *social recommendations* was categorized under normative beliefs toward the use of Angkas.

Verbatim:

- "Saw one of my friends used [*sic*] it in replacement of grab."
- "Ni refer sakin kasi mabilis kapag traffic." [It was referred to me because it's quick when traffic is heavy.]
- "Yung mga friends ko gumagamit ng Angkas, sabi nila ok naman na gamitin." [My friends also use Angkas. They say it's okay to use.]

Angkas was also preferred by the other respondents instead of Uber and Grab due to its being quicker and cheaper when traffic is present.

Verbatim:

- "Yung 1 hour mahigit ko na biyahe nagiging 45 mins na lang." [A trip that normally takes one hour becomes just 45 minutes.]
- "Angkas talaga mas mabilis lalo na kapag nagmamadali." [Angkas really is faster especially when you're in a hurry.]
- "Mas mura sa Angkas kasi mahal surcharge ng Uber and Grab." [Angkas is cheaper because the surcharges of Uber and Grab are more expensive.]

Angkas was commonly used for going to work in the morning and going back home at night. The respondents stated that they preferred to use Angkas when they were in a rush to get to their destinations on time. In terms of why they were still using the application, respondents said that Angkas saved them money and time when it came to travelling.

Verbatim:

- "I want to get home fast."
- "Use Angkas to save time even if riding a motorcycle is dangerous."
- "The best siya kapag rush hour, nababawasan yung travel time." [It's the best during rush hour, travel time is reduced.]

With the gathered insights on why the respondents still used Angkas, the researchers then asked them what they liked about the application. The majority of the respondents

indicated that the speed of riding Angkas was the best thing the application provided because it allowed them to beat the traffic. Another factor were the promo codes and cheap prices, which led the respondents to choose Angkas instead of Uber or Grab. The researchers also gathered an interesting insight: respondents found the idea of riding a motorcycle thrilling or exciting.

Quality of service was mentioned throughout the FGD discussion. Respondents considered safety and welfare during travel as an important factor before choosing to book a ridesharing application or PUV. Some respondents felt safer using Angkas instead of PUVs because there was less chance of getting harassed, robbed, or mugged. The researchers then categorized thrill, speed, and safety as factors for behavioral beliefs, as these affect the consumer's attitude before riding Angkas.

Toward the end of the FGDs, the respondents were asked to compare Angkas with PUVs. Fare price, availability, and reliability were top points in the discussion. Price was deemed high for Uber and Grab due to price surges, even with discount promo codes. And while the GrabShare/Uber Pool features had cheaper fares, these were seen as inconvenient during rush hour due to having to stop at multiple destinations. Angkas was seen as the top choice in terms of price among the available ridesharing applications due to its cheap cost and promo codes. PUVs, on the other hand, may be the cheapest option, but was considered by the respondents as a last resort when travelling.

The respondents expressed amazement that Angkas was consistent in its availability in their respective areas, and was always quick to respond to bookings. Grab and Uber were considered difficult to book during rush hour, while PUVs were seen as always available, even if this was not their top choice.

Lastly, in terms of reliability, Grab and Uber proved to be the most reliable for the respondents. Although Angkas was reliable, the application still had issues with its Global Positioning System (GPS) because of late location updates. Only a few respondents thought that Angkas had better navigation because of how the application was able to easily locate their destinations.

In summary, within the context of Angkas, price, availability, and reliability are perceived behavioral factors where a consumer has no control over the outcome, but are important to take note of because they affect a consumer's decision to ride Angkas.

For the final part of the discussion, when the researchers asked if the respondents would recommend Angkas to their peers, the majority commended the use of the application, while mentioning the positive traits mentioned in the discussion. An improvement participants wished from Angkas was to have more face masks and shower caps available for its passengers, a GPS update for accuracy, and the addition of brand new motorcycles.

