
OUT WITH THE OLD, IN WITH THE NEW: A STUDY ON THE VEHICLE HAILING PREFERENCES OF FILIPINO TAXI RIDERS BASED ON PARTICIPATION INTENT

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Abstract

The recent emergence of e-hailing applications like Uber, Grab, and EasyTaxi has received both praise and criticism from passengers and drivers alike in the Philippines. This study analysed the vehicle hailing preferences of taxi riders in Metro Manila, the Philippines, based on participation intent, and determine whether e-hailing applications are disrupting the current Philippine taxi industry using the Disruptive Innovation Theory as the study framework. Using a descriptive method of research, a total of 55 purposively sampled taxi riders participated in the survey. Results revealed that e-hailing applications are more favoured by passengers but only by a small marginal difference. Additionally, the e-hailing applications have failed to satisfy the conditions of being a disruptive innovation. Future studies may focus on the effects of the newly legalized e-hailing services on the public transportation system in the country using a larger sample size and different milieus, whether in the Philippines or overseas. In conclusion, the study argues that while e-hailing applications seem to disrupt the street-hailing industry, the industry's recognition of the needs of drivers and passengers and resultant innovation can give it a much-needed second wind.

Keywords: *e-hailing applications, disruptive innovation, Philippine traffic, public transportation*

1.0 INTRODUCTION

Philippine traffic has been described as being one of the worst in the world (Numbeo, 2015). The daily commute may be described as an exercise in lowering expectations and searching for equanimity, as commuters brave long queues for the light rail and monorail transit, squeeze between crammed buses and jeepneys, and struggle to find a single taxi when it is raining. In order to survive "traffic-geddon", commuters try to find more creative ways in coping with long hours of travel time.

It was not long before technology began enmeshing itself in traffic management and public transport mobility. The introduction of e-hailing applications in the Philippines in 2013 can be interpreted as a step towards addressing the perennial problems of transportation in the metropolis. Although not the most popular mode of public transportation in the Philippines in comparison to trains and jeepneys, the taxi

industry has been one of the top modes of transportation in the country for more than 50 years (Rayle *et al.*, 2014).

Even so, recent years have seen the industry struggling to build an admirable reputation. Negative experiences are immediately posted on Facebook and at times go viral. Fifty years is enough time to call for innovation, with Uber's CEO Travis Kalanick affirming this by saying that technology is the driver for a long-overdue disruption of the taxi industry (Stone, 2014).

Grab, EasyTaxi, and Uber, now classified as Transportation Network Companies (TNCs) by the Philippine Land Transportation Franchising and Regulatory Board (LTFRB), are becoming familiar names among Filipino commuters for introducing a new and technologically savvy approach to transportation, addressing the need for fast, flexible, and convenient mobility that the current taxi industry fails to meet (9 News and Current Affairs, 2015). However, not everyone is pleased, particularly with ride-sourcing

applications like Uber and Tripda. Street-hailing taxi operators from the Philippine Taxi Operators Association (PTOA) are calling for regulation and a level playing field.

The study sought to identify passenger motivations for hailing taxis either on the street or with the use of technology. It also sought to ascertain if e-hailing is indeed a disruptive innovation, given the parameters of Christensen's Disruptive Innovation Theory.

2.0 METHODOLOGY

Fifty-five purposively sampled riders aged from 18 to 24 years old were surveyed, with a view to comparing participation intent in preferring a certain means of hailing a taxi. Time, funding, and administrative constraints prevented the researchers from using a larger sample size. As such, the decision to concentrate on a small youth segment was made. While external validity may not be expected from this small sample, future studies can certainly fill this gap. In the interest of maintaining internal validity, the research concentrated on participation intent, in the form of identifying passenger motivations, and evaluating the assertion that e-hailing is a disruptive innovation.

