MyCarRental.my: A Conceptual Solution

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Abstract— **Due to the increasing public transport fee, the public tend to rent a car, since the rental fee is not controlled by the government and have no major hiking. But problems occur when there is bias, and limited contact access of car owners by customers. Car owners do not have platforms to advertise their cars. Emergency customers do not have their services rightly prepared. Certain specific methodology used to study and obtain data regarding the current car rental services industry in Malaysia. Literature reviews were conducted to study the current similar systems from all over the world. A web based car rental platform, called MyCarRental.my, is proposed to handle the car rental issues, challenges, supply, and demand in Malaysia. In proposing the MyCarRental.my conceptual solution, the Business Model Canvas (BMC) and Value Proposition Design (VPD) Canvas suite of tools were utilized.**

Index Terms—MyCarRental.my, MyMosqueNet2Cloud, MyMukim2Cloud, car rental platform

I. INTRODUCTION

The ringgit has lost more than 16 percent against the dollar this year, making it emerging Asia's worst-performing currency [4]. As the way to apply economically spending, people without their own transport tend to use public transport as their main medium. November 2015 will be the most disastrous month of the year when the government cabinet again announced the hiking price of public transport fees like Light Rail Transit (LRT) for both Putra and Star, and KL Monorel [5]. This situation again would affect tons of public transport consumers every day. To overcome this problem, people may have to rent a car since the rental rate is not affected from the mass fee hiking, and also the rate is not controlled or standardized by the government. Renting a car would be the major choice for the Malaysian people since they could accomplish many things that could not be done by the public transport. There are still places in Malaysia which have no access by the public transport providers. The Malaysian public is currently using conventional method of renting a car, by calling the owner to book the car and then

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pay the rent fee as requested by the owner. People without the contact number, or the newcomers, will be having difficulties in contacting the car rental owners. Thus, a web-based platform, called MyCarRental.my, would be proposed in this paper as a pain reliever in assisting the Malaysian public to choose and book their desired rental car timely. The implementation of MyCarRental.my would ease the public and at the same time boost the car rental business in Malaysia.

II. BACKGROUND

MyCarRental.my is an online web based system. It provides an online advertisement space for the car owner to promote their car. Car owner could advertise their car along with the car pictures, fees, and availability. Customer who want to rent a car could get a more specific and precise information regarding the car to be rented. They can choose their desired car from the car list available in the web page. They can also manage to plan their expenditure as the rental fee is displayed in the web site. This will help customers since most people nowadays are using an internet connected smartphones to access the web site through the smartphones. MyCarRental.my is focusing more to the all people around Malaysia especially for emergency customers, car rental consumers, car owners and other advertiser.

III. PROBLEM STATEMENT

The daily problem that car rental customers face is that they do not have the freedom to choose the desired rental car. Sometimes, with the conventional booking system, customers can only rent a car which the owner only has. They may need to contact other car owners to enlarge their car options. They may also rent the car with prices higher or lower than the other services. They may also get rental car with unsatisfied condition.

For car owners, without the use of MyCarRental.my, they may get trouble in promoting and advertising their cars. Things may get worse for the new owner to get involved in this business to standardize the rental fee since they have little references to refer from. With the current conventional method, their cars can only be advertised through WhatsApp group or through the other media social like the Facebook.

Public who want to immediately rent a car will face difficulty in getting the car on time. They could not send request to get the car immediately because there is no platform for them to do that. They still have to contact the car owner as same as the other customer in order to get the car, with a similar time period as the regular customers. There are high possibilities of the late car delivery.

IV. METHODOLOGY

For this paper, the methodology taken include literature review defining the population and target customers, distributing survey to the people about the rental car service in general, get the testimony from the customers and make an observation by comparing from the others. The observation method is conducted to observe the perception of the Malaysian public on the current conventional car rental service in Malaysia. People are being observed when they are doing a transaction with the services. Their behaviors are observed to obtain the rough information regarding the perception towards the currently implemented car rental practices. Another method used is interviewing people about the car rental service. Questions were asked on what actually customers want when renting the car, their expectations from the service and suggestion that can satisfy them. The third method used is to get the customer opinions and comments regarding the current car rental platform implemented overseas. Their comments and opinion were recorded and analyzed their true perception regarding the currently deployed online based car rental platform. Data collected from these procedure were then analyzed

