Theory of Planned Behavior Approach and Gender Differences on Students’ Intention to Practice Online Business

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Abstract

The purpose of this study is to examine the influence of attitude, subjective norm, perceived behavioral control, gender and self-efficacy towards college students' intention to practice online business in Surabaya. Theory of planned behavior is used to analyze student intention to become an entrepreneur through e-commerce especially online shop platform, thus becoming solution to decrease unemployment rate in Indonesia and furthermore increasing the economy of Indonesia in general. This research uses primary data resources which collected directly by distributing questionnaires to 114 respondents. The respondents are college students that use e-commerce application at least once a month. The findings of this study are attitude has a negative effect towards student's intention to practice online business, subjective norm and perceived behavioral control have a positive effect towards student's intention to practice online business. Self-efficacy could not moderate the effect of attitude on student's intention to practice online business. Female college students have a higher intention to practice online business compared to male college students.

Keywords: Attitude; E-commerce Intention; Gender; Perceived Behavioral Control; Self-efficacy; Subjective Norm; Theory of Planned Behavior.

Pendekatan Teori Perilaku yang Direncanakan dan Perbedaan Gender pada Niatan Mahasiswa untuk Melakukan Bisnis Secara Online

Abstrak

Tujuan dari penelitian ini untuk menganalisis pengaruh attitude, subjective norm, perceived behavioral control, gender dan self-efficacy terhadap niatan mahasiswa untuk menjalankan bisnis secara online di Surabaya. Penelitian ini menggunakan Theory of Planned Behavior dalam menganalisis niat mahasiswa untuk menjadi wirausaha yang berbasis penjualan digital terutama online shop, sehingga dapat menjadi solusi untuk mengurangi tingkat pengangguran di Indonesia, terlebih lagi dapat meningkatkan perekonomian Indonesia secara umum. Penelitian ini menggunakan sumber data primer yang diperoleh secara langsung dengan menyebarakan kuesioner kepada 114 responden. Kriteria responden adalah mahasiswa yang menggunakan aplikasi e-commerce setidaknya sekali sebulan. Temuan dari penelitian ini adalah attitude memiliki pengaruh negatif terhadap student’s intention to practice online business, subjective norm dan perceived behavioral control memiliki pengaruh positif terhadap student’s intention to practice online business. Self-efficacy tidak mampu memoderasi pengaruh attitude terhadap student’s intention to practice online business. Mahasiswa perempuan memiliki student’s intention to practice online business yang lebih tinggi daripada mahasiswa laki-laki.

JEL Classification: M1, M13

INTRODUCTION

Development of e-commerce in Indonesia has grown rapidly in the last 5 years. From 19.8 million in 2014, e-commerce users in Indonesia were estimated to reach 39.3 million in 2020 (Ekayanti, 2017). According to the statistics, internet users in Indonesia had grown rapidly from 88.1 million users in 2014 to 143.26 million users in 2017 (APJII, 2017). The existence of smartphone apparently was one of the determinant factors of this phenomenon, where 44% of internet access was done through it (APJII, 2017). According to the same statistics, 98.6% of internet users were aware of commercial activities through online means, 82.2 million user had visited online commercial sites. Among various internet service usage 32% were used for online shopping, with only 9% that were used for selling (APJII, 2016, 2017). These results show that there is still an enormous potential for e-commerce to grow in Indonesia.

With the development of e-commerce and its enormous potential to grow, it is expected to contribute as solution for the high amount of unemployment rate in Indonesia. Statistics show that the percentage of unemployment at the working age in Indonesia was around 5.34% on August 2018. Although the amount was considered decreasing compared to August 2017 which was around 5.50%, it was still an increase compared to 5.13% on February 2018 (BPS, 2018). This showed that there were still around 7 million people in Indonesia that were unemployed at the time. With the limited availability of places to work, creation of new ventures through entrepreneurship especially e-commerce, hopefully could help decreasing the amount of unemployment rate in Indonesia from time to time.

