

# Behavior of Partner Users in New Collaborative Online Application in Indonesia based on Theory of Plan Behavior

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## Abstract:

In Indonesia, online application is continuously developing, and it is accompanied by a tough competition among them. This research will explore the behavior of partner users in new collaborative online application in Indonesia. Based on previous research, behavior intention is able to predict the behavior. Therefore, the more behavior (actual use) by partner user, the greater the revenue that will be obtained by company. Data collection was designed using the purposive sampling method and obtained data of 140 respondents whom new collaborative online user. The results show three independent variables affect behavioral intentions and all three independent variables affect behavior (actual use) through behavioral intention.

**Keywords:** Behavior, Behavioral Intention, Online Application, Indonesia

## 1. INTRODUCTION

With around 269 million people, Indonesia is a country with the fourth highest population in the world, after China, United States, and India (Worldometer, 2019). Indonesia also has a large amount of labor force participation with a total of 136,18 million workers. It's increasing because it's 133,94 million workers in 2018. By 2030, Indonesia is projected to obtain maximum benefit from its large working-age group, which will reach 70 percent of the whole population (Jakarta Post, 2018). Of course, demographic bonuses will lead the Government's concern to provide or add a lot of jobs for these workers. Under-employment rate in Indonesia has increased from 5,04% in February 2018 to 5,09% in February 2019. Because of this increase that occurred, the government is considered unable to provide employment for the unemployed. As a result, a new phenomenon has emerged that is believed to reduce unemployment, namely freelance. Freelance in

Indonesia has increased by 16% from 2018 to 2019 (Sribulancer in Akurat.co, 2019). Freelance itself started to rise in the United States of America (USA), now become so important or key factors for the United States' economics. About 36 percent of current US workers or around 57.3 million people work as freelancers and contribute USD 1.4 trillion to the economic growth of the United States. Even according to a report from Forbes.com, freelancers in the United States in 2027 will increase to 50 percent, half of the workforce. "The development of freelance work is 3 (three) times faster than formal or traditional workforce," said Stephane Kasriel, CEO of Upwork. This upward trend can also be proven from a report found in Kathuria (2017) which states that in India, online freelancing is increasing so fast. This can be proven by data in 2017 which recorded that there were 15 million freelancers in India using the online freelancing feature. India ranks second after the United States with the highest number of casual workers with 57.3 million people. In

Indonesia, there are 4.55% of Indonesian workers or around 5.89 million people who currently working as a freelancer and it is predicted that in the future that 2/3 of Indonesian workers will work in the informal sector or as a freelance (Central Bureau of Statistics Republic of Indonesia, 2019). Compared to the United States which has 57.3 million workers and India with 15 million freelancers or freelancers, the number of freelancers in Indonesia can still be said to be less than in other countries.

In October 2018, one of collaborative online application, which had first dropped in the mobile apps field in the B2B e-commerce industry, launched an innovation in technology. This collaborative online application or platform that seeks and empowers freelance workers throughout Indonesia to work on the needs of clients (Small-Medium Enterprises and Corporates) or becomes a third-party platform for people who want to find work and people who want to hire people on a freelance basis. The number of people who download and register as a user increases every month. On Desember 2019, 118 thousand users spread throughout Indonesia and has different backgrounds, such as housewife, college student, general employee, freelancer, online driver, civil servant, entrepreneur, teacher, and many more. But, Only 15.8% of total users are active to do the work that is available on this application.

Ajzen & Fishbein (1985) in Aronson, Wilson, & Akert (2016) say that when an individual has time to ponder or think about how they will behave, then the best indicator of that behavior is behavioral intention. Intention is a subjective value that a person has relating to the actions taken (Fishbein & Ajzen, 1975 in Buhmann & Brønn, 2018). Intention is a process within oneself that is included in the stages of decision making. In order to boost the participation from our users to do the job that company has provided, company needs to know the factors that can affect user's intention and will try to create the right solution or influence the user's intention factors. This has been proven by researchers in the form of an attitude-behavior relationship called Planned Behavior Theory (TPB). This theory stated that a person's behavior is formed from attitude towards behavior, the social factor (Ajzen and Fishbein, 1980 in Buhmann & Brønn, 2018). This is meaningful

because the most important predictor of actual behavior is behavioral intention (Han et al., 2010 in Xin et al., 2019). The main purpose of this research is to provide information on factors that affect user's behavioral intention to use new applications. Furthermore, the result of this research could also serve as a guideline for new online application create the right solution or strategy in order to boost the participation from our users to use the application more actively.

