THE INFLUENCE OF NOVELTY SEEKING BEHAVIOR AND AUTONOMY TOWARD NEW PRODUCT TRIAL IN THE CONTEXT OF E-BUSINESS LEARNING: THE ROLE OF MEDIATION OF PERCEIVED BEHAVIORAL CONTROL

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ABSTRACT

This research aims to test new product trial model that explains the relations between novelty seeking behavior, autonomy, and perceived behavioral control. The type of this research is survey using questionnaires. The respondents are 240 college students who have done e-business transaction in the Province of Yogyakarta Special Region in Indonesia and following the learning process of e-business. Data analysis was done using structural equation modeling. The result of model testing shows that model has a good goodness of fit index and all hypotheses submitted in this research are accepted. This means that autonomy has a significant effect on perceived behavioral control and new product trial. Consumer novelty seeking has a significant effect on new product trial and perceived behavioral control has a significant effect on new product trial. Perceived behavioral control mediates the influence of autonomy toward new product trial.

Keywords: Novelty Seeking Behavior, Autonomy, Perceived Behavioral Control, New Product Trial.

INTRODUCTION

E-learning is learning by electronic means, learning is not directly from lecture notes, books, or face-to-face with the teacher, but through electronic means and web-based lessons, or on-line lessons (Fry, 2001). Theory of Trying (Bagozzi and Warshaw, 1990) is the expansion of Theory of Planned Behavior (Ajzen, 1985) that *"tried to explain the trying process of behavior that is considered problematic towards its success"*. Theory of Trying placed trial as an important variable that has to be included in the study about information technology adoption. Novelty seeking behavior becomes a factor that is believed to be able to affect new product trial. Mcalister and Pessemier (1982) stated that *"novelty seeking behavior aims to find something new in order to fulfill consumer desires"*. Applied to variety-seeking, consumers presumably like to discover new products to fulfill the desire for the unfamiliar. Novelty seeking behavior can be found in innovation diffusion literature by Rogers (1983). According to Rogers (1983), *"novelty seeking behavior involved how far an individual accepts new ideas and makes innovation*

decision independently from other people's experiences". According to Hirschman (1980), *"the basic idea that underlies the novelty seeking construction is the presence of internal drive or the power of individual motivation that is activated to look for new information"*. The desire to novel experiences between individuals varies in a continuum from novelty seekers to novelty avoiders. Novelty seeking has two main aspects that are: searching for information that is totally new and the tendency to try new variation from known products (Sugandini et al., 2017a; Sugandini et al., 2018d; Sugandini and Djawoto, 2018).

Other factors analyzed in this research are autonomy and perceived behavioral control. These two factors are important both theoretically and practically in information technology adoption. Company needs to be careful and considers autonomy and reference group implication in behavior related to sustainable innovation. Perceived autonomy support can give a deeper understanding about decision making variable in Theory of Planned Behavior model (Chatzisarantis et al., 2008). This research is conducted in the setting of e-business learning adoption for college student because it can provide benefit and provide the best method for entrepreneurship learning for college students who want to be an entrepreneur and manager in business company. The purpose of this research is to test new product trial model that explains the relations between novelty seeking behavior, autonomy, and perceived behavioral control variables. It can be stated in detail that new product trial is affected by autonomy, novelty seeking behavior, and perceived behavioral control. Besides affecting new product trial, autonomy is also expected to affect perceived behavioral control.

LITERATURE REVIEW

E-Business Learning and Trying to Adoption Innovation

E-business learning has many interpretations, but the point is e-learning is a learning model with electronic means. General form of e-business learning is learning based on computer, web, or on-line. Lessons created to be more interesting using multimedia that is the combination of text, graphic, audio, and animation (Asabere and Enguah, 2012). Lessons can be delivered to learners through various ways, such as PC, PDA, cellular phone, and TV. E-business learning can be further categorized into formal and structured lessons and informal means such as discussion, e-mail, and others. E-business learning has many benefits:

1. Make it easier to provide lessons for students.
2. Just-in-time, because e- business learning is easy to be accessed.
3. Do not wait for class.
4. Fast and easy administrative control.
5. High involvement.
6. More accurate and objective assessment.
7. Increase productivity.
8. Low cost (Sugandini et al., 2018c; Surjanti et al., 2018; Muafi et al., 2012).

