GRABTAXI: A TAXI REVOLUTION IN THAILAND

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Abstract - The study investigates the business process and business model of GRABTAXI. The paper also discusses how the company implemented strategies to gain competitive advantages. The data were derived from the analysis of secondary data and the in-depth interviews among the staffs, taxi drivers, and key customers. The findings indicated that the company’s competitive advantages came from being the first mover, emphasising the ease of use and tangible benefits of the application, and using network effect strategy.

Keywords - Taxi, Mobile Application, Thailand, Taxi Application.

I. INTRODUCTION

Taxis are considered one of the primary modes of transportation in any metropolitan area. In Thailand, there are 109,518 registered taxis, and more than 106,141 taxi drivers or almost 97% of all taxi drivers provide service in Bangkok, the capital of Thailand (Wikipedia, 2015). Taxi drivers in Thailand are notorious for bad service, such as cheating on customers, rejecting customers, or having bad manners (Thailand). In addition, most women do not want to use a taxi alone. Nonetheless, taxi drivers have been requesting higher compensation. Since 2007, there has been an explosive growth of smartphones in Thailand, and there has been an increasing number of mobile application users among iPhone and android users. Furthermore, many mobile applications facilitate the use of taxi services, such as UBER, GRABTAXI, and All Thai Taxi. More people in Thailand are more willing to use taxi mobile service applications rather than the traditional method because the mobile apps provide comfort, security, and ease of use.

II. LITERATURE REVIEW

Expectancy-Value Theory

The expectancy-value theory was created to attempt to understand the underlying motivation to change the behavior of individuals. The theory explains why users accept or reject information technology. The major critical component is “Behavioral Intention” (BI), which is the denominator for a particular behavior: “Individuals choose behaviors based on the outcomes they expect and the values they ascribe to those expected outcomes” (Borders, Earleywine, & Huey, 2004) (p. 539). Expectancy is “the measurement of the likelihood that positive or negative outcomes will be associated with or follow from a particular act” (Mazis, Ahtola, & Kipple, 1975) (p. 38). The intensity of the expectancy and the value related to the outcome determine the intensity of the tendency to act or use. (Mazis et al., 1975) (p. 38).

Theory of Reasoned Action (TRA)

The TRA is based on social psychology literature and improves the predictive and explanatory function of the expectancy value theory. It is a model which states that “a person’s performance of a specific behavior is determined by his or her BI to perform the behavior ” (Davis, 1989). Eveland (1986) observed that “ultimately, technology transfer is a function of what individuals think—because what they do depends on those thoughts, feelings and interests” (Eveland, 1986) (p. 310).

The TRA, shown in the figure above, states that a person’s beliefs and evaluations lead to his/her attitude (A) toward the behavior, which in turn leads to Behavioral Intention. Normative beliefs and motivation influence the subjective norm (SN), which also influences BI. The SN is considered to be the influence that others will have on the acceptance decision of users, and acceptance may be affected by peers, subordinates, or superiors. Beliefs in the model are classified as “the individual’s subjective probability that performing the target behavior will result in consequence i” (Davis, 1989) (p. 984). BI is determined by the person’s attitude (A) and SN concerning the behavior in question (Davis et al., 1989). Attitude toward behavior is a factor of the individual’s “salient beliefs (b i ) about consequences
of performing the behavior multiplied by the evaluation (e_i) of those consequences” (p. 984). SN is influenced by the user’s normative beliefs (nb_i), which are the perceived expectations of specific individuals and groups, and the user’s motivation to accept these expectations (Davis, 1989).

**Technology Acceptance Model**

The TAM improves on the TRA with the objective “to provide an explanation of the determinates of computer acceptance that is general, capable of explaining user behavior across a broad range of end-user computing technologies and user populations, while at the same time being both parsimonious and theoretically justified” (Davis et al., 1989, p. 985). The major difference between the TAM and TRA is the omission of the subjective norm (SN) component of the TRA. Davis (1989) stated that “[i]t is difficult to disentangle direct effects of SN on BI from indirect effects via A” (p. 986). The similarity between the TRA and TAM is that both believe that BI is the critical factor in determining the actual usage of technology. The TAM is shown in the Figure below:

![TAM Diagram](image)

**Network Effect**

In network economics, the cost of adding any user to the network is insignificant, while the gain in value is relatively much larger. The Internet itself is an example of a successful implementation of network economics. The more people participate, the more valuable and essential a commodity it is. If a company were to provide a service through the Internet such as an application, the cost to the company of adding another user would be small (as the software infrastructure or application is already built), and the more users that are signed up, the more profit is made (Shapiro & Varian, 1999).

