

Analysis of the Feasibility of Business Idea Application Services Online Workshop "OT Repair" Specifically for Tire Repair and Oil Change in the Province of DKI Jakarta

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ABSTRACT

Transportation vehicles are an important aspect for people in DKI Jakarta to support their daily activities by using private vehicles, both motorbikes and cars. While busy in activities, sometimes vehicle owners forget to check the condition of the vehicle, especially routine tire condition checks and oil changes which then have an impact on vehicle engine damage. The OT Repair business idea is a workshop service business innovation that is presented in the form of an application that focuses on tire and oil repair or replacement services. Through the OT Repair application, vehicle users can use repair services through the application, including booking schedules and choosing the nearest repair shop. This study aims to find out whether the OT Repair business idea is the answer to the needs of the people in DKI Jakarta. Qualitative analysis is used in analyzing non-financial feasibility such as marketing aspects, technical aspects as well as management and legal aspects. Quantitative analysis is used to analyze OT Repair business ideas that can meet community needs and feasibility based on investment criteria. The financial aspect shows the BEP is Rp. 410,636,079, the NPV is Rp. 80,767,898, the IRR is Rp. 13%, a PI of 1.16 and a payback period of 3 years and 3 months. The results of this feasibility analysis show that the OT Repair business is feasible based on market and marketing, technical, and management as well as financial aspects. However, it is not feasible based on legal aspects until the process of establishing the legal entity is carried out.

Keywords : Start-Up; Non-Financial Aspects; Investment Criteri; Feasibility.

INTRODUCTION

The level of economic growth in Indonesia varies in each province and the largest economic growth is the province of DKI Jakarta as the nation's capital (Abduh & Omar, 2012; Alfada, 2019; Kurniawan & Managi, 2018; Kusuma et al., 2019; Supartoyo et al., 2013; Van der Eng, 2010). DKI Jakarta's economic growth as the nation's capital (Firman & Fahmi, 2017; Nurzaman, 2010; Sulisworo, 2016) which has continued to increase, except during the Covid-19 pandemic, has encouraged an increase transportation user wheel two and wheel four every year. Based on data from the Central Statistics Agency (BPS DKI Jakarta Province, 2021) it shows the number of motorized vehicles in DKI Jakarta continues to increase from year to year as can be seen from the growth of motorized vehicles in the period 2019 to 2021.

There is an increase in the number of users of motorized vehicles every year every year there is a potential for vehicle accidents to occur if vehicle users do not routinely check their vehicles, especially consumable components, so that vehicle maintenance and repair services

are needed that can be easily accessed by the public (Redman et al., 2013; Siman-Tov et al., 2017; Tirachini et al., 2020).

Based on data APBI (Association Producer Tire Indonesia) quoted on the PPM Productivity Quality Management Consultant website (Consultant, 2019) it is known that in Indonesia in 2018 sales tire four wheels reached 84 million units while two wheels reached 69 million units. Taking into account the growth in the number of vehicles in DKI Jakarta and the level of tire sales in last year's period, there is a business opportunity for tire sales in DKI Jakarta as well as the vehicle oil sales business. Vehicle users as tire consumers will also need quality and service fast and precise with ease through the use of information technology to meet the needs of regular tire or oil changes. The sales opportunity gave birth to a business idea online repair service specifically for tire and oil changes in DKI Jakarta under the name OT Repair (Aguirre-Villegas & Benson, 2017; Amin et al., 2022; Muhammad, 2018; Trangadisaikul, 2011).

OT Repair designed to answer the problem from the owner of a vehicle which has a problem with service which is effective and responsive. Because in addition to periodic and scheduled changes, vehicles generally also experience unexpected things such as flat tires, punctured tires or oil leaks thus slowly damaging the vehicle engine. Innovation is needed now which is supported by the development of information technology through applications, namely the application Service Workshop On line special Repair Tire and Replacement Oil. Something Application which will meet the needs of the owner of a vehicle requiring a tire change or vehicle oil with a mechanic who is reliable which will give service repair/replacement of parts as partners from vehicle repair shops in the DKI Jakarta Region. An application with the name "OT Repair" will make things easier for various consumers, advantages such as *payment methods*, information on the type of tire and oil according to the type of vehicle as well as the choice of repair at the garage or location desired by the consumer (*service on the road*). To make the relationship between *customers* and mechanics easier, researchers also designed menus in the application, namely *feedback for point*, which is when the mechanic has done the finished repair problem of the vehicle from the owner of a vehicle, so the mechanic will get criticism, suggestions and input which are additional points for *customers* who use this application. That point can be used to get *vouchers* discount, piece price and etc so that can give profit good for *customers* nor mechanic. Based on the description of the on and for testing the appropriateness of the business idea, so the writer does a business model analysis for OT Repair with the formulation of the problem: 1) whether the people of DKI Jakarta need a special workshop for tire and replacement oil? 2) what is the OT business idea that can become a solution for the needs of the public? 3) Is the OT Repair business model worthy to run as a company (Start-Up) ?

