Understanding Restaurant Customers' Environmental Behavior in the Social Media Context: An Application of Theory of Planned Behavior

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ABSTRACT
Social media users are now increasing, this makes social media to become an effective tool for companies to foster intentional consumer intentional behavior. This study uses the model of the theory of planned behavior to see its effect on intentional behavior on social media and also the moderating effect of economic rewards and social rewards and their effect on consumer offline behavior. This quantitative research using the Structural Equation Model (SEM) method begins in 2023 by focusing on Z generation consumers in the food and beverage industry, especially franchise fast food restaurants in Indonesia. Data collection was carried out by distributing questionnaires online using Google Forms, which resulted in 166 respondents. Data analysis and processing using SmartPLS 3 software. The findings of this study indicate that, the planned behavior theory model consisting of attitude, subjective norm, and Perceived behavioral control can influence consumer intentional behavior even though attitude is proven not to have a significant effect. Economic reward and social reward are also proven to moderate the relationship between intentional behavior and offline consumer behavior. This research provides managerial implications for companies engaged in food and beverage, especially fast food restaurants, that want to contribute to making good changes to the world through the creation of certain activities or regulations published through social media.

Keywords – Theory of planned behavior, social media, offline behavioral environmental, economic reward, social reward, behaviora intentional.

INTRODUCTION
As environmental concerns increase, customers are increasingly paying attention to the social and environmental responsibility of the companies they choose. Han et al., (2010); Jang et al.,(2017) by showing greater intention to pay more for environmentally friendly products/services from these companies (Jang et al., 2017). With an increasing number of customers seeking pro-environmental products/services, restaurant companies have helped position themselves as a competitive advantage over other competitors (Jang & Zheng, 2020). Fast food companies are also increasingly considering developing strategies to advertise pro-environmental actions. In some restaurant companies, social media has been used to actively advertise and share information about their environmental initiatives thereby encouraging customer engagement in such activities.

Global warming and the covid-19 outbreak over the past few years have also
become consumer considerations in choosing products or services (Han et al., 2010). Some fast food companies have also responded to this environmental and health issue by publicizing steps to help green the earth on their social media accounts. Starting with setting regulations, stopping the use of plastic straws, replacing plastic with environmentally friendly bags, and launching tumblers as a step to reduce cup drinks. Fast food companies are also working to replace their packaging materials with more environmentally friendly materials that can be recycled.

These measures have proven to have a positive impact on environmental health. For example, the McDonald's fast food restaurant cooperation movement with EDF (Environmental Defense Fund) can reduce 300 million pounds of packaging and recycle 1 million used pieces of packaging, and generally reduce waste by 30%. KFC's No Straw Movement also showed positive results for the environment. This is evidenced by the 91% reduction in the use of plastic straws by the end of 2018.

Researchers using the Theory of Planned Behavior consider green intentions and behaviors as self-interest motives (Han, 2015). Customer attitudes, subjective norms, emotions, past experiences, and environmentally friendly activities in their daily lives are the points of concern (Han et al., 2015). Therefore, rewards can be used to retain company customers and make them follow existing regulations (Lee et al., 2015). The rewards used can be economic rewards and social rewards.

Previous research has examined environmental behavior in the hospitality industry from the perspective of the theory of planned behavior (TPB) Han, (2015) ; Moon, (2021) ; Shin et al., (2018) and identified the relative influence of attitude, subjective norm, and perceived behavioral control on consumers' intentions to visit an eco-friendly restaurant or stay at an eco-friendly hotel. Although these studies contribute to the literature, very little research has been conducted on consumers' behavioral intentions towards environmental activities supported or promoted by restaurant social media. In addition, few studies have investigated the impact of consumer participation in pro-environmental activities on restaurant social media on real-world pro-environmental behavior, as well as the moderating role of publicly recognized rewards that may reduce the gap between the two constructs. To fill the research gap. This study aims to identify customers' pro-environmental decision-making formulated in the context of social media by applying TPB and considering two contextual factors, namely economic rewards and social rewards. (Ajzen, 1991; Miao & Wei, 2013).