V. LITERATURE REVIEW

Literature review refers to knowledge about particular subject area, and it helps to understand the application requirement and its functionality. Besides, this research can also help to find the similar application and fill the gap between these applications. There are many similar websites that are available online for this business.
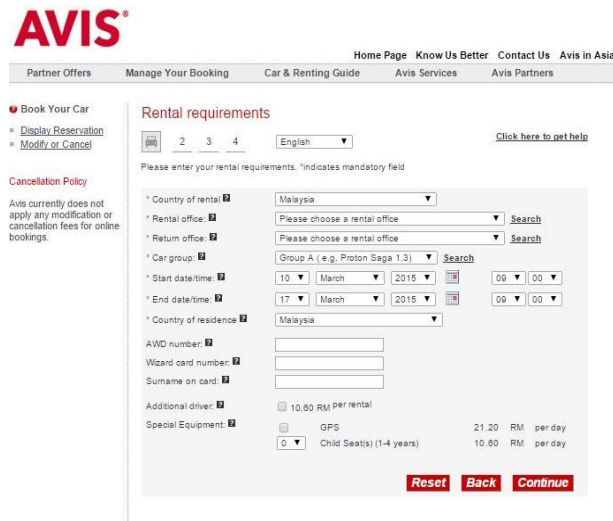

Figure 1: Booking Page of Avis

Avis Malaysia was established for business in 1972. It was started with the vision to build the best and fastest growing car rental business. All over the years, this vision still remains and Avis's people always provide their customers with their ultimate service. Nowadays, they already have 3 downtown offices and 3 airport counters all over Malaysia which are located in KL City Centre, Johor Bharu downtown office, KLIA airport, Penang Airport, Kuantan Airport, and

Headquarters at Glenmarie Shah Alam. [1]

Figure 2: Booking Page of Insas Pacific

Insas Pacific first opened its door in 1985. They provide long term hire, daily hire, self-drive and even chauffeur services too. Not only they offer car rental, but Insas Pacific also offers car hire services. Their targeted customers are located in major cities and airports throughout peninsular Malaysia. [2]

Figure 3: Self-drive package in Akasia Travel & Tours

Akasia Transportation is a local car Rental Company located in Malaysia and managed by Akasia Travel & Tours Sdn. Bhd. They provide Transportation Services comprising a

mix of Economy, Compact, Sedan, MPV, 4WD and Van. At Akasia Transportation, they make their customers as a priority to provide the best service and experience. [3]

VI. FINDINGS

From the research taken, a few crucial findings have been recorded and analyzed. There are certain limitations exposed by the current conventional car rental system that may proof that car rental online web platform idea is the solution to a problems. Research progress including surveying and observing the current online system that provide car rental services. A survey was also conducted on the car rental customer regarding their experiences on the conventional car rental services compared to the digital based one. This observation intended to study the feedback of customers towards the current conventional and digital car rental services in order to generate the best solution idea that could fulfill the limitation gaps between them.

The research question is to study the perception of the car rental customer to the current conventional car rental services in Malaysia. Observation and survey were taken action by the volunteer to the customers. Based from the result, data can be concluded that most of the customers in Malaysia especially in Kuala Lumpur are less satisfied with the conventional services. They demanded a specific web platform for the car rental services to be deployed in Malaysia due to several reasons. First reason is that with current conventional method, customers need to spend money on their phone to call the car owner to rent the car. During certain time, they got the wrong car or a car with a bad condition. There is less freedom for the customers to freely choose their desired car. With the implementation of a website which provide a car rental service, customers will have a more freedom to choose their desired car. There will be no bias offer from the car owner.

