

MANAGING SUSTAINABLE CONSUMPTION OF E-COMMERCE PLATFORMS: A USES AND GRATIFICATION THEORY (UGT) PERSPECTIVE

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Abstract

The purpose of this paper is to provide some important business guidance in managing sustainable consumption of e-commerce platforms by examine the effect of the perceived effectiveness of e-commerce platforms (PEEP) in perceived economic benefits to predict sustainable consumption and adding a pandemic fear as a boundary condition. Background: Pandemic has impact business activities, e-commerce growing faster as the number of online user increasing sharply, business need clear guidance to improve consumer intention of using e-commerce platforms over the time. Novelty: This study conducting research in different economics condition, it is in Indonesia, which is known as the highest online transaction country in South East Asia countries, thus it could provide different UGT perspective on e-commerce platforms. Research Methods: this research used quantitative survey and analysis method, using 330 samples with PLS analytical technique, support by warp PLS 7.0 and it also has adopted uses and gratification theory as a base of the conceptual model. Finding/Results: This research found a pandemic fear become a positive moderating effect to relationships among PEEP and economics benefits, but it has no effect to the relationships of economics benefit and sustainable consumption. This research contributed analysis of how economics benefits mediate the PEEP and sustainable consumption relation that also affected by pandemic fear Conclusion: implication for business and theory are also discussed.

Keywords: Economics Benefits, E-Commerce Platforms, Perceived Effectiveness, Sustainable, Consumption, Pandemic Fear, Use and Gratification Theory

INTRODUCTION

Global Pandemic Covid-19 has impacted many aspects in life including economics, perceived health risk during pandemic has changed consumer preference to meet their needs than shopping offline (Fihartini et al., 2021) social distancing has made home centric life style as well as e-commerce to minimalize physical contact, contagious disease force business to turn their business online, number of digital consumer increase very fast from 2018 to 2020 in Southeast Asia, it was about 60 million or 12% rate per year, and 70% of 443 million people in Indonesia, Malaysia, Philippines, Singapore, Thailand, Vietnam has become digital consumer (A Sync Southeast Asia Report, 2020).

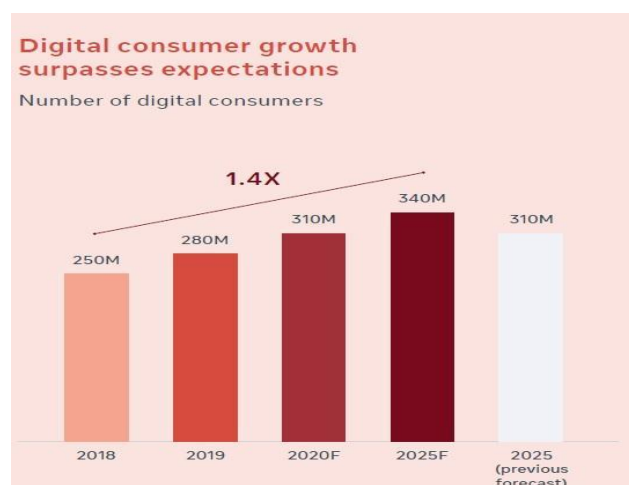


Figure 1. Digital Consumer Growth in ASEAN Countries During 2018-2020
Source: Facebook & Bain and Company, 2020

As we can see on the Figure 1, that digital consumer growth in Southeast Asia as much as five years number of digital consumers forecast, it was surpassing expectation. Since pandemic, people have less time to spend out of home for shopping, working, travelling, studying and etc, they have to turn their activities to online, business must adapt to this condition for their continuity.

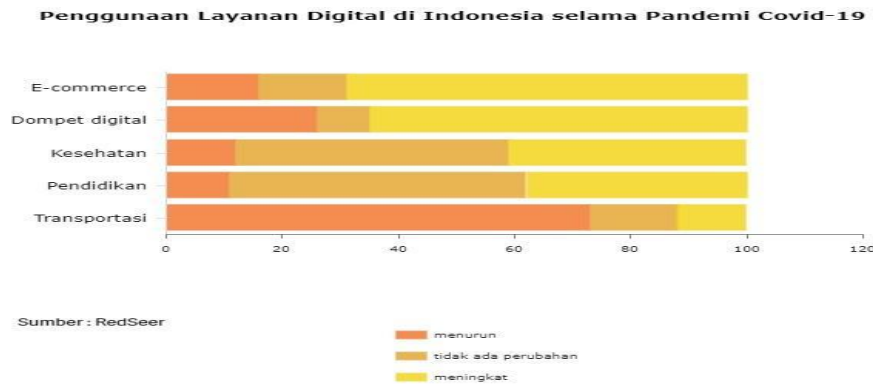


Figure 2. Digital User in Indonesia During Pandemic Covid-19
Source: Redseer, 2020

From the figure.2 above, we can see that e-commerce has paved during the pandemic among other online activities.