LITERATURE REVIEW

Theory of Planned Behavior

The theory of planned behavior (TPB) is one of the main sociopsychological behavioral theories used to study environmentally friendly consumer behavior (Zinoubi Ghali, 2022). This method is an updated version of Reasoned Action Theory (TRA) which assumes that behavior is predicted by attitudes, subjective norms, and perceived behavioral control. (When individuals choose certain decisions, they generally tend to be based on recommendations from others who are more trusted by them (Syah et al., 2021). Attitude is an evaluation or judgment given about the pleasantness or unpleasantness of the behavior performed by a person (Ajzen, 1991).

Subjective norm is defined as the perceived social pressure to perform or not to perform a certain behavior (Ajzen, 1991). Perceived behavioral control refers to the perceived ease or difficulty of doing
something (Ajzen, 1991). Perceived behavior can be caused by social influences but can also be influenced by prior knowledge, attitudes and personality traits (Setiawan & Hamdi, 2022). So it can reflect an individual's perception of barriers to performing certain behaviors (Zinoubi Ghali, 2022).

This TPB model is widely used by researchers to identify the determinants of environmentally friendly behavior (Prakash & Pathak, 2017; Yuriev et al., 2020). Because the model can also show certainty in organic food selection (Paul & Rana, 2012), recycling behavior (Davis et al., 2009), and environmentally friendly purchase intentions (Chen & Tung, 2014; Paul et al., 2016; Tarkiainen & Sundqvist, 2005). Purchasing decision is a person's decision where he chooses one of several alternative choices (Abadi & Herwin, 2019). Then the TPB model is empirically supported as a theoretical basis for investigating consumer green behavior (Greaves et al., 2013).

**Economy and Social Reward**

Cognitive evaluation theory (CET) says that customer motivation can affect two different things, namely, it can make a profit but can also make a loss. This motivation is defined as the desire of consumers to maintain a relationship or commitment with an organization that can be influenced by giving a reward (Jang, 2022). Customer loyalty is a deep-seated customer commitment to re-subscribe or repurchase products or services, which are chosen consistently in the future, even though situations and marketing efforts have the potential to cause behavioral changes (Nurlitasari & Syah, 2016).

CET theory suggests two types of rewards, namely, social/internal rewards and economic/external rewards. Social/internal rewards are rewards that are done by giving attention or treatment that is specific to certain customers such as exclusive event invitations and better service (Berry, 1995). Meanwhile, economic/external rewards are material rewards given for desired behavior (Melancon et al., 2011). The award can be done by giving a discount on a good/service, or offering a special price in the hope of increasing customer loyalty (Berry, 1995).

**Hypothesis Development**

**The relationship of attitudes in the TPB model with consumer behavioral intentions**

The TPB model has been applied in predicting consumers' behavioral intentions to select organic items in restaurants Shin et al. (2018), to become a regular customer in green restaurants Kim et al. (2013); Moon, (2021), or to visit green hotels Han et al. (2010); Teng et al. (2015). Applying the model, Shin et al. (2018) examined consumers' behavioral intention to choose a menu and visit a restaurant that has organic menu items. It is known that attitudes have the strongest influence on determining behavioral intentions followed by subjective norms and then perceived behavioral control. Consumers have an attitude of environmental love if they believe that environmental love behavior has positive consequences for them. The attitude that is considered positive is what consumers will later choose to behave.

Hypothesis 1: attitude has a positive influence on consumer behavior intention on environmental activities supported by restaurant social media.