From the data gathered, there were more male respondents (56%) than female respondents (44%). About 95% of the survey participants were aged between 18 and 34. Moreover, 92% of them had attained either a College and/or a Postgraduate degree. Other academic achievements varied from Elementary, High School, and Doctorate degrees. As for monthly income, 75.3% of the respondents declared income averages between Php 10,000 to 30,000.00

In the survey, the respondents were asked about their preferred modes of transportation and experience with public commuting in order to identify their behavior and the reasons why they initially chose that particular mode of transportation. This will help determine why they use it and why they had Angkas as one of their alternative mode of transportation as for which ridesharing applications they used, the results of the survey showed that 58% of the sample used Angkas together with other ride sharing apps like Uber and Grab. Within that 58%, participants used a combination of Uber and Angkas, Grab and Angkas, or all three.

Public transportation choices were also asked in the questionnaire. Outcomes exhibited that the majority of participants ride the jeepney at 83.8% combined with other PUVs, such as the FX or UV Express, MRT/LRT, and tricycle/pedicab.

Based from the profile of the respondents, the majority of participants have experienced riding a motorcycle prior to using Angkas. Meanwhile, a greater number of participants (83%) were already aware of Habal-Habal, but almost half (49%) had not used it. Looking closely, there was a pattern in the figure where people who have ridden motorcycles previously were more likely to ride similar means of transportation. Another portion of the questionnaire also tried to identify the users' perception of the speed, thrill/excitement, and quality of service, price, availability, reliability, and safety performance of Angkas.

The researchers identified 6 particular attributes from the sample: Speed, Thrill/Excitement, Price, Availability, Reliability, and Safety. Speed and safety fell under quality of service, hence its inclusion in the questionnaire.

The questionnaire used a Likert scale model where 5 represented the highest (provides the best performance) and 1 represented the lowest (provides the least performance). Based on Figure 5, the majority of the respondents rated their responses at around 4 to 4.5, hence the assumption that Angkas was able to meet passengers' expectations.

Given the Metro Manila traffic, Table 4 shows how Metro Manila Traffic influenced respondents to use Angkas.

Table 4

Scale	%
Most Influential	80%
Moderately Influential	14%
Somewhat Influential	4%
Slightly Influential	0%
Least Influential	1%

Table 3 shows the result of the cross-loadings of the constructs using SmartPLS, a statistical software for partial least-squares structural equation modeling. The table shows that the construct exhibits an internal consistency reliability because on average, they are all higher than the set target of >0.7 (Ketchen, 2013), as also stated in the paper by Bautista, Ranola, and Macomb (2017).

Table 5. Hypothesis Test Results			
Hypothesis	**Path**	**Original Sample (O)**	**P Values**
H1	Ant > Attitude	0.8312	0.0000
H2	Attitude > Use	0.3141	0.0000
H4	PBC > Use	0.5775	0.0000
H3	Social Norm > Use	-0.0372	0.5625
H5,H6	Use > Recommend	0.6730	0.0000

^p <0.20 ** p <0.05
*p <0.10 ***p <0.01

Table 5 presents the results from a bootstrapping analysis using Smart PLS. The researchers used this method to determine whether each variable was significant or insignificant in the framework and in analyzing the results based on the hypothesis. To see if each variable was significant or not, values under p-values must be lower than 0.005. In this table, the antecedent pathing to attitude, attitude to usage, PBC to Usage, and usage to recommendation were all significant. However, the social norm variable assumed to lead to usage was negative, and is hence insignificant, or most likely proves that hypothesis number 3 might not be true.

In hypothesis 1, it was stated that Metro Manila Traffic acts as an antecedent, which precedes people's attitudes toward their perception of the use of Angkas. Based on the results from Smart PLS, antecedent affected attitude in a way that traffic affected people's perceptions toward choosing a specific mode of transportation, which is, in this case, using Angkas. Guided by another question in the survey, results showed that among the respondents, 93% said that Metro Manila traffic affected their choice of transportation and that 81% in a Likert scale model stated that the traffic greatly influenced them to use Angkas.

For hypothesis 2, the attitude toward behavior positively influenced the use of Angkas. Looking back at the table above, 0.000 p value indicates the significance of the Attitude variable in the decision-making process of people who use Angkas. Furthermore, 59% of the respondents valued speed as one of the most essential factors, followed by price at 103%, availability at 91%, and reliability at 37.1%.