There is also an observation done to study the customer satisfaction towards the currently deployed web based car rental platform in the other country. There are certain limitations recorded from the customer regarding the online web based platform. Most customer feel annoyed with the login function that need the customer to register first in order to use the system. This feature is taking them a lot of times just to book a car, compared to the conventional one. People want to freely surf the page without needing to register themselves into the system, just to book a car.   This is among of the reasons why people still booking the car through conventional method, but deep in their hearts, they want to order the car through a single web platform to avoid bias

VII. CONCEPTUAL SOLUTION

MyCarRental.my is a web based platform, allowing the car owner to advertise their car, car rental customer to choose and book for the rental car in a single dedicated platform, providing an easy and fast response for an emergency customer, and also providing an online advertisement space for an advertiser to advertise their products. This platform could solve the current problems faced by the current car owner, customer, and also problems faced by the special request customer especially an emergency customer. The owner of the car can advertise about their car with full of details like owner name, office address, phone number, model of their cars that they have, the condition of the car, and the last one is the price. All of these are important for the customers in order for them to obtain pre-information regarding the car rental service, and also easier for them to make choose a specific car, also easy for them to reach the car owner. Moreover, for the customers, they need to display their name, phone number, their identity cards and their addresses, and so on. All of this is very important to the owner of the car to take an action if anything happen to car.

This system will provide an easy access for the desperate or the customer in emergency need of the car, to book the car. There will be a panic button, specially designed to be accessed by this kind of customer, to provide an instant car delivery. A group of car owner who agreed to provide this service will instantly make a car delivery to the emergency customer. Below are the proposed Business Model Canvas [Figure 4], Value Proposition Design for each customer segment [Figure 5, Figure 6, Figure 7, Figure 8], and the Environmental Map [Figure 9].

The system is designed especially for a specific group of customer segment, which are the consumer, car owner, other advertiser, and emergency consumer. A different and specific service could be provided to a focused customer groups. Value proposition for each customer is also specifically valued for each group. Car rental customer will have the opportunity to survey and choose the best car suited for them in the website. Customer can also got the chances to plan their financial efficiently since the rental fee for each car is displayed on the screen. They got to choose which car suits their financial condition efficiently. Car owner will have the chance to advertise their car in the web site. They are also got a better chance to get a customer in a short period when their car is advertised in a single specialized platform for car rental business. The system provides an advertisement space for the other businesses to advertise their products. Emergency car rental consumer will have the opportunity to alert the car owner about their emergency. Depending on the level of emergency, system will automatically alert the car owner. Discounts may be considered depending on the emergency.

This system provides automated services to each customer. Customers have to book for a car, advertise their car, and promote their products on their own. Customer can also use phone or request for personal assistant to assist them.

Key activities for this system are to provide a car rental web service platform. The system is to provide a single platform for the Malaysian public to rent a car.

To enable the system successfully, there are certain key resources that need to be fulfilled which are the cars, web page, web server, and the people who are willing to rent their car. Car owner are also the key partners in this solution.

The major costs in this solution is the web site maintenance cost, which involved the annual server rent fee and web site upgrade. This business solution gain revenue through various streams like are the usage fee paid by the car owner and also the advertising fee.

A value proposition design is then designed for each customer segment in the business model canvas. Car rental customer's main job is to rent the car. Their main task is to get

and rent their desired car. Certain undesirable favors could occur with the implementation of the old traditional conventional method of booking and renting a car. There is no guarantee or pre agreement that they will get their chosen car. Through this new concept of system, customer will be previewed with their chosen car to be rented. This solution may guarantee the best suited car for the customer. The proposed solution is to provide a list of car along with its current condition in the webpage for the customer to choose.

A car owner main task is to get advertised their car for to be rent. From the study through the value proposition design of the car owner, their main pain is when their car got no customers. In order to fulfill the owner's needs, this platform would be beneficial to them to advertise their car. The conceptual solution of the Malaysian Online Car Rental Platform can also provide space for the other products advertiser to promote their products. Their advertisement will be available to all of the user who visited the web site.

Emergency customers will face great difficulties in getting their car in a short time. Their pain is could not get the car in a short time, or worst, car is not available. Through this system, there is specialized function in the system to enable the system to alert the car owner to provide emergency services. Through this function, emergency customer could get their car in time.