**The relationship between subjective norms in the TPB model and consumer behavior intention**

Subjective norms are social pressures that are felt when carrying out or not carrying out a behavior. In other words, subjective norms are the opinions of close people, important people who
influence behavioral decisions. The reason for the direct effect of subjective norms on intention is that people can choose to perform a behavior, even if they themselves dislike the behavior or its consequences (Venkatesh, 2000). (Ajzen, 1991) Teng et al. (2015) in examining individual characteristics and what influences guests' behavioral intentions to visit environmentally friendly hotels with the TPB model, it was shown that all TPB components can significantly influence these behavioral intentions. Subjective norms were found to be the most influential factor, followed by perceived behavioral control. This shows that subjective norms are considered an important component in increasing consumers' behavioral intention to choose an environmentally friendly hotel. Hypothesis 2: Social norms have a positive effect on consumers' behavioral intention to participate in environmental activities supported by restaurant social media.

The relationship between perceived behavioral control in the TPB model and consumer behavior intention

Perceived behavioral control is defined by Ajzen, (1991) as an individual's feelings about the ease or difficulty he will experience in carrying out behavior. So, someone will have the intention to do a behavior when they have the perception that the behavior is easy to show or do, because there are things that support this behavior. Moon, (2021) attempted to identify the structure of consumer beliefs related to subscribing to green restaurants by expanding the application of the TPB model. He demonstrated the correctness of TPB to predict subscription intentions in green restaurants and confirmed that, among the components, perceived behavioral control is the most significant variable in determining subscription intentions. And the formation of perceived behavioral control is influenced by control beliefs. This study attempts to investigate how each component influences consumers' behavioral intention to engage in environmental activities supported or promoted on restaurant social media. Hypothesis 3: Perceived behavioral control has a positive influence on consumers' behavioral intentions toward environmental activities supported on restaurant social media. Hypothesis 4: Consumers' behavioral intentions toward environmental activities supported by restaurant social media have a positive influence on their behavior in real-world environments.

The relationship of economic/social rewards to consumer behavior in real-world environments

According to Cognitive Evaluation Theory (CET), types of rewards influence consumer desires and behavior at different levels (Deci & Ryan, 1985; Lee et al. 2015). CET theory suggests two types of rewards namely, social/internal and economic/external rewards. Internal rewards refer to the intrinsic satisfaction of a behavior that is related to the underlying reason for performing the behavior (Melancon et al., 2011). Like social/internal rewards in hospitality, such rewards mean receiving preferential treatment or more attention from the service provider.

While external rewards can be described with money as a reward for certain behaviors. Since money is generally viewed as an external reward (Rummel & Feinberg, 1988). Social rewards are known to be more effective in increasing an organization's sense of belonging and emotional attachment by reinforcing intrinsic reasons for emotional attachment to the organization (Rosenbaum et al., 2005). Customers who receive social rewards such as special offers/services will consider themselves as
special customers, thus encouraging them to maintain a long-term relationship with an organization (Muniz & O’Guinn, 2001). Financial rewards such as product/service discounts/special offers also tend to increase trust and commitment (Van Kenhove et al., 2003) to build engagement in developing a relationship with the company (Peterson, 1995).

While some researchers argue that social rewards are more effective than economic rewards in building emotional engagement (Deci & Ryan, 1985), others argue that financial rewards are a stronger driver of relational marketing to sustain customer behavioral intentions (Noble et al., 2014). Both different opinions are useful for investigating the extent to which economic and social rewards influence and moderate customer continuance behavior in the context of social media. There is also a discrepancy between behavioral intentions and actual environmental behavior that can be mitigated by contextual factors such as social and economic rewards (Trudel, 2018).

In a qualitative study, Mazhenova et al., (2016) found that positive feelings from participating in various environmental activities (recycling, saving water consumption, etc.) were important predictors of green behaviors, such as purchasing environmentally friendly products. Positive feedback from green product/service providers achieved through various methods will encourage customers to continue responsible behavior. Individuals who are rewarded or recognized for their environmental behavior on social media will be more committed to that behavior in the real world than those who are not (Trudel, 2018). Based on the discussion, the following hypothesis is made:

**Hypothesis 5:** Economic rewards moderate the relationship between social media desirability/behavior and real-world environmental behavior.

**Hypothesis 6:** Social rewards moderate the relationship between behavioral desires on social media and behavior in real-world environments.