**III. RESEARCH OBJECTIVES**

The objective of this paper was to investigate GRABTAXI’s business model and how GRABTAXI creates competitive advantages.

**IV. RESEARCH METHOD**

This is a qualitative, narrative study. The data collection consisted of an interview, focus group study, document analysis, and the recording of the researcher’s observations. The qualitative data were analyzed using the thematic coding method. Atlas.ti was used to analyze the data. The themes were identified based on the pattern of data.

**Company’s Background**

GRABTAXI was founded by Anthony Tan and Tan Hooi Lin. It is a mobile e-hailing application available in Malaysia, Singapore, Thailand, Vietnam, Indonesia, and the Philippines (Wikipedia, 2015). The application provides a booking service and dispatch platform for the taxi industry. The vision of GRABTAXI is to revolutionize the Southeast Asian taxi industry by making it a safer and more efficient means of transport. In March 2015, the number of registered taxis in the GRABTAXI network reached 75,000, and the number of mobile app users increased to 3.8 million users in the Southeast Asia region (Tay, 2015). The app is available from both Android google play, Blackberry World, and Apple iOS.

**How GRABTAXI Works**

Using the GPS technology with the mobile application helps the passengers that like to use taxi services to be able to call for a pick-up service. To provide a safe environment, the app provides the “Track My Ride” system, which keeps track of the journey. GRABTAXI finds the nearest taxi of the passenger’s current location and the system show the drivers nearby that are interested in the booking. The application displays information such as the driver’s name, car plate number, phone number, and estimated fare.

The application utilizes GPS (Global Positioning Systems) to identify the nearest taxi and the shortest route direction to the customer’s location. The system also tracks the route to provide safety to the customers.

**V. BUSINESS PROCESS**

There are 2 major parties using the GRABTAXI application as follows:

1. **Taxi Drivers**

Each driver that would like to be a GRABTAXI driver has to visit the head office to register and submit the required documents. Each driver will receive a credit of 200 Baht (approximately $6) after
registration as a welcome gift. Credit will be redeemed by 7 Bath with each passenger pick up. Everyone has to top up to maintain credit of not lower than Baht 7, or else the driver will not be able to pick up the passenger (they will not be listed in the application). Every driver registered with the GRABTAXI application appears on the location map so that passenger can see the driver’s location. If a driver would like to pick up a passenger, he or she has to confirm with a booking application. Then, the driver can see the passenger’s contact number. After the trip is finished, the driver has to confirm that he or she has already taken the passenger using the application.

2. Passengers
First, a passenger has to download and register his or her personal information, such as name, email, and contact number in the mobile application. Then, the passenger receives an activation code on his/her mobile phone to ensure the authenticity of the phone number. When the passenger would like to book a taxi, he or she can just select the pick-up and drop-off location, and then wait for a taxi to confirm the booking.

The application then finds the taxi driver nearest the pick-up location, and then sends the driver information, i.e. full name, photo, car plate number, and contact number. Every booking costs 25 Bath ($0.7) in addition to the taxi meter rate. The reason for the booking fee is for drivers to be able to cover their expense driving to pick up passengers at the pick-up locations.

In addition, GRABTAXI provides safety, speed, and accountability, as the best taxi booking service in Bangkok. For example, when it is raining, the passengers do not need to go outside to find taxis. The fairs need to be paid to taxi drivers directly after each service.

Strategies
1. Providing Quality Service
The core value of GRABTAXI is “speed, safety and certainty.” The system provides the driver’s detailed information such as the driver’s name, phone number, plate number, and expected fare. In addition, the customer can provide feedback by rating the driver in the app and the result is shown through social media. This holds the taxi drivers accountable for their actions. Moreover, the app also provides flexibility of payment by offering both cash and credit card payment (Toyad, 2015; Tung, 2015).

2. Tapping Into a Large Customer Base
GRABTAXI successfully utilizes mobile application through smartphone platforms. In addition, it has the advantage of being the first mover in this business. The application provides coverage for Southeast Asian countries including Singapore, Malaysia, the Philippines, Thailand, Vietnam, and Indonesia. The entire population is almost 500 million people. Most of the people in this region live in metropolitan areas. Moreover, GRABTAXI has integrated Grabcar, a premium service application that enables passengers to book a limousine service in its existing mobile app to maximize its customer database (Tung, 2015).