Numerous previous researches about entrepreneurial intention were often conducted towards students, whether it is about its relation with entrepreneurship education (Turner & Gianiodis, 2018; Nabi et al., 2018; Barnard et al., 2019), or the students intention to consider entrepreneurship as a career option (Adikiya & Ibrahim, 2016; Ridha et al., 2017). Entrepreneurship contributed the most towards a nation's economic growth (Romer, 1994; Dana, 2004; Minniti et al., 2006). On developing countries such as Indonesia, the success of small and medium enterprise has becoming a key factor to reduce poverty and increase work fields (Reynolds et al., 2002; Bianchi & Henrikson, 2005). Entrepreneurship could create a better standard of living, provide better income, increase government’s earnings, and add more individual savings through the transaction activity that occurred on the creation of new technologies, the existing commodities, and the availability of service industries (Oke, 2013). The notion that students being the future entrepreneurs who plays an important role towards the development of nation’s economic growth, became the reason for abundant amount of researches towards student’s entrepreneurship intention. With the enormous support given by existing e-commerce platforms in everyone’s life, it hopefully would increase their willingness to become entrepreneurs in the near future.

Through the development of technology that could accommodate venture creation through e-commerce, supported by the fact that one of the biggest population of internet user in Indonesia were students (APJII, 2016, 2017), The novelty of this research is to analyze student’s intention to become an entrepreneur through the adoption e-commerce. Theory of planned behavior stated that intention which followed by actions, was determined through attitude, subjective norm and perceived behavioral control (Bird, 1988; Katz & Gartner, 1988; Ajzen, 1991). This study aimed to see a significant impact of theory of planned behavior towards intention to become an entrepreneur through e-commerce especially online shop platform, thus becoming solution to decrease unemployment rate in Indonesia and furthermore increasing the economy of Indonesia in general.

Hypothesis Development

Intention was defined as a function of believe, that had a connection with behavior that
followed (Ajzen, 1991). The intention towards a certain behavior could become a strong indicator towards the materialization of that particular behavior.

Attitude was a tendency to perform evaluation whether it was positive or negative towards a certain problem or subject (Eagly & Chaiken, 1993). That particular psychological character existed in every human being in the form of observation and critical evaluation. Someone's attitude towards something depended on its outcome, the more positive the outcome, the better that someone's perception and the higher their intention to perform that particular behavior (Shook & Bratianu, 2010). Based on what stated above this study hypothesized as follow:

H1: Attitude has a positive impact towards college students’ intention to practice online business in Surabaya

Subjective norm was defined as how much to a certain degree, a person or individual supported the result of a certain action or behavior (Fishbein & Ajzen, 1975). From previous researches, subjective norm was measured by asking respondents regarding how supportive their close relatives and colleagues towards activities that they perform, which in this study related to venture creation (Ajzen, 2001; Linan & Chen, 2009). Since their perception was tend to be subjective, it was then called subjective norm (Fishbein & Ajzen, 1975). Regardless of the theory of planned behavior concept and its effect towards intention Ajzen (1991) generally speaking, subjective norm which is part of theory of planned behavior tend to have inconsistent relation towards intention (Krueger et al., 2000). The reason behind this inconsistency was because the information that was a part of subjective norm has already existed within someone’s decision to do something or to perform a certain behavior (Ham et al., 2015). Thus, there was still a need to perform further studies regarding the relation between subjective norm and intention. Based on what stated above, this study hypothesized as follow:

H2: Subjective norm has a positive impact towards college students’ intention to practice online business in Surabaya

Perceived behavioral control was an individual perception towards certain difficulties upon performing a particular task (Ajzen, 1991), which in this study related to performing venture creation. The bigger the perceived behavioral control, the stronger someone’s intention to show certain behavior. Previous research also stated that perceived behavioral control could directly predict behavior and intention, because the feeling of having control toward something increased someone willingness to exert a better effort towards successfully achieving it (Armitage & Conner, 2001). Based on what stated above, this study hypothesized as follow:

H3: Perceived behavioral control has a positive impact towards college students’ intention to practice online business in Surabaya