Respondents were asked to indicate negative experiences in hailing a taxi in order to assess the current situation of the taxi industry. Respondents were also asked to indicate their motivations in preferring a certain kind of hailing service to determine the strengths and areas of improvement of both hailing means. These motivations include safety, cost, convenience, unavailability of public transport alternative, recommendation from peers, reputation, and online reviews. Results were then compared to the criteria in being considered a disruptive technology.

The opinions of those who experience public transportation first-hand should be considered in solving the problems of public transportation. To buttress the findings from the survey and the literature, unstructured interviews with eight of the respondents, the regional directors of the three e-hailing applications, the president of the Philippine Taxi Operators Association (PTOA), and a Grab peer were carried out.

3.0 RESULTS

The negative experiences of the respondents in taking street-hailed taxis and the motivations of the respondents in choosing both street-hailed and e-hailed taxis are discussed in this section.

3.1 Negative Experiences in Street-Hailing

Table 1 below summarizes the multiple responses of the sample in regard to their negative experiences in taking street-hailed taxis:

Table 1: Negative Experiences in Taking Street-Hailed Taxis (MR=55)

Reason	N
Refusal to Convey	36
Non-usage of taxi meter	31
Unsafe Driving	23
Sanitary Condition of Taxi	19
Rude/Unprofessional Taxi Driver	18
No Negative Experience	9
Unfranchised Taxi	5
Harassment	2
Other	2

Based on the survey, the top three negative taxi experiences in taking street-hailed taxis are refusal to convey, non-usage of taxi meter, and unsafe driving. These are issues of convenience and safety, and happen to be consistent with the findings of a 2014 Land Transportation Franchising and Regulatory Board (LTFRB) publication. According to the agency, the top three reported complaints are: (1) refusal to convey; (2) contracting passengers; and (3) rude behavior of drivers (Mendoza, Ko, & Mannipon, 2015).

The top complaints can be attributed to the meagre income of a traditional taxi driver. A taxi driver on average earns up to P160,000 annually, compared to P309,109 for taxi operators. The traffic conditions in the Philippines make it harder for taxi drivers to resist imposing higher prices on their passengers because of the pressure in reaching the "boundary", a daily payment due to the operator from the driver. This amount, which ranges from PHP1000 to PHP2000, must be remitted to the operator; any amount in excess of the "boundary" then becomes what can be considered the driver's net pay (Hall & Krueger,

2015). Because of innovation, e-hailing applications have become more popular for addressing the three major complaints by providing quality service through effective driver training, and providing benefits and sufficient compensation to ensure driver satisfaction (Brown, 2013).

Five of the respondents have experienced riding “colorum” taxis, vernacular for vehicles used for public transportation that do not have a legitimate franchise. In the Philippines, there are 25,000 taxis operating in Metro Manila, with 7,000 of these having no franchise. In an interview, one of the respondents has mentioned that the prevalence of these taxis reflects the failure of the Land Transportation Franchising and Regulatory Board to properly regulate the industry. This opens the question as to whether the LTFRB can handle regulating these e-hailed taxis when they cannot properly regulate the present street-hailed taxi operators.

On the other hand, nine respondents claim to have had no negative experiences yet. According to Attorney Jesus Suntay, the President of the Philippine Taxi Operators Association, it is unfair to compare the number of negative incidents from street-hailed taxis who have accumulated more complaints in its 50 years of services to the number of incidences from e-hailed taxi drivers who have only been in the country for less than three years.

3.2 Taxi-Taking Motivations

Table 2 below presents a comparison of the motivations of the sample in regard to taking street-hailed and e-hailed taxis.

Table 2: Taxi-Taking Motivations (MR=55)

Reason	Street-Hailed Taxis	E-Hailed Taxis
Safety	19	27
Convenience	23	24
Reputation	3	16
Peer Recommendation	5	10
Lack of alternative	15	9
Cost	18	5
Online Reviews	2	4
Other	1	3

TNCs employ several strategies to make their services more attractive to both the passenger and their partners. Passengers book the car, track the vehicle as it reaches its location, rate the service after the ride, and automatically compensate the driver through credit card (Glass, 2015). No tipping is required. To put it simply, the service revolves around three benefits: convenience, safety, and seamless experience.