Autonomy, New Product Trial and Perceived Behavioral Control

Autonomy in self-determination theory understood as self-endorsement of one's behavior and the accompanying sense of volition or willingness (Ryan and Deci 2008). An action that has

internal locus of causality affects increasing autonomy (Sheldon, 2011). Beauchamp and Childress (2001) stated that *"autonomy is, at a minimum, self-rule that is free from both controlling interference by others and from limitations, such as inadequate understanding, that prevent meaningful choice"*. An individual that is more autonomous has introjected regulation and usually more motivated on internal contingencies and self-esteem. An individual with high internal control will behave imposes pressure on themselves to act, feeling self-disparagement and shame when they fail at the behavior, feels proud if succeed in attempt to behave Autonomy tends to be positively correlated with trying to innovate with information technology (Ryan and Deci 2008). An individual will be more innovative when they feel more control on their task methods and scheduling (Amabile and Gitomer, 1984; Sugandini et al., 2017b; Sugandini et al., 2018b). Otherwise, an individual with no autonomy is not motivated to try products with new technology (Grayson, 1993).

H1: Autonomy affects positively on new product trial.

Autonomy refers to experiences to start and/or manage someone's behavior, volition, and controlling feelings (Ryan and Deci, 2008). According to self-determination theory, *"the need of autonomy is inherent in every human being, without exception (such as age, culture, or social demography background)"*. Autonomy plays an important role to an individual's behavior. Autonomy is not the opposite of behavior (or structure) control. Instead, autonomy can increase individual's perceived behavior control. Autonomy can cause expectations and clear and consistent consequences from behavioral control (Nie and Lau 2009). The relation between autonomy and psychological control is that autonomy can control and limit the practice of manipulating other people (Barber 1996).

H2: Autonomy affects positively on perceived behavioral control.

Perceived Behavioral Control and New Product Trial

Perceived behavioral control can measure individual's perception about convenience or difficulty that is needed in showing reaction on certain ways. This reflects the aspects of an individual, such as specification level and behavior aspect, the need to get cooperation from other party to finish it (Ajzen, 1985). Behavioral control can also depend on their knowledge of the information about the true function of product attributes and consumer's intention to buy towards a product is indirectly affected by their knowledge about attribute of a product but affected by their behavioral control (Kotler, 2000). Sugandini et al. (2018a); Sugandini et al., (2018b) and Smith et al., (2008), tested the application of theory planned behavior to understand consumer behavior and obtained the result that perceived behavioral control has a significant effect towards behavior.

H3. Perceived behavioral control affects new product trial.

Novelty Seeking Behavior and New Product Trial

Variety seeking has been replaced by novelty seeking (Feng and Jang, 2004). Variety and novelty seeking share the same conceptual foundation namely that consumers seek optimal levels of stimulation in their choice of behavior. Novelty is often defined as the degree of contrast between present perception and past experience, making it the opposite of familiarity. Variety

seeking can be categorized as decision making that emphasizes more emotional aspect. The idea of emphasizing the emotional aspect is called experiential thinking. Related to experiential thinking, consumption is viewed as something fun, fantasize and exhilarating activity. Experiential thinking does not emphasize rationality but on emotion. Consumers are regarded as individuals that have various variations toward hedonistic and aesthetic criteria. Individual difference in experiential thinking emphasizes on psychological aspect that is personality. Novelty seeking concept as one of experiential thinking is very interesting to be observed. On certain situation, individuals do not always process complex information if they do the novelty seeking. Novelty seeking concept can be understood through information processing perspective. Information processing perspective emphasizes more on rationality inside a human's mind. Novelty seeking behavior towards certain context involves certain thinking that needs further information seeking. This information can be in the form of suggestions from friends or certain marketing stimuli. Hirschman (1980) focused on information seeking, consumer novelty and creativity in his innovation study. He constructed hypothesis that the motive to behave that vary between stimuli is associated with the need of information.

*H4: Novelty seeking behavior affects positively on new product trial.*

H5. Perceived behavioral control mediates the influence of autonomy toward new product trial.