## 2. LITERATURE REVIEW

Planned Behavior Theory is the development of theory of reasoned action developed by Icek Ajzen & his partner, Martin Fishbein in 1985 (Lee & Kotler, 2011). Planned Behavior Theory is one example of the guidelines to measure the consumer's behavior or a theory aimed at limiting and predicting individual behavior towards something (Ajzen, 2012). Planned behavior theory has been implemented in various fields and industries, and in various applications. Besides that, it has become widely used in the field of behavioral and psychological research and evaluation studies. For example, planned behavior theory has been applied to investigate human behaviors, including both favorable behavior (physical activity, technology adoption, halal food purchasing) and unfavorable behavior (theft, piracy, and shoplifting). In this theory, it is stated that a person's behavior is formed from attitude towards behavior, the social factor which is subjective norm, and another variable which is degree of perceived behavioral control or PBC (Ajzen & Fishbein, 1980 in Buhmann & Brønn, 2018). According to Tirana & Tjakraatmadja (2019), the relation between behavioral intention and behavior usually is a linear function. Moreover, Ajzen (1991) in Asare & Matthew (2015) said behavioral intention is the motivational factor that influence behavior. Altunel & Koçak (2017) in Dean & Suhartanto (2019) stated that behavioral intention is a person's tendency to behave in a particular manner towards products or services. It is a signal that predicts a person's behavior in the near future.

Attitude towards behavior is referred to as the evaluative impact of either positive or negative feelings of an individual in performing a specific

behavior (Fishbein & Ajzen, 1975 in Xin et al., 2019). The more recent definition of attitude is the degree of favorableness and unfavorableness of a person's feeling towards a psychological object (Ajzen & Fishbein, 2000 in Patiro & Budiayanti, 2016). According to Utami (2017), attitude has a significant impact on intention towards behavior. It is possible that either one or a combination of these determinants will affect intentions in certain instances (Kiriakidis, 2015). H1: There is a significant impact between attitude towards behavior on User Behavioral Intention to Use the Apps.

Fishbein & Ajzen (1975) in Habba et al. (2018) defines subjective norm as subjective perception of the extent to which people or parties considered important (referents) will support or forbid it from engaging in behavior. According to Utami (2017), subjective norm has a significant impact on intention. This is because under significant social influence and pressure, an individual would still perform the behavior even though he is not in favor of performing it (Ventakesh & Davis, 2000). Thus, this research proposes that when references from family, friends or others can make users believe that using application is a good thing then it can make users willing to use it. It is possible that either one or a combination of these determinants will affect intentions in certain instances (Kiriakidis, 2015). H2: There exists a significant impact between Subjective Norm on User Behavioral Intention to Use the Apps.

Perceived behavioral control or PBC is defined as a person's perception of the difficulty level in performing the behavior of interest, given the presence or absence of the required resources and opportunities (Ajzen, 1991 in Buhmann & Brønn, 2018). Research has proven that PBC plays a role in the considerable variation in intention and behavior, and a positive relationship between PBC and intention exists (Utami, 2017). Perceived behavioral control has the same ability as actual behavioral control, which will create a direct impact on behavioral intention. There is a possibility that either one or a combination of these determinants will affect intentions in certain instances (Kiriakidis, 2015). H3: There exists a significant effect between Perceived Behavioral Control on User Behavioral Intention to Use the Apps.

In the Theory of Planned Behavior applications, instead of looking at actual behavior, it is common to concentrate on predicting behavioral intention. Ajzen (1985) in Kiriakidis (2015) stated that intention may provide a good indicator of actual behavior, even for long term purposes. Researchers have shown that user behavior (actual use) was significantly affected by intention to use (Xin et al., 2019). According to Amin et al. (2019), Intention was translated into a behavior among participants of the present study or in other words, intention has a significant effect towards behavior. H4: There exists a significant impact between User Behavioral Intention to Use the Apps on User behavior (Actual Use).

Ajzen (1985) in Kiriakidis (2015) stated that PBC will determine behavior not only directly, but also indirectly; directly through its impact to account for variations in behavior, by taking into consideration feasible obstacles that must be overcome for the successful performance of the behavior, and indirectly by its impact on intentions, because any individual who intends to perform a behavior pays attention to the feasible obstacles and whether he or she can effectively deal with them. According to Kalolo & Kibusi (2015), perceived behavioral control plays an important role on decision making to perform a certain behavior. H5= There exists a significant impact between Perceived Behavioral Control on User Behavior (Actual Use).