Nilai transaksi **belanja online** di Indonesia diperkirakan hampir US\$ 72 miliar atau sekitar Rp 1.047,6 triliun pada 2025. Angka ini juga melonjak dibandingkan proyeksi awal US\$ 48 miliar.

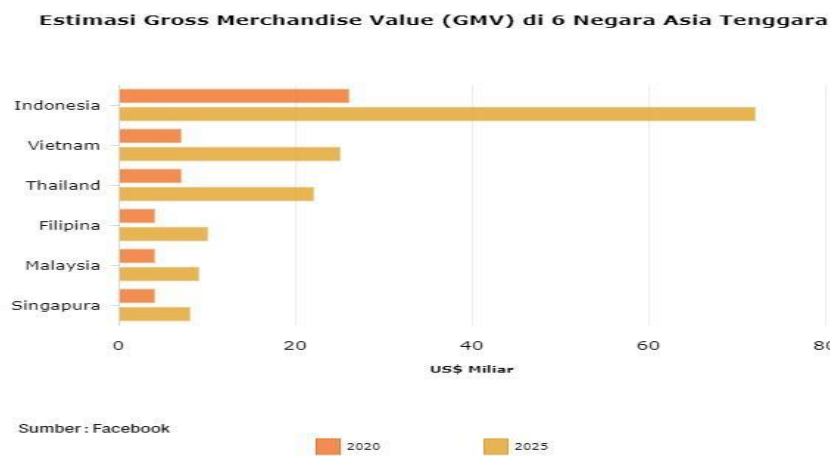


Figure 3. Estimation Gross Merchandise Value (GMC) in ASEA
Source: Facebook & Bain and Company, 2020

The gross merchandise value (GMC) estimation of Indonesia is US \$ 72 billion in 2025, it also increases compared to the previous estimation, which was only US \$ 48 billion, thus Indonesia has the highest GMC estimated in Southeast Asia Countries (see the fig. 3).

Social distancing in pandemic has influence the consumer behavioral intention to be online users (Novita et al., 2020) furthermore, e-commerce has grown faster and intense during pandemic (Ayu & Lahmi, 2020), e-commerce included all business development process such as marketing, selling, delivering, service and consumer payment, supported by wide business partner (Permana et al., 2021). Thus, business needs to adapt to the present condition. Firm need data on the effectiveness of e-commerce platform on consumer, so that business get clear guidances to continue the business. Since some of the previous research have yet to address how e-commerce platforms can be useful both firm and

consumer in pandemic (Tran, 2021). The current study addresses to aforementioned gap by analyzing sustainable consumption of e-commerce during pandemic in different economics condition country, it is conducted in Indonesia which is known as the highest online consumption country in the South East Asia countries (A Sync Southeast Asia Report, 2020). Nowadays internet technology has become an important part of everyone to support their activities (Nurdianasari & Indriani, 2021), the development of technology has enabled e-commerce platforms to transform retailing landscape (Vinerean, 2020). However, despite the great potential of e-commerce platform business, there is still limited scientific literature that examined consumer intention to sustainable e-commerce platform from different UGT perspective. We believed that seeing this from different UGT prospective will contribute new context to the extent of literature. This study also provides an explanatory study that developed a model of perceived effectiveness of e-commerce platforms (PEEP) and analyze the effectiveness of e-commerce platforms to sustainable consumption, thus, this research will analyze whether economic benefits is a potential moderating variable to PEEP and sustainable consumption, so that this research can draw the relationship between use and gratification theory (UGT). UGT can explain the reason why consumer intend to take the action to chose a specific medium to satisfy their needs (Kaur, Dhir, Bodhi, et al., 2020) and it also considered the current condition of pandemic through pandemic fear as a moderating variable.

It will also provide important insight into the emerging of e-commerce platforms, information-seeking behavior and social interactions (Abid & Harrigan, 2020).