Theory of planned behavior stated that perceived behavioral control and behavioral intention were appropriate means to predict individual achievement towards a certain thing (Ajzen, 1991). Perceived behavioral control was an individual perception towards certain difficulties upon performing a particular task (Ajzen, 1991), which in this study related to performing venture creation. The bigger the perceived behavioral control, the stronger someone’s intention to show certain behavior. Previous research also stated that perceived behavioral control could directly predict behavior and intention, because the feeling of having control toward something increased someone willingness to exert a better effort towards successfully achieving it (Armitage & Conner, 2001). Based on what stated above, this study hypothesized as follow:

H4: Self-efficacy moderate the effect of attitude towards college students’ intention to practice online business in Surabaya
Numerous previous researches stated that male and female were not affected by the same factors related to entrepreneurship, either personal experience or entrepreneur role model (Van Auken et al., 2006; Kickul et al., 2008). Thus this study also examined whether the difference of gender also affecting entrepreneurial intention through hypothesis as follow:

H5: Male college students has a higher intention to practice online business compared to female college student

This study was conducted based on the previous research (Dinc & Budic, 2016) which found that personal attitude and perceived behavioral control gave significant impact on entrepreneurial intention but that research along with other previous researches related to the relationship between theory of planned behavior and entrepreneurial intention (Sequeira et al., 2007; Fenech et al., 2019; Hsu et al., 2018) had been conducted solely based on the concept of entrepreneurship in general, it was rarely seen from the perspective specific to e-commerce. Thus, this study specifically aimed to see the impact of theory of planned behavior towards student’s intention to practice online business.

Previous research on gender towards student’s intention to practice online business (Engle et al., 2011) also investigated the relationship between gender and the concept of entrepreneurship in general. Thus, this research aimed to see the impact of gender specific towards student’s intention to practice online business.

Self-efficacy only seen whether as a dependent variable along with attitude towards intention (Sequeira et al., 2007), or as a dependent variable towards attitude itself (Lu et al, 2016). Thus, in this research self-efficacy acted not as a dependent variable towards intention, but as a moderating variable that could increase the effect of attitude towards student’s intention to practice online business. Conceptual framework can be seen in Figure 1.

**Figure 1. Conceptual Framework**

**METHOD**

In this study, the samples were collected using non-probability purposive sampling through questionnaires. The questionnaires were given to college students in Surabaya who used online shopping applications, since according to statistics college students were one of the major users of internet (APJII, 2017).

Attitude was measured using four indicators that were used by Hsu et al. (2006). Subjective norm was measured using three indicators that were used by Hsu et al. (2006). Perceived behavioral control was measured using three indicators that were used by Hsu et al. (2006). Student’s intention to practice online business was measured using three indicators that were used by Hsu et al. (2006). Self-efficacy was measured using seven indicators that were used by Chen et al. (2001).

Responses were measured using likert scales that were modified to 4 scales to eliminate the weakness 5 scales since it had middle or neutral point which was often used by respondents when they were not sure of their choices. Furthermore, 4 scales likert was also used to avoid central tendency so that the direction of respondents’ answers would clearly be determined (Kulas, 2008; Tsang, 2012).

According to Hair et al. (2014), the recommendation of sample size which has 80% statistical power for a research that had four independent variables was 111 respondents for 10% significance level and $R^2$ at least 0.1. Thus this research needed at least 111 respondents. The test was conducted using statistical analyze...
RESULT AND DISCUSSION

The data was collected from questionnaires that were given to respondents using google forms. The respondents that were asked to fill the questionnaires in this study were all college students that used online shopping applications with the total amount of 114 people.