Attitude towards behavior is referred to as the evaluative impact of positive or negative feelings of people in performing a specific behavior (Fishbein & Ajzen, 1975 in Xin et al., 2019). A positive attitude can turn intention into actual behavior (Kalolo & Kibusi, 2015). Researchers have shown that attitudes toward behavior affect behavior (actual use) through intention. The finding explains the role of positive attitudes toward behavior that can turn intentions into actions (Kalolo & Kibusi, 2015). Amin et al. (2019) says that the attitude toward behavior significantly have an effect toward intention and the intention itself was translated into a behavior. It also says that Attitudes toward different behaviors have always been considered one of the strongest determinants of these behaviors. H6 = There is a significant impact between Attitude Towards Behavior on User behavior (Actual Use) through User Behavioral

Intention to Use the Apps.

Subjective Norm is a person's perception that most people who are important to a person should or should not perform the behavior in question (Ajzen & Fishbein, 1980 in Patiro & Budiayanti, 2016). According to Xin et al. (2019), the more positive is the subjective norm, hence the greater is the intention. Good or great intention will lead and encourage someone to perform a behavior. Kennedy et al. (2016) says that subjective norm were significant predictors of intention and intention were significant predictors of behavior (in this case breakfast consumption). But, according to the result of this research, it finds that subjective norm has the least impact towards intention and behavior if compared to attitude towards behavior and perceived behavioral control. H7= There exists a significant impact between Subjective norm on User behavior (Actual Use) through User Behavioral Intention to Use the Apps.

Researchers have indicated that intention to use to better predicted by perceived behavior control. These findings further explain the notion that intention to perform a behavior (actual use) is influenced by perception of control of an individual towards actual use. This may also mean that perceived behavior control plays an important role on the decision making to perform a behavior, in this research actual use (Kalolo & Kibusi, 2015). Ajzen (1985) in Kiriakidis (2015) stated that PBC would determine behavior both directly and indirectly. According to Xin et al. (2019), perceived behavioral control has a significant influence towards behavioral intention. The greater is the perceived behavioral control, the greater is the intention and it will lead and encourage someone to perform a behavior. Amin et al. (2019) stated that the perceived behavioral control significantly has an effect toward intention and the intention itself was translated into a behavior. H8= There exists a significant impact between Perceived Behavioral Control on User behavior (Actual Use) through User Behavioral Intention to Use the Apps.

### 3. RESEARCH METHODOLOGY

The sampling technique used in this study was purposive sampling. Purposive sampling is a

non-random sampling technique in which researchers determine sampling by determining specific characteristics that are appropriate to the objective of the study so that it is expected to solve the research problem. In this study, the number of samples are 140 respondents.

**Table 1. Operational Variable**

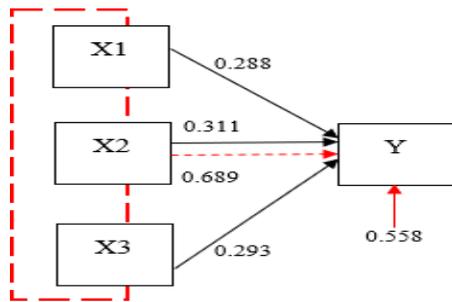
| Variable                            | Dimension         | Indicator            |
|-------------------------------------|-------------------|----------------------|
| <b>Attitude Towards Behavior</b>    | Behavioral Belief | Wise Act             |
|                                     |                   | Beneficial           |
|                                     |                   | Useful               |
| <b>Subjective Norms</b>             | Normative Belief  | Expect               |
|                                     |                   | Support              |
|                                     |                   | Motivation to Comply |
| <b>Perceived Behavioral Control</b> | Control Belief    | Abilities            |
|                                     |                   | Resources            |
|                                     |                   | Spare Time           |
|                                     |                   | Easy Thing           |
| <b>Behavioral Intention</b>         | Plan to Use       | Plan to Use          |
|                                     |                   | Intention to Use     |
| <b>Behavior</b>                     | Actual Use        | Actual Use           |

### 4. ANALYSIS AND DISCUSSION

In sub-structure 1, Variable Attitude Toward Behavior, Subjective Norm, and Perceived Behavioral Control as an independent variable and the Behavioral Intention as a variable dependent. Adjusted R2 value amounted to 0.689 (68.9%), which means 68.9% of variable Y is influenced by all independent variable, while the remaining 31.1% is affected by other variables outside of this research.