LITERATURE REVIEW

Uses and Gratification Theory (UGT)

The UGT refers to the study of what motivated or what hold people to use online media and several content that fulfill users psychological needs and social needs (Hossain, 2019), UGT considered user as an active agent that could control over their media social (Kaur, Dhir, Chen, et al., 2020). UGT enables us to understand why and how user actively seek and use a specific medium to meet their needs (Ray et al., 2019). This research use UGT perspective on e-commerce platforms for these two main reasons, the first UGT is a well utilized and tested theoretical framework to understand user's reason and motivation in using platforms, and the second reason is it has been successful used in previous research in different context including social media or other electronic retail segments. Therefore, we used this theory perspective in explaining the linkaged among the variables.

Perceived Effectiveness of E-Commerce Platforms (PEEP)

PEEP refers to consumer perception of e-commerce platforms, which has safeguard mechanism that can protect online transaction from the potential risk (Tran, 2021). As the advancement in technology, e-commerce develop faster, moreover it is not the same with at the beginning of the emergence of e-commerce it only focused on product, but as it has grown, it has reshaped the service sector as well, consumer (Zhang et al., 2019). Thus, nowonder if it increases consumer's comfortable and behavior intention, despite of the massive potential of e-commerce, however, many e-commerce platforms face the same problem is that trust relationship are unavailable (Cen et al., 2020). So that, nowadays trust relationship is important issue for e-commerce platforms to overcome, when consumer use e-commerce platform for their transaction, they need to feel safety, ensure that they personal data is save and no leakage or other potential risk (Hubert et al., 2017). based on the UGT, online consumer concern with the privacy and security when using online transaction and it also suggest consumer to use trustable e-commerce platform or firm that triggering gratification from their commitment (Simon, 2017).

Economics benefit here refers to consumer perception that e-commerce platforms offer some benefits such as ease of use such as discount, promotion or other preferential of activities (Liu et al., 2020) Nowadays, e-commerce offer lot of ease of use and time saving to consumer, that make consumer more comfortable, such as use of e-commerce using augmented reality that enable consumer to shop online, without the need for marker to identify the surface (marketless augmented reality) (Alves & Reis, 2020). Based on UGT, economics benefits motivate consumer intention to engage in sustainable consumption during any condition (Tran, 2021). So, the following hypotheses are formed:

H₁: PEEP has positive affect on Economics benefits

H₂: Economics benefit has positive affect on sustainable consumption

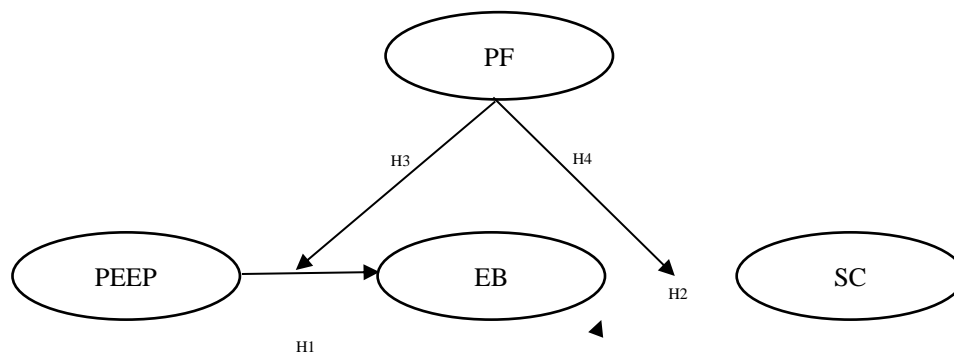
Pandemic Fear

Pandemic defined as epidemic occuring the worldwide or over very large area, acrossing international boundary and it usually affecting a large number of people. ("Erratum to (Bulletin of the World Health Organization, (2011), 89, 9(554)),", 2011). At present Covid-19 is becoming a pandemic as it has infected 233.127.914 people worldwide and resulting 4.770.224 people died (*Worldmatter, Coronavirus*, 2021), fear of this pandemic has become emerging issue and affected consumer behaviour intention, people reduce visit markets, shops and restaurant, fear of pandemic Covid-19 influence consumer purchasing intention (Hesham et al., 2021) according to survey and research done by facebook (A SYNC SOUTHEAST ASIA REPORT, 2020) that number of digital user increased sharply especially during pandemic

in the early of 2020. Previous study conceptualized fear of pandemic as a health risk of contagious disease and that influence consumer to transfer their transaction into online or using e-commerce platform to meet their needs.(Tran, 2021). Generally, sustainable consumption refers to the use of goods and services to meet the basic need, and achieve a better quality life and ensuring safety for environment, toxic material and pollutant over the lifecycle so it is also safe for the next generation(Reisch, 1998) in line with this logic previous research conceptualized Sustainable consumption as green lifestyle consumption, in fulfilling their needs by considering no damage to the earth resources or risking the next generation (Tran, 2021). Temuan penelitian Tran (2021) membuktikan bahwa semakin tinggi pandemic fear maka motivasi konsumen dalam menggunakan ecommerce karena mengurangi risiko, biaya lebih murah dan memfasilitasi konsumen dan pembeli. Sehingga, hal ini juga dapat mendorong konsumsi berkelanjutan. So, the following hypotheses are formed:

H3: Pandemic fear of online users positively moderates the relationship between PEEP and economic benefit thus, PEEP affected economics benefits stronger when pandemic fear is higher.