As expected, convenience and safety have led the respondents to prefer e-hailing. In terms of safety, 27 respondents stated that they feel safer in riding e-hailed taxis. Respondents mentioned that they have used e-hailing applications especially during late hours because the tracking system can be shared to significant others to monitor the ride. A recent study conducted by Glass (2015, in Li & Zhao, 2015) shows a decrease of drunk-driving incidents because of the presence of e-hailing applications. The study names e-hailing applications as “lifesavers”, as they provide designated drivers instead of having to drive themselves home drunk and increasing the risk of accidents (Li & Zhao, 2015).

Safety is also attributed to the rigorous screening process the drivers undergo before being designated an e-hailing taxi driver. Country managers take pride in their selection process and state that only the best drivers with the best cars are chosen (Mendoza, Ko, & Mannipon, 2015).

Moreover, the review system of these applications provides for an increased sense of accountability and safety for both driver and passenger. The companies’ respective management teams monitor, organize, and manage these review systems (Nuzzi, 2014).

Even so, the issue of safety still remains under debate, as the range of safety issues a customer may experience remains the same, irrespective of the means of hailing. Stories of negative experiences from street-hailed taxis are found across social media. Incidences of rape and even death have occurred in US and India from e-hailed taxis. Even accessing personal customer or driver information has sparked debate over privacy especially when a stalking incident has been posted online by a woman who has been photographed prior to meeting the Uber driver (Racoma, 2013). The alarming thing is that Uber distanced itself from the issue claiming that these incidents happened when the accused was not

servicing as an Uber partner. The street-hailing industry and LTFRB is just as bad; out of 3,000 complaints on taxis forwarded to the LTFRB in 2014, only 193 cases were resolved (Mendoza, Ko, & Mannipon, 2015).

In terms of convenience, both e-hailing applications and street-hailing cabs are able to deliver. Fifteen respondents prefer street hailing especially when there is no other available mode of transportation suitable to them especially when it is raining. When there is a high supply for street-hailed taxis, respondents believe there is no reason to spend more by turning to e-hailing applications.

Compared to the other two e-hailing applications, Uber still has a supply issue on account of the lack of driver partners, especially when the passenger is coming from a locale far from the city center (Oxford Business Group, 2014). Uber solves this supply and demand problem by implementing surge pricing, which gives incentives for new drivers to join as an Uber partner (Brown, 2013). This surge pricing, however, is also the reason why passengers prefer cheaper alternatives. While surge pricing is not present in street-hailed taxis, some drivers opt to contract or refuse passengers during peak hours.

Consequently, a recommendation for street-hailed cabs can only go so far because of driver-passenger anonymity or the absence of knowledge regarding the driver's reputation (Brown, 2013). Even so, social media networks have become platforms for consumers to review and complain about traditional taxi services and compare these to the e-hailing system. Traditional taxis in the Philippines already have a bad reputation as people generalize and sensationalize cases of negative street-hailed taxi experiences (Hall & Krueger, 2015). When a taxi driver is named a "good Samaritan" for returning a big sum of cash belonging to a passenger, the case is acknowledged and applauded, yet subsequently forgotten. However, when a negative isolated incident involving a driver is brought to light, the whole street-hailing taxi industry is negatively involved.

Behind the wheel, e-hailing applications have affected drivers positively. The motivations for drivers to partner with these services include having better income and flexibility (Brown, 2013). Uber provides drivers with health

insurance coverage. Additionally, e-hailing taxi drivers receive more income from additional booking fees, which also have the effect of minimizing the pressures associated with "boundary" fees (Hall & Krueger, 2015). In the interview with the Grab driver, he stated that what he liked most about the services is the boost in profit from the booking fees, which also leads to him finishing work earlier once he meets his personal profit goal for the day.