Based on the test of influence between variables simultaneously and individually, then the following is

a summary table of path coefficient values (beta) of test sub- structure 1.



**Figure 1 Sub-Structure 1 with Path Coefficient Values**

The structural equation for sub-structure 1 is as follows:

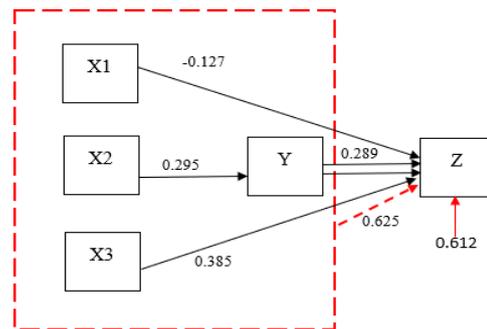
$$Y = \rho_y X1 + \rho_y X2 + \rho_y X3 + \rho_y \epsilon_1$$

$$Y = 0.288 X1 + 0.311 X2 + 0.293 X3 + 0.558 \epsilon_1 \text{ and Adjusted } R^2 = 0.689$$

The overall results from testing sub-structure 1 are variable X1, X2, and X3 simultaneously and significantly influence or affect Y on 68.9% and the influence of other variables affecting Y outside this study was 31.1% with a path coefficient of 0.558.

Testing sub-structure 2 consists of variables such as Attitude Toward Behavior (X1), Subjective Norm (X2), Perceived Behavioral Control (X3), Behavioral Intention (Y), and Behavior (Z) that are illustrated in the form of structure. There are Variable Attitude Toward Behavior (X1), Subjective Norm (X2), and Perceived Behavioral Control (X3) as an independent variable, the Behavioral Intention variable (Y) as a dependent variable, and the Behavior variable (B) as an intervening variable. The magnitude of the effect of variables X1, X2, and X3 respectively on Y variable can be seen by observing the value of Adjusted R Square (R<sup>2</sup>) value amounted to 0.625 (62.5%), which means 62.5% of variable Z is influenced by variables X1, X2, X3, and Y, while the remaining 37.5% is affected by other variables outside of this research. The value of sig (0.206) is lower than alpha (0.05), there is not a significant effect between Attitude Towards Behavior (X1) Towards Behavior (Z). The value of sig (0.004) is lower than alpha (0.05), it implies a significant effect between Subjective Norm (X2) towards Behavior (Z). The value of sig (0.001) is lower than alpha (0.05), it implies a significant effect between Perceived Behavioral Control (X3) towards Behavior (Z). Based on the test of influence between variables

simultaneously and individually, then the following is a summary table of path coefficient values (beta) of test sub- structure 2:



**Figure 2 Sub-Structure 2 with Path Coefficient Values**

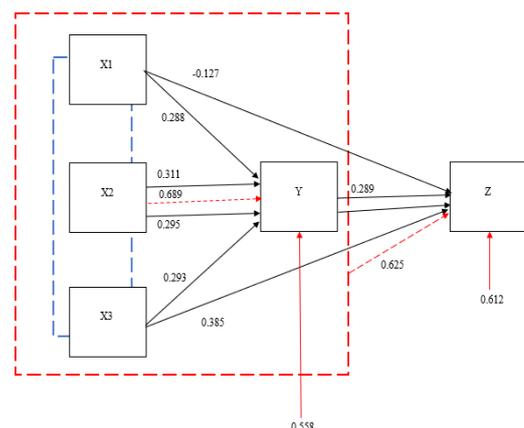
The structural equation for sub-structure 1 is as follows:

$$Z = \rho_z X1 + \rho_z X2 + \rho_z X3 + \rho_{zy} Y + \rho_z \epsilon_2 \text{ (Equation of Sub-Structure 2)}$$

$$Z = -0.127 X1 + 0.295 X2 + 0.385 X3 + 0.289 Y + 0.612 \epsilon_2 \text{ and Adjusted } R^2 = 0.625$$

The overall results from testing sub-structure 2 are variable X1, X2, X3, and Y have simultaneous and significant effect on Z for 62.5% and the influence of other variables that affect Z outside this study was 37.5% with a path coefficient of 0.612. However, the results of individual testing found out that X1 doesn't have a significant effect on Z.