H4: Pandemic fear of online users positively moderates the relationship between economic benefits and sustainable consumption, it means that economic benefits affect sustainable consumption stronger when pandemic fear is higher.



*PEEP: Perceived Effectiveness of E-commerce; EB: Economic Benefit; PF: Pandemic Fear Sc: Sustainable Consumption

Figure 4. The Proposed Research Models (Adopted from The Previous Research by Tran (2021))

RESEARCH METHOD

Sample

The sampling technique used is non-probability sampling and used is purposive sampling method, thus, the sample taken with a certain criteria. The population in this study are respondents who make online purchases on e-commerce platforms. The sample consist of 330 consumers from Indonesia based market. Respondents were adopted from online consumer, due to increasing number of online users during the pandemic in South east Asia especially in Indonesia based on survey of Facebook and Bain and company (2020), it was 70% of 443 million people in South east Asia become online users.

Data Collection

Data collected from online survey using google form. A valid online consumer is identified as one who had online shopping experience during the pandemic Covid-19 (Agustus to October, 2021).

Instrument

Research construct's scales were adopted, revised and translated in from English to Indonesian since the survey conducted in Indonesia. This study refines some items and attached the final questionnaire form. Responses were measured using a 5-point agreement scale.

Control Variables

To ensured the result will not biased, this research using control variabel (Cooper and Schindler, 2013). Demographic characteristics, such as age, gender, education and income, domicile, were used as the control variable in this research.

Table 1. Demographic Data

items	Categories	Frequency	%
Age	<20	38	11,5
	20-30	241	73
	31-40	30	9,1
	41-50	7	2,1
	51-60	11	3,3
	>60	3	0,9
Sex	Men	121	36,7
	Woman	209	63,3
Education	High school	156	47,3
	Bachelor	119	36,1
	Master	49	14,8
	PHD	6	1,8
Income	< 2,5 million	191	57,9
	2,5 to 5 million	85	25,8
	5 to 7 Million	29	8,8
	>7,5 million	25	7,6

Measurement

This research using a quantitative approach. the analytical tool used is Warp PLS 7.0. There are 4 variables in this study which were adapted from Tran's (2021) research, those are : Perceived effectiveness of e-commerce platforms that using 4 statement items, Economic benefits (EB) also using 3 measurement items, and Pandemic fear (PF) using 3 statement items, and so the Sustainable consumption (SC) uses 3 measurement items.

RESULTS AND DISCUSSION

Measurement Quality

This research was assisted by the Warp PLS 7.0 analysis tool, the first test in this study was model fit testing, followed by validity, reliability and hypothesis testing. The fit model is seen from the Tenenhaus GoF value, in this study the Tenenhaus GoF (GoF) value is 0.442, meaning that the model is appropriate (Tenenhaus, Amato, & Esposito Vinzi, 2004). Furthermore, the validity and reliability tests are also in accordance with the criteria that the Cronbach's Alpha and AVE values > 0.5. as shown in the table , belowed:

Table 2. Validity and Reliability Testing Result

	PEEP	EB	PF	SC
Cronbach's Alpha	0.82	0.76	0.95	0.89
AVE	0.66	0.67	0.90	0.83

Hypothesis Testing

Once the model fit and the questionnaire was valid and reliable, then the next step was to test the hypothesis. Based on the results of data analysis with the help of Warp PLS 7.0, it was concluded that **hypothesis 1** is accepted, meaning that PEEP has a positive and significant effect on economic benefits. When shopping online on an e-commerce platform, it is believed that it can help consumers and protect them from any potential risks, they can feel that the e-commerce platform is economically useful and profitable. Furthermore, **hypothesis 2** is accepted, meaning that economic benefits have a positive and significant effect on Sustainable consumption (SC). When users feel they get economic benefits such as shopping savings on e-commerce platforms during a pandemic, it can encourage sustainable use. **Hypothesis 3** is accepted, meaning that PEEP affected economics benefits stronger when pandemic fear is higher. When users are fear of facing a pandemic, users feel that using e-commerce avoids the risks they can get and provides economic benefits. And however, **Hypotesis 4** is rejected. This means that users continue to use the e-commerce platform on an ongoing basis without being affected by pandemic fear. Pandemic fear did not streghten the relationship between economic benefits and sustainable consumption. The results of hypothesis testing can be seen in Table 2.