Meanwhile, hypothesis 3, where the subjective norm (important people) can influence the use of Angkas, was shown as insignificant. A higher social norm did not entirely equate to higher chances of using Angkas. This can mean that people do not entirely use Angkas just because other people within their circle use it.

Even though most of the respondents discovered Angkas generally through either word of mouth or social media, they did not necessarily use Angkas because of these reasons. With the results regarding social norm, one question indicated in the questionnaire justified the insignificance of the variable and how it was negative in the original sample. It was asked if the respondents will still consider riding Angkas if no one has referred it to them and 83.19% answered yes whilst the remaining are both no and undecided.

Therefore, it can be concluded that people will still use Angkas even if no one referred it to them, due to various reasons indicated in the survey results, as seen in the table below.

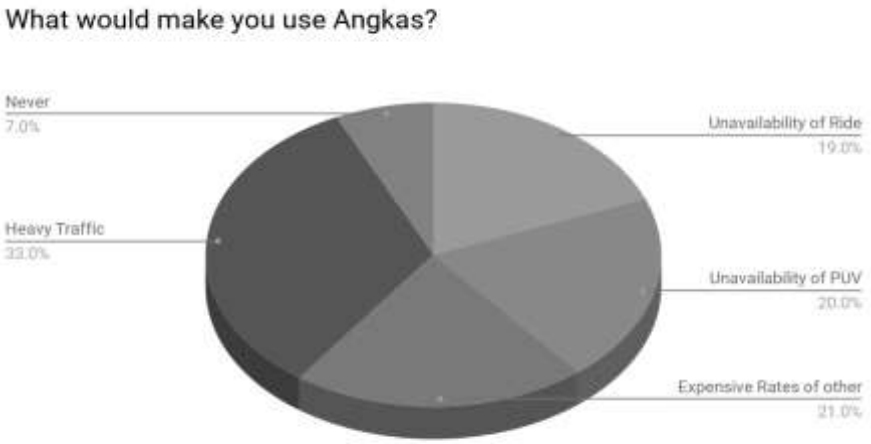


Figure 6. Participants' Reasons for Using Angkas

On the other hand, for hypothesis 4, it was assumed that the control beliefs also positively influenced the use of the Angkas. Based on the results of 0.000 for p values and 0.5775 for the original sample, responses were highly significant, and that the higher the control beliefs or perceived behavioral controls (PBC), the higher the chances of using Angkas. In this study, PBC is characterized as price, reliability, and availability. It is safe to say that the higher the need for certain rides (availability), reliable rides (reliability), and higher price points for other modes of transportations, the higher the possibility of considering using Angkas. As seen in Figure 8, people tended to ride the Angkas if there was an unavailability of vehicles or if other transportations rates were expensive.

The two remaining hypotheses, H5 and H6, come hand in hand in supposing that customer satisfaction can positively influence a person's attitude toward the use of Angkas, and can also positively influence a user to recommend Angkas to his peers. The p values states that 0.000 results is significant and O of 0.6730 is positive as well, therefore proving hypotheses H5 and H6 do indeed positively influence a person's attitude toward the use and recommendation of Angkas. Supported by the question of customer satisfaction toward Angkas usage, the graph below shows:

As 84% of the respondents were positively satisfied with Angkas' performance, it can therefore be concluded that Angkas has been able to provide a good quality of service, given that it was able to address people's primary reasons for using the application. Given that users were highly satisfied with Angkas' performance, respondents were asked if they would ever recommend it to other people. Results showed that 60% who answered the survey said they will definitely recommend it, followed by 32.3% who will probably recommend while the rest will not.

As mentioned in the review of related literature in this paper, the heart of the satisfaction process is the comparison of what was expected of the product's or service's performance and its actual performance. (Vavra, 1997). If Angkas was able to provide what was expected, it therefore meets the consumers' satisfaction level.

Conclusions, Limitations, and Recommendations

After conducting the research, we can say that speed, thrill, and safety as the main variables under behavioral beliefs (ATT), and price, availability, and reliability (PBC) under control beliefs, are significant elements in influencing people to ride Angkas. Social recommendations (SN), on the other hand, are not significant at all. Furthermore, we extended the Theory of Planned Behavior model by adding traffic as an antecedent, which came before the attitude that affected people's perception in riding Angkas. Based from the results, the antecedent is also a significant element.