Table 1 showed that among 114 respondents, there were 72.8% female respondents and 27.2% male respondents. There were 60.5% respondents that were 19-21 years of age, 27.2% that were 22-23 years old, and 12.3% that were 24-25 years old. There were

Table 2. Goodness of Fit

<table>
<thead>
<tr>
<th>Goodness of Fit</th>
<th>Loading</th>
<th>AVE</th>
<th>Discriminant Validity</th>
<th>Composite Reliability*</th>
<th>Composite Reliability**</th>
<th>AVE***</th>
<th>Loading</th>
<th>AVE***</th>
<th>R Square</th>
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<tr>
<td>Att1</td>
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<td></td>
<td>.439</td>
<td>.663</td>
<td>.698</td>
<td>.899</td>
<td>.817</td>
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<tr>
<td>Att2</td>
<td>.137</td>
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<tr>
<td>Att3</td>
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<tr>
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<td>EI1</td>
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<td>.783</td>
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<td>.783</td>
<td>.782</td>
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<td>EI3</td>
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<td>PBC3</td>
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<td>.544</td>
<td>.544</td>
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</table>

*Original Value  
** After loading elimination <.40  
***After loading elimination <.70
33.3% respondents that used online shopping applications for more than once per day; 27.2% respondents use them once per week; 23.7% use them once per day and 15.8% respondents used online shopping applications for once per month.

Based on the Goodness of Fit tests that were shown on Table 2, indicators within variables that had loading values below 0.40* had been eliminated and all the discriminant validity had a higher values compared to their correlation, thus it was concluded that this model had a good discriminant validity. Composite reliability* of all variables were above 0.50, thus it was concluded that this model was considered reliable. According to Hair et al., (2014) the elimination of indicators within variables that had outer loading values between 0.40 and 0.70 were only necessary if it could increase composite reliability and AVE values above their threshold values, which was 0.50. After the elimination of all indicators above which had loading values below 0.40, composite reliability** of all variables tended to have an increase in their values, but there was still variable that had AVE** below the recommended threshold values. Thus, all indicators of the mentioned variable that had loading values below 0.70*** were eliminated. All of the AVE*** were now above their threshold values so this study could be continued to the next step. R² for e-commerce was identified at 0.427, which meant student’s intention to practice online business and the impact was significant with original sample values of SN > EI 0.440 and T-Statistics value of 3.173 or above 1.96, thus H2 was supported.

Table 3. Path Coefficient

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Path Coefficient</th>
<th>T-Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Att -&gt; EI</td>
<td>-0.0305</td>
<td>0.190</td>
</tr>
<tr>
<td>PBC -&gt; EI</td>
<td>0.2428</td>
<td>2.731</td>
</tr>
<tr>
<td>SE -&gt; EI</td>
<td>0.1528</td>
<td>1.417</td>
</tr>
<tr>
<td>SN -&gt; EI</td>
<td>0.4403</td>
<td>3.173</td>
</tr>
<tr>
<td>Att * SE -&gt; EI</td>
<td>-0.0791</td>
<td>0.416</td>
</tr>
</tbody>
</table>

Perceived behavioral control (PBC) had a positive impact on student’s intention to practice online business and the impact was significant with original sample values of PBC > EI 0.243 and T-Statistics values of 2.731 or above 1.96, so based on this result, H3 was supported. Self-efficacy could not increase the effect of attitude on student’s intention to practice online business and the impact was not significant with original sample values of -0.031 and T-Statistics values of 0.416. Based on this result, it could be concluded that H4 was not supported.

Mann-whitney U Test showed that there were significant differences on student’s intention to practice online business between male and female students with significance level values of 0.012 or below 0.05. Student’s intention to practice online business on female student was higher than male student with the average values of student’s intention to practice online business 3.78 and 3.48 respectively. Based on this result, it could be concluded that H5 was not supported.

The test result above showed that attitude had a negative impact on student’s intention to practice online business and the impact was not significant. This finding was inconsistent with the statistical result of their average responses
which were very positive based on the Descriptive Statistic shown on Table 4. Regardless of respondents’ positive attitudes that were shown from the responses, it did not have a positive impact on their intention to engage in venture creation through e-commerce.