RESEARCH METHODS

This research used the type of research of survey on individual unit of analysis, namely college students who have done business transaction in the Province of Yogyakarta Special Region that have done e-business transaction and now studying about e-business learning process in their university. Based on research done by Mitchell and Walsh (2004), using college students as respondents in a research does not show any difference in the tendency to choose a product. College students as unit of research have specific cognitive process. According to Hurlock (1978), *"college students generally categorized as individuals who have the age of maturity between 18 until 25 years old and can be classified on late adolescence until early adulthood"*. Wagner et al. (1996) argued that *"according to aspect of development, college students at that age enter the period of consolidating their life stance"*. The numbers of questionnaires distributed are 300 copies. Questionnaires returned are 248 copies: 52.4% are male and 47.6% are female. In this research, the difference in the numbers between male and female respondents is not a problem because this research does not aim to differentiate or compare both of them in adopting e-learning technology. Age of respondents between 19-20 years old are 45.5%, 21-22 years old are 52.3%, and 23-24 years old are 2.2%. Hypothesis testing and causal relationship are done by observing path coefficient from standardized regression weights and critical value ratio (Sugandini et al., 2018d). Model testing used Structural equation modeling. Further, questionnaires that are given in private to respondents came from several sources and have been modified by researcher. Instrument to measure autonomy (At) and New Product Trial (NPT) is adopted from Ahuja and Thatcher (2015), instrument to measure consumer novelty seeking behavior (NSB) is adopted from Manning et al. (1995), instrument to measure perceived behavioral control (PHC) adopted by Smith et al. (2008).

RESEARCH RESULT

The result of validity testing based on confirmatory factor analysis shows factor loadings of each instrument that shape every construct is significant with the value of p value<0.05 and the value of CR is more than 2.56. The result of instruments reliability testing with construct reliability and extracted variance shows that the instruments are reliable, indicated by the value of construct reliability that is above 0.07 and variance extracted is greater than 0.50. Testing result using structural equation model with AMOS program can be seen in Figure 1. From the evaluation result on submitted model, from all used criteria turn out that most of them show good results and the model can be accepted. To test the hypothesis of causal relationship between autonomy, consumer novelty seeking, perceived behavioral control, and new product trial, presented the path coefficient that shows causal relationship between mentioned variables in Table 1.
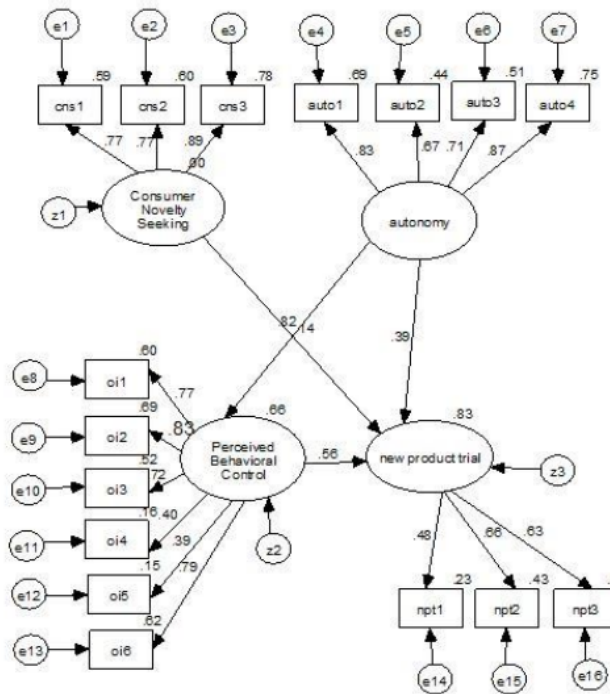
FIGURE 1
STRUCTURAL EQUATION MODELING NEW PRODUCT TRIAL

Table 1 shows the result of hypothesis testing done by comparing the value of probability (p) and CR, considered significant if the value of $p < 0.05$. All hypotheses are accepted.