From the results of the FGDs and surveys, we can conclude that people are highly affected by traffic, which impacts their decision their choice of mode of transportation from one place to another. Given Metro Manila's traffic situation, speed is an important element they consider, as traffic consumes a lot of valuable time in their daily lives. As respondents pointed out, time was valuable to them; they needed something that could help them make better use of their time so that they could focus on more important things, such as getting home faster and meeting their obligations on time.

Metro Manila offers numerous transportation options, such as Uber, Grab, and other PUVs. However, because of the unavailability and unreliability of these vehicles, in addition to heavy traffic, people resort to using faster modes of travel like Angkas. Apart from being a faster alternative, Angkas also provides a thrilling experience to its users, which therefore influences their attitude toward it.

Additionally, despite the fact that people may normally discover Angkas through either word of mouth or social media, these factors may not be a significant factor in their decision to use the application. Within the context of Metro Manila's heavy traffic problem, people's need for a quick way to get to their destinations on time will always be a stronger factor for them to consider using Angkas.

Therefore, we recommend that Angkas (a) improves their service quality, as this equates to higher customer satisfaction and a higher chance of it being recommended to other people, (b) improves and sustains their online presence, since this is how people primarily discover the service, and (c) further improves on the safety protocols of its service, given that this is a significant factor in people's choice of preferred mode of transportation. Although Angkas states in their website that they provide insurance coverage for passengers, this was never fully highlighted. Angkas should focus on this communication point for all future marketing efforts in order to dispel the impression that it is risky to ride a motorcycle." Finally, Angkas can also help promote better hygiene among drivers, such as encouraging them to keep their helmets clean, providing shower caps to their passengers, and maintaining good hygiene throughout the day.

Overall, Angkas is an effective service that helps resolve traffic in its own way. People choose Angkas not just because it is fast, but also because it helps people make use of their time efficiently. During the course of this research, from September to December 2017, Angkas was indefinitely suspended due to regulation issues. However, based on data gathered from the respondents, several people have expressed their sentiments about how Angkas was able to make their lives easier, and that it should be allowed to resume its operations.

For future researchers of this study, there are various things that can be done more the TPB. Additional measures may improve the paper by considering different antecedents or mediating variables that affect all other elements. Situation and the environment can further be expanded, as traffic is just one of the situations that was used in this research.

According to Arsenio Balicasan, the secretary for Socioeconomic Planning, in 2013, the Philippines was losing about 2.5 billion pesos in potential income because of traffic congestion consuming time that could have been used for productive pursuits. The losses would now have likely reached 3 billion pesos. Traffic congestion would have also gotten worse, since the current administration, at the time of writing this paper, has begun construction on more skyways, overpasses, and railways.

On average, Metro Manila commuters and motorists alike spend an hour on average on the road every day. Data provided by the Boston Consulting Group (BCG) revealed that the Philippines ranks 3rd as having the worst traffic in Southeast Asia. The results also stated that traffic may worsen as 84% of Metro Manila respondents expressed plans to buy a car in the next 5 years. 37% said they would be "highly willing" to drop their plans of purchasing a vehicle if ridesharing can meet their transport requirements. BCG also stated that ridesharing adoption between 16% and 40% across the cities is needed in line with public transportation just to control the levels of congestion.

In a recent study conducted by Uber, they found that "Metro Manila residents spent 402 hours stuck in traffic yearly.... about 25 days." According to Tech and Lifestyle Journal (2017), there are roughly over 20 million motorcycle taxis in more than 100 countries. The World Bank estimates that this will increase by more than 50% over the next five years. Motorcycle ride-hailing applications have also emerged to help organize the transport system, from UberMoto and GrabBike to Go-Jek in Indonesia, Go Bike in Thailand, Dego Ride in Malaysia, Ola in India, SafeBoda in East Africa, Citybird in Paris, and Scotty in Istanbul, to name a few. Transportation Network Companies have created opportunities of employment and reduced the unemployment and underemployed of people who might have wasted productive assets.