Other responses include the role of novelty in preferring the services of e-hailing applications. One respondent also mentioned that his choice of street-hailing is usually influenced by whoever among his friends or peers are to share in defraying the fare.

Even with the advantage of e-hailing cabs based on participation intent, the survey results show negligible difference in preferences, with 28 passengers preferring e-hailing and 27 preferring street-hailing.

Respondents still recognize the same level of convenience and safety from street-hailed taxis and treat cost as the main motivation for preferring the traditional service. On the other hand, respondents clearly do not mind patronizing e-hailing taxis even with the LTFRB and PTOA putting pressure on these TNCs as long as passenger needs are met. This can be supported by the MiniMax Theorem, a rule used in decision theory, where decisions are made based on maximum returns over minimum costs (Agius, 2015). Survey results show that e-hailing applications have started to dominate the taxi industry even after just two years in the country. Several countries have yet to set proper regulatory policies for these applications. In October 2014, Uber was placed under scrutiny after some of its partners were caught in an LTFRB sting operation against taxis that operate without franchises. Additionally, the PTOA is protesting against Uber, claiming that the latter is operating illegally and undercutting traditional taxi services. PTOA defended its actions by saying that it was concerned over the safety of passengers (Mendoza, Ko, & Mannipon, 2015).

Because of these, Uber has been dubbed as a disruptive innovator that has been responsible for leading the e-hailing industry ever since its establishment in the United States (Yu & Hang, 2009). E-hailing applications like Grab and

EasyTaxi are but followers of Uber's business model.

3.3 E-Hailing as Disruptive Innovation

Disruptive Innovation is a theory introduced by Clayton M. Christensen, who stated that a disruptive innovation is a powerful means of developing new markets and providing new functionality that may disrupt an existing market (Godelnik, 2014). To most, these e-hailing applications disrupt traditional taxis services because the existing market is losing money to these disruptors. PTOA claims that its members have lost around 20% of their income (Mendoza, Ko, & Mannipon, 2015).

However, even if these e-hailing applications have brought a fundamental change in the taxi industry and gotten the ire of taxi operators and LTFRB, these services have failed to meet the criteria for being a disruptive innovation.

The first criterion is that a disruptor must follow a simple, convenient, and affordable approach to something that people usually do (Toppa, 2015). The second criterion is that the innovator must have a business model that is hard to replicate and offers services that are new to the market. The use of GPS in e-hailing helps these applications in simply and cost-effectively managing a real-time network of cars. Aside from providing road directions, the system also contributes to the safety and convenience of both passengers and drivers. The third and fourth criteria are affordability and a business model that takes on "asymmetries of motivation", meaning the disruptor is attacking markets that existing companies are motivated to exit or ignore because they are unprofitable or too small to matter (Toppa, 2015).

E-hailing taxis are able to satisfy the first two conditions. In fact, these applications market their services precisely by using the first two conditions as bases. Consistent with the survey results, simplicity and convenience are what customers prefer in the service. However, it obviously fails to satisfy the third condition of affordability, given that the reason why survey respondents prefer street-hailed cabs is that they refuse to pay the relatively expensive booking fee. Surge pricing does not help the affordability argument either.

The criterion in regard to asymmetries of motivation is not met, as e-hailed taxi drivers target the very same market that street-hailed taxi drivers continue to service. E-hailing applications fail to satisfy this criterion completely since the LTFRB and PTAO are far from ignoring their existing market. The street-hailing industry has been present in the country for over 50 years and the industry is far from being considered as small. No attempt is seen to exit said market; in point of fact, what is seen is an attempt to protect market share by trying to drive TNCs out.