The environmental map shows the external factors which have significant effects towards the business plan. Key trends shaping the business arena, such as technology innovations; regulatory constraints; social trends; and more. In this car rental business, online media social groups which implemented the same method as the online car rental platform could provide certain benefits to the business. An online notification technology also could be implemented in the system to alert the car owner. Other factors is the market forces. This factor highlight the key customer issues that happen in the car rental business. Most of the customer issue is the unsatisfied services provided by the car owner. Thus, through the implementation of the online car rental platform, this issue could be avoided since customer could do pre survey about the car to be rented by them. The other factor is the macroeconomics forces. In the business of car rental platform, the emerging public transport strategies planned by the local government will the one factor that could affect the car rental industry. The implementation of the Government Service Tax (GST) may also be among the macro trends, which enable this business to shape its modus operandi to cope with the current economic situation in Malaysia. The last factor is the industry forces. In the space of the proposed business plan of the car rental platform, other businesses which reside in this factor may be the other businesses which implemented the similar strategy as the proposed solution platform, like the other Customer-to-Customer (C2C) online platform such are the Mudah.my and the Lelong.my. This external actors in the C2C industry could give gain and pain to the proposed conceptual solution the Malaysian Online Car Rental C2C Platform.

Network of Mosque

Network of mosque is a concept proposed by the (Hamid et al., 2013) to eradicate poverty in Malaysia. The system named

MyMosqueNet2Cloud Collaborative System is a proposed conceptual collaborative based on the deployment of the Quadruple Helix Model (QHM), to create a single database about the poor families in Malaysia, through collaboration with the other government agencies in Malaysia. This proposed collaborative inter-organizational system is to enable a consolidated approach for government agencies, NGOs, the private sector and individuals in building up a single and trusted national database based on the poor families in Malaysia (Hamid et al., 2013). The major purpose of the proposed system is to prevent any duplication of data, and will enhance the effort to provide better quality life to the poor families in Malaysia through the government led programs such as eKasih and 1Azam. In other words, initiatives like MyMosqueNet2Cloud Collaborative System and MyMukim2Cloud Collaborative System (Saleh et al., 2013) could ease the efforts of the Malaysian government to provide services to the poor families by acting as a platform of database about the poor families in Malaysia.

One of the Quran's verses has mentioned that "And let there among you be a group of people who invite to all that is good, who enjoin what is right and forbid what is wrong" (3:104). This verse outlined the way how societies or communities should be organized and run (Hamid et al., 2013). In order to follow the practices of serving the social needs in Malaysia, the Malaysian Car Rental Online C2C Platform, as proposed in this paper, could collaborate with the proposed network of mosque concept. By sharing the same database about the poor families in Malaysia, these poor families could get free services of car rental from the Malaysian Car Rental Online C2C Platform. System would be integrated with the MyMosqueNet2Cloud Collaborative System database, to validate the customer situation and condition. The customer would get a free or discounted car rental service if their data lies in the MyMosqueNet2Cloud Collaborative System database.

This collaboration of Malaysian Car Rental Online C2C Platform with the MyMosqueNet2Cloud Collaborative System is to provide and show the social responsibility to serve for the needs. A collaborated database is crucial in order to confirm that the social responsibilities services do not fall to the wrong hands. This is also to make sure all the poor families in Malaysia could get as much services from the Malaysian communities.

MyMukim2Cloud is another platform for the various government and independent agencies to help the unfortunate people in Malaysia. The database system is integrated with the government and social agencies around Malaysia. MyMukim2Cloud developments augur well for new government suite of service offerings to the Orphanage, the

poor and the disabled that support a collaborative and cooperative arrangement of open consultation, open data, shared knowledge and expertise, consolidation of shared services and enhanced MyMukim2Cloud services (Saleh, Ma-Key, Dahlan, & Osman, 2013). Integration of MyCarRental.my with MyMukim2Cloud would ease the car rental platform to identify the right people to serve free or discounted car rental service.