Causal influence between Attitude Toward Behavior (X1), Subjective Norm (X2), Perceived Behavioral Control (X3) on Behavioral Intention (Y) and its impact on The Behavior (Z) as a whole can be seen in the structure complete in the following picture:



**Figure 3 Sub-Structure 1 and 2 with Path Coefficient Values**

**Table 2 Summary of Influences and Path coefficients X1, X2, X3, Y, and Z**

| Variable     | Path Coefficient | Influence |                       |                         | Mutual Influence |
|--------------|------------------|-----------|-----------------------|-------------------------|------------------|
|              |                  | Direct    | Indirect (Through Y)  | Total                   |                  |
| X1 towards Y | 0.288            | 0.288     | -                     | 0.288                   | -                |
| X2 towards Y | 0.311            | 0.311     | -                     | 0.311                   | -                |
| X3 towards Y | 0.293            | 0.293     | -                     | 0.293                   | -                |
| Y towards Z  | 0.289            | 0.289     | -                     | 0.289                   | -                |
| X1 towards Z | -0.127           | -0.127    | 0.288 x 0.289 = 0.083 | -0.127 + 0.083 = -0.044 | -                |
| X2 towards Z | 0.295            | 0.295     | 0.311 x 0.289 = 0.090 | 0.295 + 0.090 = 0.385   | -                |
| X3 towards Z | 0.385            | 0.385     | 0.293 x 0.289 = 0.085 | 0.385 + 0.085 = 0.470   | -                |
| ε1           | 0.558            | -         | -                     | -                       | -                |
| ε2           | 0.612            | -         | -                     | -                       | -                |

Based on the table above, which is a summary of research results regarding the influence of Attitude Toward Behavior (X1), Subjective Norm (X2), and Perceived Behavioral Control (X3) to Behavioral Intention (Y) and its impact on the Behavior (Z), the following conclusions can be drawn:

a. There exists a direct and significant influence or effect between Attitude Toward Behavior (X1) towards Behavioral Intention (Y) in the amount

of 0.288 and the rest of 0.712 is affected by other factors outside of the research variable.

b. There exists a direct and significant influence or effect between Subjective Norm (X2) towards Behavioral Intention (Y) in the amount of 0.311 and the rest of 0.689 is affected by other factors outside of the research variable.

c. There exists a direct and significant influence or effect between Perceived Behavioral Control (X3) towards Behavioral Intention (Y) in the amount of 0.293 and the rest of 0.707 is affected by other factors outside of the research variable.

d. There exists a direct and significant influence or effect between Behavioral Intention (Y) towards Behavior (Z) in the amount of 0.289 and the rest of 0.711 is affected by other factors outside of the research variable.

e. There isn't a direct and significant influence or effect between Attitude Toward Behavior (X1) towards Behavior (Z) in the amount of -0.127. In addition, there is an indirectly and significant influence between Attitude Toward Behavior (X1) towards Behavior (Z) through Behavioral Intention (Y) with total influence in the amount of -0.044.

f. There exists a direct and significant influence between Subjective Norm (X2) towards Behavior (Z) in the amount of 0.295 and the rest of 0.705 is affected by other factors outside of the research variable. There is also an indirect and significant influence or effect between Subjective Norm (X2) towards Behavior (Z) through Behavioral Intention (Y) with total influence in the amount of 0.385 and the rest of 0.615 is affected by other factors outside of the research variable.

g. There exists a direct and significant influence or effect between Perceived Behavioral Control (X3) towards Behavior (Z) in the amount of 0.385 and the rest of 0.615 is affected by other factors outside of the research variable. There is also an indirect and significant influence or effect between Perceived Behavioral Control (X3) towards Behavior (Z) through Behavioral Intention (Y) with total influence in the amount of 0.470 and the rest of 0.530 is affected by other factors outside of the research variable.

h. The value of Adjusted R Square (R<sup>2</sup>) for sub-structure 1 amounted to 0.689 (68.9%),

which means 68.9% of variable Y is affected by variables X1, X2, and X3, while the remaining 0.558 (31.1%) is affected by other variables outside of this research.

- i. The value of Adjusted R2 value amounted to 0.625 (62.5%), which means 62.5% of variable Z is affected by variables X1, X2, X3, and Y while the remaining 0.612 (37.5%) is affected by other variables outside of this research.