The safety and reputation systems offered by e-hailing taxis are considered novelties for most taxi commuters, with respondents regarding safety and convenience as difficult to ensure in street-hailed cabs. Even so, the fact that several other applications are competing with each other makes this business model easy to replicate. It can be said that Grab and EasyTaxi's business model is patterned to address the gaps of Uber in the Asian market, especially with the weaknesses in the payment system and partnering with existing taxi fleets. They even have similar taglines. The fact that LTFRB has stated that it has no issues with Grab and EasyTaxi makes it easier for the two services to replicate Uber's model because regulation supports these services. With smoother regulation, similar services are more likely to appear in the coming years. Perhaps by then, the fourth criterion will have been met.

Even the respondents are split in their preference because of several considerations when hailing a taxi. In fact, respondents were quick to say that the traditional taxis are just intimidated by new players in the industry, even when passengers are still willing to participate in street-hailing.

Based on these premises, e-hailing applications, in their current state in the Philippines, cannot yet be considered a disruptive innovation.

4.0 RECOMMENDATION

Based on these premises, e-hailing applications, in their current state in the Philippines, cannot be considered a disruptive innovation just yet. There is limited literature about the e-hailing industry in the Philippines as it is a relatively new service.

Most of the literature in this study comes from foreign countries where e-hailing applications have met with success, even as at the same time they have received criticism. It is recommended that future studies consider other variables in evaluating participation intent. Apart from the evaluation of gender differences, income disparities, and driver-partner characteristics, among others, it is also recommended that future studies look at possible disruption in different milieus, whether in the provinces of the Philippines or in other countries. Further studies on how the regulation of these services will impact commuting behavior in the Philippines will certainly be useful, as are future studies on the effect of these services on other modes of transportation in the Philippines. A larger sample size, one that includes a wider range of respondents' ages, is also recommended, given that the present study concentrated on a narrow youth segment.

5.0 CONCLUSION

The Philippines has become the first country in the world to roll out a legal framework to regulate e-hailing services. Philippine Department of Transportation and Communications Secretary Joseph Abaya has acknowledged that technological innovations provide for safer and more convenient commuting options, as well as address the increasing demand for mobility because of rapid mobilization.

While this may pose a threat to the street-hailing industry, Filipino commuters still use their services out of tradition and practicality. The findings suggest that the street-hailing industry can still take the fight to the e-hailing services. The algorithm of these applications is not as fit in Manila as it is in Singapore due to traffic conditions (Alba, 2015). This should be taken as an opportunity to capitalize on 50 years of experience, the sort that can still manage to outsmart an algorithm hobbled by the country's poor Internet speed. Once Wi-Fi penetration improves and regulations are finalized, e-hailing applications are foreseen to enjoy increased patronage because it will have become more convenient for people to use.

Convenience is the primary motivation for passengers for those who prefer either street-hailed cabs or e-hailed cabs. While e-hailing cabs easily provide this convenience, it is up to the traditional taxi drivers, most especially the operators, to empower drivers in order to meet the top needs of customers, an experience that is fast, convenient, and seamless. By failing to reinvent themselves, they may very well be the very ones to allow e-hailing cabs to truly become a disruptive innovator.

With the rise of these services, the taxi industry can be reintroduced as a modern and attractive alternative to public transportation. Even so, Grab, EasyTaxi, and Uber fail to be considered as disruptive innovators based on the three major criteria. This is good news for the street-hailing taxi industry.

What the street-hailing industry can learn from e-hailing applications is that it is the business model of these e-hailing applications that makes them work. While the regular taxi operators continue to protest against these innovators, they fail to recognize and prioritize the needs of both their drivers and customers. They are merely wasting opportunities to compete in the level playing field that now includes Uber, given LTFRB regulation. There is now much more room for action because after all, the e-hailing industry should not be considered as disruptive. Instead, it is simply an innovation (Oxford Business Group, 2014) that serves to help improve mobility, complement alternative modes of transportation, and attempt to solve problems concerning traffic congestion in order to achieve a sustainable system of transportation.