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**Figure 1. Research Model**

[Diagram showing the relationships between various factors such as attitude towards environmental activities, subjective norm, perceived behavioral control, behavioral intentional towards environmental activities in social media, economic rewards, social rewards, offline environmental behavior.]
METHODS

Data collection in this study uses a survey method by distributing questionnaires online using Google Forms. Measurement using a Likert scale with a range of 1-5 (1 = strongly disagree and 5 = strongly agree). The first section contains questions related to the five constructs of the TPB model, attitude measurement consists of 4 questions. Subjective norms consist of 3 questions, and perceived behavioral control consists of 3 questions adapted from Han et al., (2010). Behavioral intention items consisted of 3 questions and real-world pro-environmental behavior consisted of 3 questions adapted and modified from Qu & Lee, (2011) to fit the objectives of the study. The real-world behavior measure consists of three questions adapted from Choi & Seo, (2017) and Lee et al., (2015). The economic reward measure consists of 3 questions adapted from Thurau et al.,(2002). The measurement of social rewards consists of 3 questions adapted from Thurau et al., (2002). The total measurements that will be made are 22 questions.

Respondents in this study were sampled purposively (purposive sampling), with sample criteria being active users of social media (Instagram). At least follow the official Instagram accounts of, McDonald's Indonesia, KFC Indonesia, and Burger King Indonesia. The age range of the sample is 17-25 years. This study is a quantitative research project with the Structural Equation Model (SEM) method, while data processing and the (SEM) method, while data processing and analysis used SmartPLS 3 (Partial Least Squares) software. PLS was adopted because it is considered capable of analyzing To be able to conduct an analysis using SEM-PLS, the sample size must be at least 5 to 10 times the total path in the research model. In the validity test, using confirmatory factor analysis, namely by looking at the Kaiser-Mseyer-Olkin measure of sampling (KMO) value, The acceptable KMO value is above the minimum limit value of 0.5, while the MSA value on the anti-image correlation must be> 0.5 (Black & Babin, 2019). The number of respondents results from the number of questionnaires multiplied by 5. The number of questionnaire statements in this study were 22 statements, so the minimum sample size taken in this study was at least 110 respondents.

RESULTS

The results of distributing questionnaires conducted online through Google Forms with a total of 22 questions and a total of 166 respondents who filled out this questionnaire with the criteria of active social media users on Instagram. At least follow the official Instagram accounts of, McDonald's Indonesia, KFC Indonesia, and BurgerKing Indonesia. Age range: 17 - 25 years. 51.5% of male respondents and 48.5% of female respondents have been obtained. Furthermore, respondents aged 17-20 years were 46.1% and respondents aged 21-25 years were 53.9%. Based on the official Instagram account of the fast food restaurant followed (follow), 78.6% of respondents followed the official Instagram account of KFC Indonesia, and 15.7% of respondents followed the official McDonald's Indonesia account and 5.7% of respondents followed the official Instagram account of Burger King Indonesia.

Data processing begins with testing the outer model, which consists of testing convergent validity and discriminant validity. The validity test is carried out by assessing convergent validity, namely measuring the validity of reflective indicators as a measure of dimensions or latent variables by looking at the outer loading and average variance extracted (AVE) values of each indicator of the dimension. Convergent validity is seen...
from the loading factor value (> 0.7) and the average variance extracted (AVE) (> 0.5). Based on smartpls 3 output, all loading factor values of the Attitude Indicator (ATT), subjective norm (SN), Perceived Behavioral control (PBC), Social Reward (SR), Behavioral Intention (BI), Offline Environmental Behavior (OEB) show results > 0.7. Economic Rewards (ER) has 1 indicator with a loading factor value of 0.167 <0.7 so it is declared invalid. Furthermore, all indicators of the ATT, SN, PBC, SR, OEB, BI and ER dimensions have an average variance extracted (AVE) value > 0.5 so they are declared valid.