## 5. CONCLUSION

For Attitude Toward Behavior, company should do the “user education” or need to educate the user as has been done by several marketplaces in Indonesia. This should be done to increase the “Behavioral belief” on user that later can affect the behavioral intention and behavior (actual use) according to the findings. User education can be done by company by providing information and knowledge to the user of the application itself both in terms of use, benefits, and how to use it so that users can have a positive view of the application. For the Subjective Norm what should be done is to increase the role of users who have used or who have been active in this apps so that they can share their experiences or benefits as users to their relatives and family. This should be done to increase the “Normative belief” and “Motivation to comply” on user that later can affect the behavioral intention and behavior according to the findings. For Perceived Behavioral Control what should be done is to provide learning media for users to be able to use the application and complete the work that is in it to overcome users who have difficulty in completing the jobs. This should be done to increase the “Control Belief” on user that later can affect the behavioral intention and behavior (actual use) according to the findings. In addition, company must also pay attention to users with minimal resources such as low-quality smartphone devices. This is intended so that users with low quality smartphones can also use the application like other users.

## REFERENCES

- [1] Ajzen, I. (2012). *Handbook of Theories of Social Psychology*. New York: Publisher.
- [2] Aronson, E., & et al. (2016). *Social Psychology (9th Edition)*. United Kingdom: Pearson Education Limited.
- [3] Asare, M. (2015). Using the Theory of Planned Behavior to Determine the Condom Use Behavior Among College Students. In *American Journal of Health Studies* (pp. 30(1), 43-50).
- [4] Buhmann, A., & Bronn, P. S. (2018). Applying Ajzen's Theory of Planned Behavior to Predict Practitioners' Intentions to Measure and Evaluate Communication Outcomes. *Corporate Communications: An International Journal*, 23(3), 377-391.
- [5] *Countries in The World by Population (2020)*. (2019, July 9). Retrieved from Worldometers: <https://www.worldometers.info/world-population/population-by-country/>
- [6] Dean, D., & Dwi, S. (2019). The Formation of Visitor Behavioral Intention to Creative Tourism: The Role of Push-Pull Motivation. *Asia Pasific Journal of Tourism Research*, 1-11.
- [7] Dwifiani, A. (2019, Juni 17). *Pekerja Freelance Indonesia Naik 16 Persen, Kok Bisa?* Retrieved from <https://akurat.co/id-658385-read-pekerja-freelance-indonesia-naik-16-persen-kok-bisa>
- [8] Habba, H. F., & Dastane, O. (2018). An Empirical Investigation on Taxi Hailing Mobile App Adoption: A Structural Equation Modelling. *Business Management and Strategy*, 9(1), 48-72.
- [9] Kalolo, A., & Kibusi, S. M. (2015). The Influence of Perceived Behaviour Control, Attitude, and Empowerment on Reported Condom Use and Intention to Use Condoms Among Adolescents in Rural Tanzania. *Kalolo and Kibusi Reproductive Health*, 12(105), 2-9.
- [10] Kiriakidis, S. P. (2015). Theory of Planned Behaviour: The Intention- Behaviour Relationship and the Perceived Behavioural Control (PBC) Relationship with Intention and Behaviour. *International Journal of Strategic Innovative Marketing*, 3(10), 40-51.
- [11] Patiro, S. P., & Budiyanti, H. (2016). The Theory of Planned Behavior, Past Behavior, Situational Factors, and Self-Identity Factors Drive Indonesian Entrepreneurs to be Indebtedness. *DeRaMa Jurnal Manajemen*, 11(1), 44-66.
- [12] R. Lee, N., & Kotler, P. (2011). *Social Marketing: Influencing Behaviors for Good (4th Edition)*. Los Angeles: SAGE Publication.
- [13] Tirana, R. A., & Tjakraatmadja, J. H. (2019). Factors Affecting Knowledge Sharing Intention of Expert in Group of Faculty Member Telkom Corporate University. *The Asian Journal of*

*Technology Management*, 12(1), 70-85.

- [14] Utami, C. W. (2017). Attitude, Subjective Norm, Perceived Behavior, Entrepreneurship Education and Self-efficacy toward Entrepreneurial Intention University Student in Indonesia. *European Research Studies Journal*, 20(2A), 475-495.
- [15] Zhang, X. (2019). Psychosocial Factors Influencing Shared Bicycle Travel Choices Among Chinese: An Application of Theory Planned Behavior. 1-17.