METHOD

This study uses a quantitative approach to predict the feasibility of an OT Repair business idea that can meet the needs of the people of DKI Jakarta. The research variables used are:

- a. Tire & oil specialty workshop (Product Need) as variable X1
- b. Online repair shop services specifically for tires & oil as a variable X2
- c. OT Repair as an online repair shop specifically for tires & oil is a solution to the needs of the people of DKI Jakarta who use vehicles as the dependent variable (Y)

The sampling technique for this study used non-probability sampling, namely the accidental sampling technique where the researcher took a sample that he happened to meet during the survey. Source of data used in this study is Primary Data. According to Wardiyanta in Sugiarto (2017: 87), primary data is information obtained directly from sources. So that information from sources will be more easily obtained from the distribution of questionnaires.

The instrument in this study aims to produce precise and accurate data by using a Likert Scale. According to Sugiyono (2016: 93) says that the Likert Scale is used to measure attitudes, opinions and perceptions of a person or group of people about social phenomena. By using a Likert Scale, the variables measured will be translated into indicators and then these indicators will form the basis for preparing each item in the form of a statement or question.

1. Descriptive statistics

Descriptive statistics in research is a science that studies the collection, compilation and processing of data in statistics. Descriptive statistics will provide an overview of a general data from the data obtained and re-described so as to provide more complete information.

Descriptive statistical analysis in this study aims to provide an explanation of whether the OT Repair business idea is needed by the community and can be a solution to community needs.

2. Validity test

Validity test is a tool to measure the legitimacy or validity of a questionnaire. A questionnaire is declared valid if the statements or questions on the questionnaire are able to reveal something that will be measured by the questionnaire. Decisions in testing the validity of the instrument:

1. The statement item is said to be valid if $r_{count} > r_{table}$
2. The statement item is said to be invalid if $r_{count} < r_{table}$

3. Reliability Test

Reliability Test is a tool for measuring a questionnaire which is an indicator of a variable or construct. A questionnaire is said to be reliable or reliable if one's answers to statements are consistent or stable from time to time. Decisions in testing the validity of the instrument:

1. Statement items are said to be reliable if $r_{11} > r_{table}$ at $\alpha = 10\%$
2. Statement items are said to be unreliable if $r_{11} < r_{table}$ at $\alpha = 10\%$

4. Normality test

The basis for normality testing is

1. If the data spreads around the diagonal line and follows the direction of the diagonal or the histogram graph, then the data is normally distributed
2. If the data is spread far from the diagonal or does not follow the diagonal direction, then the data is not normally distributed
3. The histogram graph shows a bell shape which means the data is normally distributed.

5. Heteroscedasticity Test

The basic analysis in this test is:

1. If there is a certain pattern, such as the dots forming a certain pattern that is regular (wavy, widens and then narrows), then it indicates that heteroscedasticity has occurred.
2. If there is no clear pattern, and the points spread above and below the number 0 on the Y axis, then there is no heteroscedasticity.

6. Linearity Test

The Linearity Test serves to find out whether the independent variables and the dependent variable are linear or not. Testing with the Linearity test has a significance level of 0.05 , where two variables are said to have a linear relationship if the significance value is less than 0.05.

7. Hypothesis testing

The rule of hypothesis testing is carried out with the following criteria:

1. If the significant value is > 0.05 then the hypothesis is rejected (the regression coefficient is not significant). This means that the independent variable has no significant influence on the dependent variable.
2. If the significant value < 0.05 then the hypothesis is accepted (significant regression coefficient). This means that the independent variable has a significant influence on the dependent variable.

RESULTS AND DISCUSSION

Description Data

Data in study this obtained through wrong one method collection data that is distributing questionnaires online (*via Google Form*). Questionnaires have been distributed filled by respondent as much 35 people man and 85 people woman. The results test validity on, could seen for whole variable which consists on 30 statement items are declared valid and can be used for retrieval data.

In this study, the testers used the results of the *Cronbach's Alpha coefficient* (α). If the coefficient level of *Cronbach's Alpha* (α) is greater or equal to 0.60 then the data is said to be reliable or reliable. Based on the results of the calculation analysis from the questionnaire for tire and oil special workshop variables (X_1), repair service variables on line (X_2), and variable need Public (Y) obtained summary results test try reliability. Based on the results of the reliability test, it shows the value of $r_{count} = 0.928$, if you look at it in the table of correlation coefficient interpretation guidelines, that the resulting r value lies between $\pm 0.80-0.1000$, then the statement of the total variables X and Y in the test reliability is **very strong**.

On P-Plot seen dot, dot, dot follow and approach line the diagonal also that could concluded that model regression fulfil assumption normality. Based on appearance chart scatterplot on, could seen that chart no show exists pattern which formed from dot, dot, dot spread data, as well as dot, dot, dot the scatter data is above and below zero which means no problem heteroscedasticity, until model regression the good one and ideal could fulfilled. Based on the basis of decision making from the linearity test, it is based on from the output above, the *Deviation from Linearity Sig* value is greater than 0.05 . _ So it can be concluded that there is a significant linear relationship between Independent variables with Dependent variable.