Next is to test discriminant validity with the cross loadings approach, which will see the loading value of an indicator on its latent variable and the loading value of the indicator on other latent variables. Based on SmartPLS 3 output, it shows that the loading value of each indicator on its latent variable is greater than the loading value of the indicator on other latent variables, so it is concluded that it has met the discriminant validity requirements. Then, in the reliability test, all have a composite reliability (CR) value > 0.7. Furthermore, at the Cronbach’s alpha (CA) value, only ER has a Cronbach’s alpha (CA) value of 0.620 <0.7.

After analyzing the outer model (measurement model), the next step is to analyze the inner model (structural model), which begins with knowing the R square value in each equation. Based on SmartPLS 3 output, the R square value is 0.734. This value indicates that the influence of attitude, subjective norm, and perceived behavioral control variables on behavioral intention is 73.4%, while the remaining 26.6% is influenced by other variables not examined in this study. Furthermore, behavioral intention, economic reward, and social reward affect offline environmental behavior by 72.4%, while the remaining 27.6% is influenced by other variables not examined in this study.

<table>
<thead>
<tr>
<th>Tabel 1. R-Square Value Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>R Square</td>
</tr>
<tr>
<td>Behavioral Intentional</td>
</tr>
<tr>
<td>Offline Environmental Behavior</td>
</tr>
</tbody>
</table>

Then in hypothesis testing (bootstraping) will see the path coefficient value, namely the original sample, T statistics, and P value where the research results are shown in the figure below.

**Figure 2. Path Diagram - P Value**
Based on the path diagram - p value in Figure 2 above, it can be concluded that the hypothesis testing of the research model is as follows:

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Original Sample</th>
<th>T Statistics (&gt; 1.96)</th>
<th>P Value (&lt; 0.05)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Attitude has a positive influence on Behavioral intentional</td>
<td>0,114</td>
<td>1,203</td>
<td>0,229</td>
</tr>
<tr>
<td>H2</td>
<td>Subjective Norm has a positive effect on Behavioral intention</td>
<td>0,397</td>
<td>5,373</td>
<td>0,000</td>
</tr>
<tr>
<td>H3</td>
<td>Perceived Behavior Control has a positive influence on Behavioral Intentional</td>
<td>0,412</td>
<td>5,015</td>
<td>0,000</td>
</tr>
<tr>
<td>H4</td>
<td>Behavioral Intentional has a positive influence on Offline Environmental Behavior</td>
<td>0,148</td>
<td>1,756</td>
<td>0,080</td>
</tr>
<tr>
<td>H5</td>
<td>Economic Reward moderates the relationship between Behavioral Intentional and Offline Environmental Behavior.</td>
<td>0,228</td>
<td>2,775</td>
<td>0,006</td>
</tr>
<tr>
<td>H6</td>
<td>Social Reward moderates the relationship between Behavioral Intentional and Offline Environmental Behavior.</td>
<td>0,558</td>
<td>6,371</td>
<td>0,000</td>
</tr>
</tbody>
</table>

Source: SEM-SmartPLS3 Processed Data (2023).

Based on Table 2, the hypothesis test above shows the results that all original sample values are positive, the t-statistics value is above 1.96, but the p-value in two hypotheses is greater than 0.05, so this shows that the data in this study do not support the two hypotheses.

**DISCUSSION**

This study aims to explore the influence of the relationship between the TPB (Theory of planned behavior) model on consumers' behavioral intentions in the context of social media and also investigate the moderating effects of economic and social rewards. First, this study shows that attitude has a positive but non-significant effect on consumer behavior intention on pro-environmental activities published on social media, which means that attitude does not have a strong influence on consumer behavior intention to participate in pro-environmental activities published on a restaurant's social media. These results show differences with the results of previous research, which states that attitudes have the strongest influence on determining behavioral intentions, followed by subjective norms, and then perceived behavioral control (Shin et al., 2018).

Second, this study proves that subjective norms have a positive and significant effect on behavioral intentions. The subjective norm in question is the social pressure a person receives if he does or does not perform a behavior. So, the greater the subjective norm that a person receives, the stronger the behavioral intention will be. Thus, a person will become a consumer who has behavioral intention to participate in pro-environmental activities published on a restaurant's social media. These results also prove the truth of previous research,
which says that all TPB components can significantly influence behavioral intention, but subjective norms are found to be the most influential factor, followed by perceived behavioral control (Teng et al., 2015).