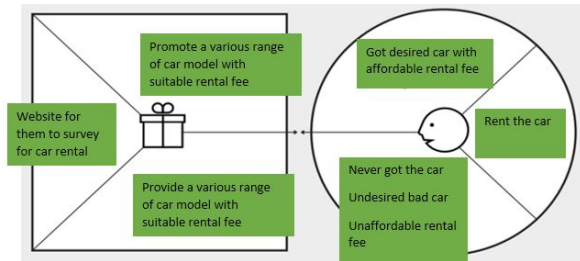**Figure 4: Business Model Canvas**

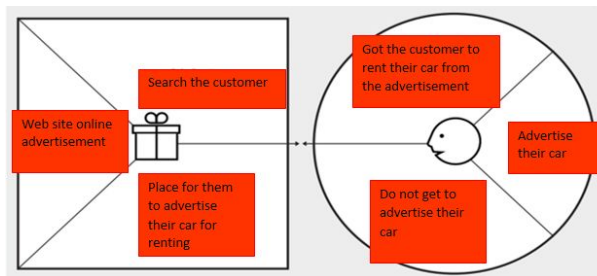**Figure 5: Value Proposition Design for Car Rental Consumer**

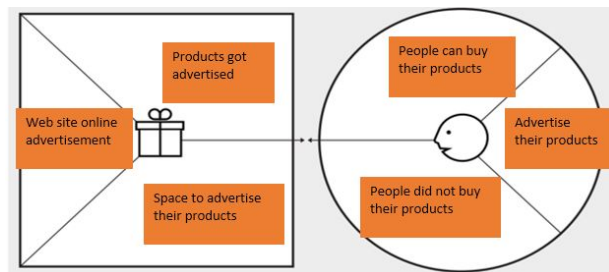**Figure 6: Value Proposition Design for Car Owner**

Figure 7: Value Proposition Design for Other Advertiser
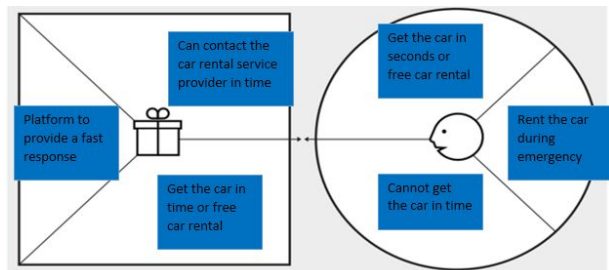

Figure 8: Value Proposition Design for Emergency Customer
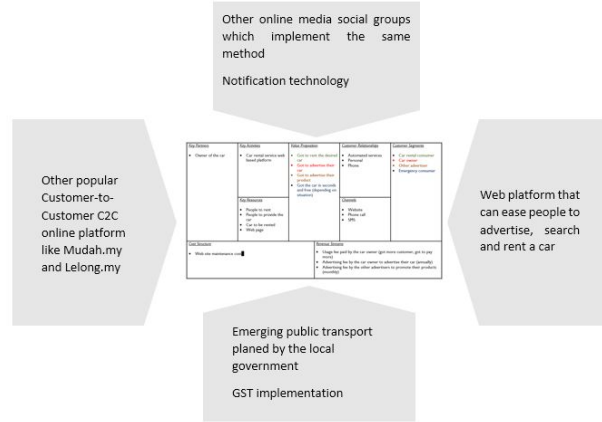

Figure 9: MyCarRental.my Business Environment

VIII. CONCLUSION

It can be clearly seen that MyCarRental.my is the best solution for all people especially for the owner of the car and the customer in need. MyCarRental.my is actually to help each other, for the owner of the car to enhance their business around the Malaysia and to help the customer in need to find their desired rental car. The customer can easily find out all the owner of the car easily around them. If the one of the owner is have no car anymore, the customer can find out the other owner with a short time. It can save a lot of time of customer. The proposed solution will provide an easy access for a specific group of user as their needs. MyCarRental.my will provide a service specifically for the targeted group of customer. Integration of MyCarRental.my with MyMosqueNet2Cloud Collaborative System database and MyMukim2Cloud would further boost the efforts to help the needy and helpless people around Malaysia.

IX. FUTURE WORKS

Future plan for this project is to enhance the system. A worldwide integrated system could be developed in order to achieve the international standard on car rental services. A more advanced and secured system is crucial in order to maintain the data integrity and security of the system. This future features is needed in the future development as to overcome the future possible attacks from the criminal. MyCarRental.my will be deployed first in the Klang valley especially in the area of Kuala Lumpur, as a proof of concept of the effectiveness of the system. Future implementation would be nationwide. Nationwide deployment is crucial for the development and management team to study the reliability of the system.

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