Hypothesis testing

Hypothesis first which filed on study this state that,

H₁: Tire and Oil Special Workshops (X_1) have an effect on Community Needs (Y). Based on results test t which served on table 4.14 in on, show that score t count more big from score t table ($3,838 > 1.98045$).

That way, **H₀ is rejected and H_a is accepted** , so it can be concluded that Workshop Special Tire and Oil (X₁) influential to Needs Public (Y).

a. Testing hypothesis 2

hypothesis second which filed on study this state that,

H₂ : Online Workshop Services (X₂) effect on Community Needs (Y). Based on results test t which served on table 4.14 in on, show that score t count more big from score t table (8,632 > 1.98045).

That way, **H₀ is rejected and H_a is accepted** , so it can be concluded that Services Workshop On line (X₂) influential to Need Public (Y).

Discussion

In this study data related to non-financial aspects are used to find out the maturity of the OT Repair business when viewed from a non-financial aspect between other aspect market, technical as well as organization and management. Analysis of market aspects in the OT Repair business is carried out to find out the target market which will aim, so that results effort which given could be accepted and useful for society. Repair company for online repair services tires and oil changes in the form of an application require analysis aspect market so that could used by whole Public which use it. In study this, aspect technical needed for know operations of the OT Repair business. In aspect law and OT Repair business management must be in the form of a legal entity and have business licensing documents including the establishment of an organizational structure, number of employees work and labor qualifications needed in order to be able to operate business OT Repair.

Results questionnaire from respondent the average answer is "agree" which means that each respondent understands its importance taking care of the vehicle, especially the condition of the tires and when to change the vehicle oil. Results processing data with the help of SPSS shows that H₀ is rejected and H_a is special tire and oil workshops (X₁) affect the needs of society (Y). So **business OT Repair needed Public.**

Data which appear from results processing questionnaire has answered by respondent with the average answer is "agree" which means that each respondent agrees something innovation new that helps society do repair tire and oil changes easily and more effectively. The results of processing questionnaire data using SPSS show that H₀ is rejected and H_a is accepted, namely the idea of online repair services (X₂) has an effect on community needs (Y). Then the **business idea OT Repair answering the needs Public.**

Based on analysis which has conducted from facet financial and non financial. Based on analysis aspect market, business OT Repair own potency market the good ones, namely in the DKI Jakarta area by providing repair services vehicles via online applications specifically for tire repair and replacement oil which is currently not available. Sales potential from OT Repair is targeted increase as big 20% each the year. OT Repair uses the STP technique that is *Segmentation, targeting* and *positioning* as means for focusing to target market. Viewed from facet mix marketing, business OT Repair capable create something product which innovative, clear benefits for users as well as partners, venue selection strategic and affordable, as well as attractive promotions and unique. Corresponding with a number of characteristics *start-up* as age business which still just established, there is innovation and uniqueness of ideas and easy to adapt, then on the market aspect, OT Repair business **is feasible for made start-up.**

Based on an analysis of the technical aspects, the OT Repair business has technicians for operations with strategic location placement plans and facilities and facilities to support activities so that they are in accordance with several start-up characteristics such as the number of effective human resources, the existence of an organizational structure and a spirit of idealism. It can be concluded that on a technical aspect, the OT Repair business is feasible to be a start-up.

The OT Repair business has not yet been in the form of a business entity; it has just formed an organizational structure and job descriptions for the division of tasks, authorities and responsibilities and a payroll system has been established. From a management and legal perspective, the business is not feasible to be a start-up.

CONCLUSIONS

The conclusions that can be drawn from the results of the analysis of the OT Repair business model as an online workshop service application specifically for tire repair and oil change in the DKI Jakarta province are: SPSS finance, it has been found that every community agrees that the existence of special workshop services for tire repair and oil changes is an important aspect of vehicle maintenance. This is also proven by the results of the diagrams from data processing via SPSS so that it can be proven that the OT Repair business is needed by the community.

Based on the results of processing the questionnaire that has been answered by each respondent on variable X2, and also the processing carried out through the SPSS financial application, it has been found that every community agrees that new innovations in vehicle repair services will create a more effective situation. This is also evidenced by the results of the diagrams from data processing via SPSS. 3) The OT Repair business is feasible based on financial and non-financial aspects. From a non-financial perspective, it includes market and marketing, technical, as well as management and legal aspects . Based on an analysis of market aspects, the OT Repair business is considered to have good, clear and directed market potential in terms of profit calculation, STP (Segmentation, targeting and positioning) technical analysis and is included in the characteristics of a start-up business. Based on the technical aspect, the location and infrastructure support the operational process. Based on the management and legal aspects, the requirements for establishing a PT and the required documents have been fulfilled and the job description and position of each employee are clear . From a financial perspective, it shows that the OT Repair business is feasible to run because it has met the investment criteria including a BEP of Rp. 410,636,079, the NPV is Rp. 80,767,898, IRR is 13%, PI is 1.16 and the payback period is 3 years and 3 months.

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