Table 1				
PATH COEFFICIENTS (STANDARDIZE REGRESSION) BETWEEN VARIABLES				
Path	Path Coefficient	CR	Probability (p)	Explanation
Autonomy → Perceived behavioral control	0.815	11.500	0.000	H1 accepted
Autonomy → New product trial	0.386	2.884	0.004	H2 accepted

Perceived behavioral control → New product trial	0.560	4.024	0.000	*H3* accepted
Consumer Novelty seeking → New product trial	0.136	2.186	0.029	*H4* accepted

In order to answer the fifth hypothesis, it is required to have a measurement of direct and indirect effect as in Table 2. The total effect of autonomy toward new product trial with the mediation from perceived behavioral control is 84.3%. The direct effect of autonomy toward new product trial is 38.6%. The direct effect of Perceived behavioral control toward new product trial is 56.0%. The direct effect of autonomy toward Perceived behavioral control is 81.5%. The indirect effect of autonomy toward new product trial with the mediation from Perceived behavioral control is 45.6%. The significance test of mediation effect with sobel test shows the result of 2.414 which is greater than 1.96 with the significance level of 5% (one-tailed probability: 0.0078 and two-tailed probability: 0.0157). Therefore, the fifth hypothesis that stated that Perceived behavioral control mediates the influence of autonomy toward new product trial is accepted.

Table 2
RECAPITULATION OF DIRECT EFFECT, INDIRECT EFFECT, AND TOTAL EFFECT BETWEEN VARIABLE

Dependent variable	Autonomy			PBC			NSB		
	SDE	SIDE	STE	SDE	SIDE	STE	SDE	SIDE	STE
PBC	0.815	0.000	0.815	0.000	0.000	0.000	0.000	0.000	0.000
New Product Trial	0.386	0.456	0.843	0.560	0.000	0.560	0.136	0.000	0.136

Note: SDE: Standardize Direct Effect, SIDE: Standardize Indirect Effect, STE: Standardize Total Effect

DISCUSSION

This research tried to strengthen research findings related to new product trial. Based on theory of trying, the result of this research shows that new product trial is significantly affected by autonomy, perceived behavioral control, and consumer novelty seeking. The influence of autonomy towards perceived behavioral control is also supported. Therefore, new product trial model submitted in this research can be accepted. The influence of autonomy towards new product trial supports self-determination theory (Ryan and Deci 2008). The result of this research shows that college students with high self-rule of self-control will be easier to try e-business learning. E-business learning is a new technology in the education field that requires the students to interact with new education model. College students have freedom in controlling their activities, and can easily manage their time to adopt e-business learning. College students have the autonomy or freedom in adopting this e-business learning technology, this is shown by college students that decide the task to be assigned, when will be done, and how to finish the task. College students can control and manage e-business learning contents for every assignment and schedule the task completion by themselves. The more autonomy of college students, the trial ability of e-business learning becomes high. College students who have autonomy will be more interested to try e-business learning technology as well. The finding of this research supports findings by Sheldon, (2011); Beauchamp and Childress (2001; Amabile and Gitomer, 1984) which stated that "*autonomy affects the willingness of college students to adopt e-learning. Otherwise, an individual who has no autonomy is not motivated to try product innovation with*

new technology" (Grayson, 1993). Autonomy also has a positive effect on perceived behavioral control. College students who have autonomy are free to control the use of their data packet. College students can also increase their knowledge and skills to use e-business learning through the use of data packet that they have. This research finding supports Ryan and Deci (2008; Muafi et al., 2012), who stated that *"autonomy has an important role to control an individual behavior"* (Nie and Lau, 2009 and Barber, 1996). This research finding shows the influence of perceived behavioral control towards new product trying, supports the findings by Smith et al. (2008) and Sugandini, 2013. Another finding from this research is novelty seeking behavior affects new product trial. This shows that an individual who likes new information will always search for that information to all sources and this individual increasingly fond of trying new product. Thus also happens to college students, college students who are required to adopt e-business learning will continue to seek new information and try this new technology. On certain situation, individuals will seek new experience and information related to technology that they will adopt, in experiential thinking, information seeking is viewed as something fun, fantasize and exhilarating activity and experiential thinking does not emphasize on rationality but on emotion. Hirschman (1980) also stated that *"innovator tends to need information and behave to seek new variation/novelty in attempt to adopt the product"*.