REFERENCES

- Agius, A. (2015, February 11). Uber – a brilliant example of technology disruption: Taxi terrorists and ideological rapists. *Reckoner*. Retrieved from <http://reckoner.com.au/2015/02/Uber-brilliant-example-technology-disruption>.
- Alba, D. (2015, May 11). The Philippines just made Uber legal everywhere. *Wired*. Retrieved from <http://www.wired.com/2015/05/Uber-philippines>.

- Brown, M. (2013). Uber — What's fueling Uber's growth engine? *GrowthHackers*. Retrieved from <https://growthhackers.com/companies/Uber>
- Glass, K. (2015, January 31). Study: Uber and ridesharing reduces drunk driving. *TownHall*. Retrieved from <http://townhall.com/tipsheet/kevinglass/2015/01/31/study-Uber-and-ridesharing-reduces-drunk-driving-n1950766>.
- Godelnik, R. (2014, June 04). Is it time to stop calling Uber a disruptive innovation? *Triple Pundit*. Retrieved from <http://www.triplepundit.com/2014/06/time-stop-calling-Uber-disruptive-innovation>.
- Hall, J. & Krueger, A. (2015). *An analysis of the labor market for Uber's driver-partners in the United States (Report no. 587)*. Princeton, NJ: Princeton University. Retrieved from <http://dataspace.princeton.edu/jspui/handle/88435/dsp010z708z67d>.
- Li, C. & Zhao, J. (2015). *Humanizing travel: How e-hail apps transform stakeholder relationships in the U.S. taxi industry (Report no. 15-0680)*. Washington, DC: Transportation Research Board Business Office: of the National Academies.
- Mendoza, R.U., Ko, A., & Mannipon, J.J. (2015). *Is LTFRB Uber-reacting?* Manila: Asian Institute of Management Rizalino S. Navarro Policy Center For Competitiveness.
- Numbeo. (2015). *2015 Traffic Index Per Country*. Retrieved from http://www.numbeo.com/traffic/rankings_by_country.jsp.
- Nuzzi, O. (2014, March 28). Uber's biggest problem isn't surge pricing: What if it's sexual harassment by drivers? *The Daily Beast*. Retrieved from <http://www.thedailybeast.com/articles/2014/03/28/Uber-s-biggest-problem-isn-t-surge-pricing-what-if-it-s-sexual-harassment-by-drivers.html>.
- Oxford Business Group. (2014, April 28). *The Philippines is set to continue expanding 3G and 4G LTE coverage*. Retrieved from <http://www.oxfordbusinessgroup.com/news/philippines-set-continue-expanding-3g-and-4g-lte-coverage>.
- Racoma, J. A. (2013, August 27). What could Uber's strategy be as it drives to Manila? *E27*. Retrieved from <http://e27.co/what-could-Ubers-strategy-be-as-it-drives-to-manila>.
- Rayle, L., Shaheen, S., Chan, N., Dai, D., & Cervero, R. (2014). *App-based, on-demand ride services: Comparing taxi and ridesourcing trips and user characteristics in San Francisco*. Berkley, CA: University of California Transport Center (UCTC).
- Stone, B. (2014, February 20). Invasion of the Taxi Snatchers: Uber Leads an Industry's Disruption. *Bloomberg Business*. Retrieved from <http://www.bloomberg.com/bw/articles/2014-02-20/Uber-leads-taxi-industry-disruption-amid-fight-for-riders-drivers>.
- Toppa, S. (2015, May 12). Uber is now legal everywhere in the Philippines. *Time*. Retrieved from <http://time.com/3854958/Uber-legal-philippines-ride-hailing>.
- Yu, D. & Hang, C. C. (2009). A reflective review of disruptive innovation theory. *International Journal of Management Reviews*, 12, 435-452. <http://doi:10.1111/j.1468-2370.2009.00272.x>.
- 9 News & Current Affairs. (2014, December 04). News.PH Episode 105: Regulation of Uber, Grab and EasyTaxi. Retrieved from https://www.youtube.com/watch?v=RasoJSg_2Gw.