Third, this study proves that behavioral control has a positive and significant effect on behavioral intentions. This arises because individuals are often influenced by their level of belief that they are able and have the opportunity to carry out certain behaviors. So the stronger and better one's behavioral control, the stronger the behavioral intention to participate in pro-environmental activities published on a restaurant's social media will be. These results are also in line with the results of previous studies, which say that among the components, perceived behavioral control is the most significant variable in determining the desire to subscribe. And the formation of perceived behavioral control is influenced by control beliefs (Moon, 2021).

Fourth, this study proves that consumer behavioral intentions toward pro-environmental activities on social media have a positive but non-significant effect on pro-environmental behavior in the real world. This means that the participation of a consumer in pro-environmental activities published on restaurant social media cannot be certain to change their lifestyle in real life. This can happen because consumers participate in pro-environmental activities published on social media only because they find it fun or because they expect certain rewards. Fifth, this study proves that economic rewards can moderate the relationship between behavioral intentions and pro-environmental behavior in the real world. Economic rewards such as discounts or limited offers tend to increase trust and commitment (Kenhove et al., 2003) to build behavioral intentions to engage in an activity and can change a person's lifestyle (Peterson, 1995). The results of this study are in line with previous research which says that economic rewards are a stronger driver than relational marketing to maintain customer behavioral intentions (Noble et al., 2014).

Sixth, this study proves that social rewards have a positive and significant effect and can moderate the relationship between behavioral intentions and pro-environmental behavior in the real world. This means that social rewards such as special offers / special treatment from service providers will lead to consumer behavioral intentions and can change their real-world behavior because they feel happy to be appreciated. The results of this study are in line with previous research, which says that social rewards are known to be more effective in increasing the sense of belonging and emotional attachment to the organization by strengthening intrinsic reasons for emotional attachment to the organization (Rosenbaum et al., 2005).

CONCLUSION

The overall hypothesis built in this study has been proven that there is a relationship between the variables of attitude, subjective norm, perceived behavior control, behavioral intentional, economic reward, and social reward with offline environmental behavior. Attitude, subjective norm, and perceived behavior control which are part of the TPB model, have a positive influence on consumer behavioral intentional in pro-environmental activities published on restaurant social media, although the attitude variable is proven to have no significant effect. However, behavioral intentional does not have a significant effect on offline environmental behavior. Consumer participation in pro-environmental activities on restaurant social media cannot be sure to change
their habits in the real world. This is because it is not uncommon for consumers to only participate in pro-environmental activities because they feel it is fun or want to get a certain award. Awards such as economic rewards and social rewards seem to be more considered by the restaurant in order to increase behavioral intentional which has a significant influence on offline environmental behavior. because economic and social rewards that are felt or obtained by consumers can increase their offline environmental behavior. This is because consumers feel more valued and happy when they get special behavior from the restaurant.

This study still has several limitations that need to be improved in the future. First, this study only focuses on women who belong to Gen Z, therefore, in the future, it can use generation as a moderating variable so that the research results will be more complete and broad. Second, the social media platform used here only focuses on Instagram, so further research can analyze and compare social media platforms such as: Tik-Tok and Facebook. Especially for research in industries that require a unit of analysis of social media users with a young age (<30 years), Tik-Tok is also a newer platform than Instagram and Facebook, which is the second most used social media platform after Instagram. Third, the demographics of respondents in this study are still limited, so further research can collect more complete demographic data on respondents, such as: age, domicile, occupation, education, and others.

This research provides managerial implications for companies engaged in food and beverage, especially fast food restaurants, that want to contribute to making good changes in the world through the creation of certain activities or regulations published through social media. The restaurant must be able to foster consumer behavioral intentions to follow activities and regulations published on social media in accordance with consumer preferences, which can be done in various ways.

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