CONCLUSION AND SUGGESTIONS

This research shows that e-business learning adoption that is proxied by new product trial on college students in Special Region of Yogyakarta is affected by novelty seeking behavior, perceived behavioral control, and autonomy. Autonomy has the most dominant effect towards new product trial. Perceived behavioral control mediates the influence of autonomy toward new product trial. This can be explained that, college students who have autonomy in decision making tend to be easier to try new technology, these college students are not easily influenced by intervention of other people to take action. The feelings of freedom cause college students to easily try new technology innovation. This research only used college students as e-business learning user respondents, on further research, for trying e-business learning adoption behavior can be done with respondents from lecturer, educational staff, and college students simultaneously, using multi trait-multi method. It will give a clearer picture about new product trial model. The research about e-business learning still needs to be studied more deeply, because according to Tao et al. (2006), e-learning can facilitate high-level interaction and collaboration between lecturer, educational staff, college students, and their colleagues that still do the learning traditionally. E-business learning can empower college students without facing a rigid schedule (Borstorff and Lowe 2007; Muafi et al., 2018). Further research will be better to add variables of overload interaction (Ahuja and Thatcher, 2015), new product awareness, and consumer independent judgment making (Manning et al., 1995), and also analyze about barrier to adopt e-business learning including lack of computer access in lecturer's offices, inadequate training for lecturers, lack of comfort using computers, students interest, lecturers' interest, and problems with internet access (Muafi et al. 2018; Muafi et al., 2012).

REFERENCES

Ahuja, M.K. & Thatcher, J.B. (2015). Moving beyond intentions and toward the theory of trying: Effects of work environment and gender on post-adoption information technology use. *MIS Quarterly, 29*(3), 427-459.

Ajzen, I. (1985). From intentions to actions: A theory of planned behaviour, In Kuhl, J. & Beckmann, J. (Eds.), *Action control: From cognition to behavior*. New York: Springer-Verlag.

Amabile, T.M. & Gitomer, J. (1984). Children's artistic creativity: Effects of choice in task materials, *Personality and Social Psychology Bulletin, 10*(2), 209-215.

Asabere, N. & Enguah, S. (2012). Use of information & communication technology (ICT) in tertiary education in Ghana: A case study of electronic learning (e-learning). *International Journal of Information and Communication Technology Research, 2*(1), 62-68.

Bagozzi, R.P. & Warshaw, P.R. (1990). Trying to consume. *Journal of Consumer Research, 17*(2), 127-140.

Barber, B.K. (1996). Parental psychological control: Revisiting a neglected construct. *Child Development, 67*(6), 3296-3319.

Beauchamp, T. & Childress, J. (2001). *Principles of biomedical ethics (5th edition)*. New York: Oxford University Press.

Borstorff, P.C. & Lowe, S.L. (2007). Student perceptions and opinions toward e-learning in the college environment. *Academy of Educational Leadership Journal, 11*(2), 13-30.

Chatzisarantis, N., Hagger, M. & Brickell, T. (2008). Using the construct of perceived autonomy support to understand social influence within the theory of planned behaviour. *Psychology of Sport and Exercise, 9*(1), 27-44.

Feng, R. & Jang, S. (2004). Temporal destination loyalty: A structural initiation. *Advances in Hospitality and Tourism Research, 9*, 207-221.

Fry, K. (2001). E-learning markets and providers: Some issues and prospects. *Education+Training, 43*(4/5), 233-239.

Grayson, J.P. (1993). Skill, autonomy, and technological change in Canada. *Work and Occupations, 20*(1), 23-45

Hirschman, E.C. (1980). Innnovativeness, novelty seeking and consumer creativity. *Journal of Consumer Research, 7*(3), 283-295

Hurlock, E.B. (1978). *Developmental psychology: A life-span approach (Fifth Edition)*. McGraw-Hill, 390.

Kotler, P. (2000). *Marketing Management : Milenium Edition*. Prentice Hall Intl, Inc New Jersey.

Manning, K., Bearden, W. & Madden T.J. (1995). Consumer innovativeness and the adoption process. *Journal of Consumer Psychology, 4*(4). 329-345.

McAlister, L. & Pessemier, E. (1982). Variety-seeking behavior: An interdisciplinary review. *Journal of Consumer Research, 9*(3), 311-322.

Mitchell, V. & Walsh, G. (2004). Gender differences in German consumer decision making styles. *Journal of Consumer Behavior, 3*(4), 331-346.