Table 3. Hypotesis Testing Result

Hypotesis	P Value	Path coefficient	Result
H ₁	<0.01	0.44	Accepted
H ₂	<0.01	0.53	Accepted
H ₃	<0.01	0.15	Accepted
H ₄	0.23	-0.04	Rejected

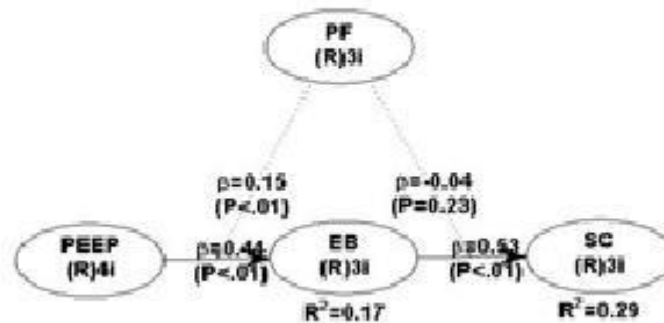


Figure 5. The Result of Proposed Model

Discussion

The finding supported all research hypotheses but the hypothesis 4, which mean that the pandemic fear did not streghten the relationship between economic benefit an sustainable consumption, it contrast to the previous research’s result that has done by Tran,2021.respondent answer’s could be vary and different over the time, the data in this research collected at the end of 2021, which is the pandemic is decrease and the total of Covid-19 infacted is lower comparate to the previous period of pandemic during end of 2019 until mid of 2021.However, pandemic fear success moderate the relationship betwee PEEP an economic benefits.

This study enrich the literature by adding pandemic fear as a boundary effect in model proposed thsu it can provide more insight about how firms could improved their strategy.

Theorithical and Managerial Implication

This research has some managerial and theorithical implication. It examined relation between PEEP, economic benefits and sustainable consumption with fear of pandemic as moderation.it is add to the study that has done by (Tran, 2021), sinci this research done in Indonesia, the developing country which is also one the country which has highest increasing online users especially during pandemic in soutesat asia based on Facebook survey,2020.it give different view of UGT lens that after pandemic consumer might be permanently change their purchase behavior become online users, thus fear and pandemic no longer streghten relationship between economic benefits and sustainbale consumption. However, this research give alert to manager to be prepared for such condition as pandemic, since it can happens anytime and the firm should have abetter strategy for their e-commerce business in regarding number of online user is keeping increased from time to time as mentioned in Facebook survey, 2020.they have to improved the online user perception on e-commerce platforms, by improving online protection to ensure their online consumer transactions and personal data are safe.moreover, effective in saving their time and money by online buying.

Limitation and Research Direction

In this research there are opportunities to be several limitations. **First** the survey in this research was conducted in en emerging economy country Indonesia. Consumer respons could be very subjective depend on their own prespective on e-commerce platform. Rerpondent from more advance country could give vary and different answers.**Second** the data collected during August to October, 2021. In this period, pandemic covid-19 has decreased compare to the previous period of pandemic in Indonesia (end of 2019 up to July 2021). Respondent’s answer could be different over the time. Longitudinal framework with a time series databased that analysed boundary effect of pandemic fear on PEEP, economic

benefits and sustainable consumption relationship can present more completed about possible causation which can improved strategic effectiveness.

CONCLUSION

This research provides a systematic framework that examined relationship between PEEP, economic benefits and sustainable consumption in UGT perspective with the boundary the pandemic fear. It is an interesting research due to it has done in Indonesia which is the the country that has the biggest number of online users in South East Asia country. Findings on this research could be important clues for manager to build an effective mechanism to decrease the online consumer's data privacy issued, thus manager should improve the consumer data and transaction protection to have an effective strategy for sustainable consumption. This is also remind the manager to be ready at anytime in facing such a condition as a pandemic, since it could happen again at anytime. Moreover, firms must has an effective strategy for e-commerce platform combined with offline methods supplies since now consumer tend to turn their offline shopping habit to online shopping, especially during the pandemic.

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