Table 4. Descriptive Statistic of Responses (Total Mean)

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Total Mean</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBC</td>
<td>3.50</td>
<td>Very Positive*</td>
</tr>
<tr>
<td>Attitude</td>
<td>3.69</td>
<td>Very Positive*</td>
</tr>
<tr>
<td>Subjective Norm</td>
<td>3.58</td>
<td>Very Positive*</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>3.48</td>
<td>Very Positive*</td>
</tr>
<tr>
<td>E-Commerce Intention</td>
<td>3.70</td>
<td>Very Positive*</td>
</tr>
</tbody>
</table>

*: 1.75= Very Negative; 1.76-2.50= Negative; 2.51-3.25= Positive; 3.26-4.00= Very Positive

Although this result was proven to be inconsistent with the previous research (Dinc & Budic, 2016), it was consistent with the previous research from Kakkonen (2012). Respondents whom in this case were all college students, could possibly have a negative attitude towards entrepreneurship the more they understood the competency that was needed to become an entrepreneur. The fact that at the moment they were not yet engaged with venture creation activities could also pose a negative attitude towards it (Fenech et al., 2019).

Based on the result above, subjective norm had a positive impact on student’s intention to practice online business with a significant impact. This result was consistent with the statistical result of their average response which were very positive. College students that were used as samples in this study, had a very positive perception towards venture creation through e-commerce. This result was consistent with previous studies that found a positive significant impact of perceived behavioral control on entrepreneurial intention (Karimi et al., 2014; Robledo et al., 2015; Dinc & Budic, 2016).

Regarding to the moderation effect of self-efficacy, it was proven from the result that self-efficacy couldn’t further increase the effect of attitude towards student’s intention to practice online business. Based on this result, it could be concluded that even though college students felt that they were capable on becoming entrepreneurs through e-commerce applications based on their responses shown on Table 4, statistically it couldn’t influence their attitude towards it. This was consistent with previous studies’ finding, which stated that self-efficacy only served as an independent variable towards someone’s intention (Sequeira et al., 2007; Hsu et al., 2018; Fenech et al., 2019).

Mann-whitney U Test showed that there were significant difference on student’s intention to practice online business between male and female college students, this result was consistent with previous studies that proved the existing effect of gender towards entrepreneurial intention (Engle et al., 2011; Hatak et al., 2015). Previous studies found that entrepreneurship was a career dominated by male (Canizares et al., 2010; Yordanova & Tarrazon, 2010; Santos et al., 2014), the findings of this study was proven to be the opposite of that result, where female college students that participated in this study showed higher entrepreneurship intention compared to their male counterparts. This showed inconsistency regarding to the factor that influence entrepreneurship as a career option between both genders, this statement was also supported by pre-
vious studies that found low gender stereotype and high masculine orientation which was not limited by gender, can influence intention of female on venture creation (Mueller & Daton, 2008; Sweida & Reichard, 2013).

Haus et al. (2013) also found that regardless of significant differences in motivation to become entrepreneurs, the differences on the actual venture creation between male and female were still found to be unclear. Education could also become a determinant factor of female to become entrepreneurs, previous study (Lo & Law, 2012) stated that regardless of the higher result of intention to become entrepreneur on male students compared to female students, after they received education related to entrepreneurship, both showed similar response towards venture creation.

CONCLUSION AND RECOMMENDATION

The present study showed that with the development of technology especially regarding to e-commerce which gave users easier means to promote their products, female students were proven to have a higher intention on becoming new entrepreneurs, a career choice that predominated by their male counterparts. The focus of product and venture creation were to increase work fields and decrease unemployment rate in Indonesia. Thus, with the stereotype barrier that obstructed female on their venture creation getting lowered more and more, it was expected to increase the amount of entrepreneur, which then promoted the availability of work fields and absorbs more employees. For academic institution, this study hoped to give broader insight, where female that considered choosing entrepreneur career as an option grew larger each days. If academic institution developed their potency, their intention on becoming entrepreneur hopefully would grow to become the actual realization of venture creation.

Based on the discussion and conclusion above, this study would give recommendations for further studies on the related subject. This research was conducted limited to only 114 samples, hopefully, future research could be done to larger sizes of samples, and thus could represent better the population and samples. This study was also conducted limitedly to college students, so further studies hopefully could be conducted not limited to college students, and thus could serve wider demography of respondents.

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