With the help of motor taxis, the latest data from Indonesia's Central Statistics Agency showed that unemployment rate has decreased significantly because of TNCs like Uber and Go-Jek, which have poured billions of dollars into their ridesharing platforms and attracted many Indonesians to join in as drivers.

In the Philippines, particularly in Metro Manila, commuters spend an average of 6 hours a day in traffic while the country loses approximately 2.4 Billion daily (Remo, n.d.). This significant loss creates a huge loss in productivity for both individuals and businesses. But with Angkas, commuters were able to maximize their day and perform their daily activities more efficiently, while at the same time providing employment to more Filipinos. According to a report from PSA, the employment rate in the National Capital Region (NCR) of the Philippines at 92.1% is considered one of the lowest across all regions. Among all unemployed individuals, 64% are males, 14.5% of which are college undergraduates. However, a large chunk of unemployed male individuals, 33.1%, have only completed junior high school (Bersales, 2017). Considering these statistics, Angkas has provided a means for people who have not finished high school, and who may not feel competent enough to find work, to both earn income and contribute a significant role to society as Angkas drivers.

Given these, motorcycle taxis actually revolutionized local mobility, not just for less privileged citizens that live in areas underserved by formal public transport, but across all social

classes desiring an alternative form of transportation. This service is not just a way to address traffic, but acts as a solution for various pain points of the economy.

This study can further enable the government and private sector to create the best possible strategies to enhance the proper use of motorcycles as an effective means of transportation and a viable business initiative.

Traffic in the Philippines is a huge problem that needs to be addressed, and both government and private sectors should work toward resolving this pressing issue. Not only are commuters affected by this, but also the entire country's economy. Ridesharing applications such as Angkas can be a vital addition to our current public transportation system in reducing road congestions. To help resolve this problem requires the unity of not just private and public sectors, but also the general participation of the country's citizens.

References

Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior. In I. Ajzen, The theory of planned behavior. Organizational Behavior (pp. 179-211).

Ajzen, I. (2001). Nature and operation of attitudes. Annual Review of Psychology, 28.

Ajzen, I. (2002). Perceived Behavioral Contro, Self-Efficacy, Locus of Control, and the Theory of Planned Behavior. Journal of Applied Social Psychology, 665.

Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behavior. Englewood Cliffs, NJ: Prentice-Hall.

Ajzen, Icek. Attitudes, personality, and behavior. Buckingham: Open University Press, 2005. P. 131

Araújo-Soares, V., Rodrigues, A., Presseau, J., & Sniehotta, F. F. (2013). Understanding springtime sunscreen use amongst Portuguese adolescents: A prospective study informed by a belief elicitation investigation. Journal of Behavioral Medicine, 36(2), 109–123. Doi: 10.1007/s10865012-9415-3

Bautista, R. J., Ranola, B., & Macomb, E. (2017). The moderating effect of media exposure on the purchase intention of generic drugs: An application of the theory of planned behavior. Asia Pacific Business &

Bersales, Lisa Grace. "Employment Rate in July 2017 Is Estimated at 94.4 Percent." *Philippine Statistics Authority*, 12 Sept. 2017, psa.gov.ph/content/employment-rate-july-2017-estimated-944-percent.

Colcol, E. (2016, December 15). Uber, Grab explain price surges: Ensure riding options, supply-demand balance. Retrieved from GMA News Online: http://www.gmanetwork.com/news/money/companies/592641/uber-grab-explain-price-surges-ensure-riding-options-supply-demand-balance/story/

Desiderio, L. (2017, September 10). Is traffic in Metro Manila solvable? Retrieved from PhiliStar Global: http://www.philstar.com/starweek-magazine/2017/09/10/1737366/traffic-metro-manila-solvable

Dobre, C. (2005) - Comportamentul consumatorului şi practica de marketing, Ed. Mirton, Timişoara

Finlay, K. A., Trafimow, D., & Moroi, E. (1999). The Importance of Subjective Norms on Intentions to Perform Health Behaviors. Journal of Applied Social Psychology, 66

Friman, M., & Fellesson, M. (2009). Service Supply and Customer Satisfaction in Public Transportation: The Quality Paradox. Journal of Public Transportation, 12, 57-79.