3. Market Positioning
The mobile application is tailored to only people in the Southeast Asian region. This means that the company can deliver specific needs to the customers in the region (Tung, 2015).

Competitors
There are many competitors and substitute products in the taxi industry. The major competitors are Easy Taxi and UBER. Easy Taxi, established in 2011, provides a similar service as GRABTAXI. However, it was not popular in Southeast Asia because of the lack of marketing and promotions. Nevertheless, based on the interviews with the taxi drivers, many taxi drivers that have experienced the application confirm that the system is easy to use. Another competitor is UBER, established in 2009. Uber is a global company operating in North America, Central America, Europe, and Asia Pacific. UBER focuses on limousine services. Another competitor is All THAI TAXI, established in 2015. This application provides premium taxis with cars such as Toyota Prius. However, the application was only available in the Android operating system.

Findings
Due to much dissatisfaction with the taxi driver service in Thailand, such as lack of a service-mind, rejecting picking up a passenger, security issues, and so on, these reasons could have affected passengers’ point-of-view, especially foreigners as Thailand is one of the most notable tourist destinations. According to the research in conducting a survey of 140 samples, most of the passengers reported that they do not need to worry if the taxi drivers will pick them up or not. The application provides a guaranteed service. The next issue is security, and the GRABTAXI application offers real-time location services and customers can share this information with their friends or family members. Especially, many female passengers report that they feel safer when using GRABTAXI. Furthermore, GRABTAXI provides many payment options for the customers. The customer can choose to pay cash to the drivers directly or they can pay with credit cards. According from the interview with the GRABTAXI staff, they reported that the number of application downloaders has been increasing gradually, both taxi drivers and passengers. Especially taxi driver registration numbers have greatly increased—from 700 to over 12,000 from October 2014 to April 2015. GRABTAXI expects that this number will grow continuously due to brand awareness, partnerships, ease of use, and security.
However, the GRABTAXI application still has many problems and limitations. The interview results indicated that most of the taxi drivers do not have sufficient skill or education to use the technology, and there are therefore many constraints due to this issue. For instance, taxi drivers cannot use the application to top-up the credit by themselves since they cannot understand how to navigate the application. As a result, they need to visit the headquarters every time they have to top-up their own credit. This issue also has led to a decline in the number of taxi drivers using this application. In addition, there are many taxi drivers that have never purchased a smartphone or even used one before. Furthermore, many customers report system failure and location service failure in the application.

Marketing Strategy
GRABTAXI has been promoting itself using social media such as Facebook, Twitter, and other online advertisements. Most of their promotions are in the form of discounts provided to passengers. According to the interview, this method went well at the beginning; however, it led to the company’s net loss since GRABTAXI receives only 7 Bath ($ 0.2) per trip. The revenue could not cover the operating expenses. Moreover, those reached customers only used the application when they got the discount code.

VI. DISCUSSION
According to the findings GRABTAXI has created a competitive advantage, not only from being among the first movers but also because of its ease of use and the usefulness of the application. This is congruent with the technology acceptance model (TAM). The company also has used the two-sided network effect strategy to attract both taxi drivers and passengers that use smartphones. GRABTAXI began the network effect from the taxi drivers by giving them incentive and motivation to join the network. In the beginning, the drivers had no expense in joining the network. Once GRABTAXI had enough taxi drivers in its network, it was able to attract passengers that use smartphones.

Recommendations
Although many taxi drivers can see an obvious benefit in joining GRABTAXI, GRABTAXI should provide training for the taxi drivers so that they do not have to travel to the headquarters every time they face problems. In addition, the application interface can be made easier to use. Furthermore, for the taxi drivers that do not have a smartphone, GRABTAXI should offer one. In addition, a business model like GRABTAXI is no longer “new,” and the company should introduce a swing cost in the form of “points” or “rewards” to ensure that the drivers and customers continue using the application even when there are many emerging competitors.

CONCLUSIONS
This case research describes the business process and business model of GRABTAXI. The success of the application comes from achieving perceived ease of use and perceived usefulness among customers through the features and quality of the services. The company uses a niche strategy by focusing only on customers in the Southeast Asia region. The application also utilizes the network effect strategy by tapping into a large customer and taxi-driver base.

REFERENCES