Muafi., Gusaptono, R.H., Effendi, M.I. & Charibaldi, N. (2012). The information technology (it) adoption process and e-readiness to use within Yogyakarta Indonesian small medium enterprises (SME). *International Journal of Information and Communication Technology Research, 2*(1), 29-37.

Muafi., Thamrin, H.M. & Priyadi, U. (2018). Life skilss training (business, IT and environment): The driving force of entrepreneurial intention and pro environmental behavior. *International Journal of Mechanical Engineering and Technology, 9*(3), 52-61.

Nie, Y. & Lau, S. (2009). Complementary roles of care and behavioral control in classroom management: The self-determination theory perspective. *Contemporary Educational Psychology, 34*(3), 185-194.

Rogers, E.M. (1983). *Diffusion of innovations (3rd edition)*. Free Press: New York.

Ryan, R. & Deci, E.L. (2008). A self-determination theory approach to psychotherapy: The motivational basis for effective change. *Canadian Psychology, 49*(3), 186-193.

Sheldon, K.M. (2011). Integrating behavioral-motive and experiential requirement perspectives on psychological needs: A two process model. *Psychological Review, 118*(4), 552-569.

Smith, J.R., Terry D.J., Manstead, A.S., Louis, W.R., Kotterman, D. & Wolfs, J. (2008). The attitude-behavior relationship in consumer conduct: The role of norms, past behaviors, and selfidentity. *The Journal of Social Psychology, 148*(3), 311-333.

Sugandini, D. (2013). Karakteristik Inovasi, Pengetahuan Konsumen, Kecukupan Informasi, PersepsiRisiko Dan Kelangkaan Dalam Penundaan Adopsi Inovasi Pada Masyarakat Miskin. Disertasi, Universitas Gadjah Mada, Yogyakarta.

Sugandini, D., Purwoko., Pambudi, A., Resmi, S., Reniati., Muafi. & Kusumawati, R.A (2018a). The role of uncertainty, perceived easy of use, and perceived usefulness towards the technology adoption. *International Journal of Civil Engineering and Technology, 9*(4), 660-669.

Sugandini, D., Rahatmawati, I. & Arundati R. (2018b). Environmental attitude on the adoption decision mangrove conservation: An empirical study on communities in special region of Yogyakarta, Indonesia. *Review of Integrative Business and Economics Research, 7*(s1), 266-275.

Sugandini, D., Sudiarto., Surjanto, J., Maroah, S. & Muafi. (2018c). Intention to delay: The context of technology adoption based on android. *International Journal of Civil Engineering and Technology, 9*(3), 736-746.

Sugandini, D., Mujanah, S., Sudiyarto., Indah, P.N., Priyadi, U. & Muafi. (2018d). The effect of integrated marketing communication, environmental responsibility and voluntariness toward electricity saving behavior intention. *International Journal of Civil Engineering and Technology, 9*(4), 86-95.

Sugandini, D. & Djawoto. (2018). The Influence of Advertising, Knowledge, and Attitudes towards Electricity-Saving Behavior. *Review of Integrative Business and Economics Research, 7*(3), 172-180.

Sugandini, D., Rahatmawati, I. & Istanto, Y, (2017b). Adoption of natural dyes for batik artisans in Yogyakarta, Indonesia. *Review of Integrative Business and Economics Research, 6*(1), 349-359.

Sugandini, D., Wendry, B. & Muafi. (2017a). Influence of quality relationship and satisfaction on loyalty: Study on supplier in Indonesia. *Journal of Business & Retail Management Research, 11*(4), 46-51.

Surjanti, J., Seno, D.N., Hadi, H.K. Maroah, S., Siswanti, Y., Muafi. & Isfianadewi, D. (2018). The role of M-learning on effective learning media in higher education. *International Journal of Civil Engineering and Technology, 9*(4), 77-85.

Tao, Y.H., Yeh, C.R. & Sun, S.I. (2006). Improving training needs assessment processes *via* the Internet: System design and qualitative study. *Internet Research, 16*(4), 427-449.

Wagner, T.H., Patrick, D.L., Bavendam, T.G., Martin, M.L. & Buesching, D.E. (1996). Quality of life of persons with urinary incontinence: Development of a new measure. *Urology, 47(*1), 67-71.

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