Goldsmith, E. B. (2015). Social Influence and Sustainable Consumption. Switzerland: International Series on Consumer Science.

Guillen, Marie Danielle V., and Maria Danielle V. Guillen. "MOTORCYCLE-PROPELLED PUBLIC TRANSPORT AND LOCAL POLICY DEVELOPMENT: The Case of." December 23, 2014. Accessed October 05, 2017. http://www.sciencedirect.com/science/article/pii/S0386111214600923#.

Howe, N., & Strauss, W. (2004). The Next 20 Years: How Customer and Workforce Attitude Will Evolve. Harvard Business Review, 41-52.

Imhof, S. V. (2014, May 31). What it feels Like to Ride a Motorcycle. Retrieved from Medium: https://medium.com/when-i-travel/what-it-feels-like-to-ride-a-motorcycle-5e378d89a75c

Imhof, S. V. (2014, May 31). What it feels Like to Ride a Motorcycle. Retrieved from Medium: https://medium.com/when-i-travel/what-it-feels-like-to-ride-a-motorcycle-5e378d89a75c

Jones, P., & Dent, M. (1994). Improving Service: Managing Response Time in Hospitality Operations. International Journal of Operations & Production Management, 52-58. Retrieved from https://doi.org/10.1108/01443579410056795

Katz, E., & Lazarfeld, P. F. (1955). Personal influence: The part played by people in the Flow of Mass Communications. New Brunswich (USA) and London (UK): Transaction Publishers.

Ketchen, D. J. (2013). A primer on partial least squares structural equation modeling. Long Range Planning, 46(1–2), 184–185. doi:10.1016/j.lrp.2013.01.002.

Knabe, A. (2009). Applying Ajzen Theory of Planned Behavior to a study of Online Course Adoption in Public Relations Education. *Marquette University.*

Manila Bulletin. (2017). City residents spend 402 hours stuck in traffic every year, Uber reveals. Manila Bulletin

Mercurio, R. (2016, June 2). Philippines leads motorcycle sales growth in ASEAN. Retrieved from http://www.philstar.com/business/2016/06/02/1589092/philippines-leads-motorcycle-sales-growth-asean

Mercurio, R. (2017, November 10). Worst city traffic in Asia: Metro Manila ranks 3rd. Retrieved from http://www.philstar.com/headlines/2017/11/10/1757475/worst-city-traffic-asia-metro-manila-ranks-3rd

Oliver, R. L. (2010). Satisfaction: A Behavioral Perspective on the Consumer (2010). Journal of Service Management, Vol 21 Issue 4, 549-551.

Ory, D., & Mokhtarian, P. (2005). When Is Getting There Half the Fun? Modeling the Liking for Travel. Transportation Research Part A, 39.97-123.

Romualdez, B. G. (2016, September 20). Traffic worse than ever. Retrieved from http://www.philstar.com/business/2016/09/20/1625387/traffic-worse-ever

Remo, M. V. (n.d.). 'Traffic costs P2.4B daily'. Retrieved February 05, 2018, from http://business.inquirer.net/130649/traffic-costs-p2-4b-daily

Sparks, B. (1994). Communicative Aspects of the Service Encounter. Hospitality Research Journal, Vol. 17, No. 2, 39-50.

St-Louis, E., Manaugh, K., Lierop, D., & El-Geneidy, A. (2014). The Happy Commuter: A Comparison of Commuter Satisfaction across Modes. August, 5.

Sutton, S. (2002). Testing attitude–behaviour theories using non-experimental data: An examination of some hidden assumptions. European Review of Social Psychology, 13, 293–323.

Turcotte, M. (2011). Commuting To Work: Results of the 2010 General Social Survey. Canadian Social Trends, Statistics Canada Catalogue no. 11-008-X.

Vavra, T. G. (1997). Improving your measurement of customer satisfaction: a guide to creating, conducting, analysing, and reporting customer satisfaction measurement programs. In T. G. (p. 42). American Society for Quality.