EXTREMAL PROPERTIES OF CERTAIN CLASS OF TILTED UNIVALENT ANALYTIC FUNCTIONS

MONTHLY EXPENDITURE OF PTPTN LOAN RECEIVER AMONG SHAH ALAM UNIVERSITY STUDENTS

LABOUR FORCE PARTICIPATION RATE AND UNEMPLOYMENT RATE: A MALAYSIAN PERSPECTIVE

CLASSIFICATION OF AIR QUALITY IN THE KLANG VALLEY USING K-MEANS CLUSTERING

FACTORS AFFECTING STUDENTS' ACADEMIC PERFORMANCE THROUGH ONLINE DISTANCE LEARNING

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THE INFLUENCE FACTORS OF SOCIAL MEDIA USERS ON INTENTION TO ADOPT A ZERO WASTE LIFESTYLE IN PETALING, SELANGOR.

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Abstract

Zero-waste should be practiced in managing waste disposal or production, preventing pollution, conserving natural resources, improving quality of life and well-being. Encouraging a sustainable practice in social media is one of the solutions to raise awareness of a zero-waste lifestyle. In Malaysia, Selangor has been identified as the highest waste-producing state, and within the state, the highest populated district is the Petaling district. As a result, the Petaling district is where this study is being explored. In addition, this study emphasizes gender, age group, peers' impressions of zero-waste posts on social media, and the ability to distribute zero-waste information on social media. This study aims to investigate the factors that influence social media users' intentions to adopt a zero-waste lifestyle in Petaling. In this study, 210 observations were chosen as samples. The method that is being used in this study is logistic regression analysis. Overall, based on the results, it appears that peers' impressions of zero-waste posts on social media serve as a significant influencing element.

Keywords: Intention, Lifestyle, Peer's Impression, Social Media, Zero-waste

1.   Introduction

Minimizing waste to zero may seem impossible, especially in light of today's society, which is easily affected by a wide range of consumer goods and service offerings. The worldwide volume of solid waste is estimated to be over billions of tonnes per year (Song et.al, 2015). The term "zero-waste" can be defined as a waste prevention movement that encourages individuals to reuse all items (Jusoh et al., 2020). In general, zero-waste should be practiced managing waste disposal or production, prevent pollution, conserve natural resources, and improve quality of life and well-being (Zulkilfi et al., 2015). Zero Waste Malaysia reveal that Malaysia generates over 38 thousand tonnes of trash every day. The country is unable to cope with the growing amount of solid waste produced each year with the limited number of landfills. It disrupts the environment's ecosystem, which has a detrimental influence on human life, flora and fauna, and animals.

One strategy that can help Malaysia's waste problem is the adoption of a zero-waste lifestyle. In truth, it is possible to produce new goods from a variety of waste materials without endangering natural resources or raising production costs. There are several approaches to promote sustainable practices, including through social media advertising. According to Boran (2018), social media is an important tool for fostering social change. Additionally, Petaling's population is growing every day. As a result of there being more customers, this raises the overall amount of garbage. The pattern of disposal household solid waste in Petaling is the

sole topic of this study. Therefore, it is crucial to research how social media affects the adoption of a zero-waste lifestyle.

Zero-waste lifestyle adoption targets to reduce waste, increase recycling, avoid over consumption, and prefer reusable products. However, in order to achieve a zero-waste lifestyle, spreading awareness is crucial, especially on social media. Nowadays, social media scrolling is a habit in people's daily lives. According to survey report by Department of Statistics Malaysia in 2022, it stated in year 2021 the most popular online activity for 99% of Malaysians was using social media. Therefore, social media can increase public awareness of zero-waste initiatives. In this study, some factors that influence social media users on intention to adopt a zero-waste lifestyle were discussed in terms of gender, age group, and peers' impressions on zero-waste post on social media, and ability to distribute zero-waste information on social media.

Frequency is the rate at which something occurs over a specific time while preference means greater likin for one alternative over another alternative. According to a study by Rapada et.al (2021) concerning the influence of social media on consumer behaviour towards plastic pollution, 76% of the 213 respondents that took part in the study used social media daily. The preference of social media is caused by the new opportunities provided by social media itself to connect people with little relation but similar interest (Young, 2021). Morgan and Gartshore (2021) stated that Instagram is the most preferred platform for individuals to increase health awareness compared to Facebook and YouTube. The related posting and information about the zero-waste lifestyle could be reached by users based on their frequency and preference of social media if and only if there are such postings about it.

Attitude was defined as a settled act or opinion about something (Pustaka, 2017). A person's attitude can be classified as either positive or negative. This is because, in order to form behaviour, and change to occur, each individual must have a different attitude or perception of certain knowledge. Awang et.al (2021) state that attitudes have a substantial role in pro-environmental behaviour. Nowadays, social media has a big impact on millennial perceptions. Therefore, social media has played an essential role in improving millennial attitudes toward a zero-waste lifestyle. Changing a person's attitude about zero-waste information through social media enhance their desire to adopt a zero-waste lifestyle (Young, 2021).

Gender is a visible difference between males and females viewed from their values and behaviour. One of the most important considerations in adopting a zero-waste lifestyle is gender. It has contributed significantly to raising environmental awareness. According to survey report by Department of Statistics Malaysia in 2022, individuals' use of information and communications technology (ICT) in 2021 show that males use the internet 97.2% more than females (96.3%). In addition, social media may provide basic knowledge on gender issues and specific environmental protection measures, and it has been discovered that females were more concerned about environmental protection than males (Dhenge et al., 2022). Most of the research shows that females are more likely to adopt a zero-waste lifestyle. Nevertheless, both males and females were highly interested in adopting zero-waste to conserve resources and minimize pollution (Bagagiolo et al., 2022).

There are four categories of human age; child, teenager, adult, and senior adult (Nithyasri and Kulanthaivel, 2012). A child can be classified between the day of birth until 12 years old, a teenager between the ages of 13 until 18 years old, an adult between the ages of 19 until 59 years old, and senior adult between the ages of 60 years old and above. As reported by Department of Statistics Malaysia in 2022, all age groups exceed 90% of using the internet except for senior adults. This shows how prevalent people are on social media in the current times. Social media has played an important part in influencing the attitude of young generations to become more sustainable. Attitudes toward adopting a zero-waste lifestyle must be taught at a young age so that their minds will become more responsive to developing a

positive environmental attitude (Dhenge et al., 2022). Thus, they may be educated themselves to adopt a zero-waste lifestyle. Besides, people under 50 years were 75.7% more interested in adopting zero-waste to conserve resources and minimize pollution than people that more than 50 years with only 24.3% (Bagagiolo et al., 2022).

The next aspect is the influence on individual's behaviors towards zero-waste adoption on social media that can affect the individual's peers desire them to act on social media. For example, peers may ask individuals to like, share, or ta them on zero-waste social media postings (Young, 2021). There was a positive significant influence on the peers' impressions on social media towards zero-waste lifestyle regarding recycling (Pratiwi et al., 2021). Furthermore, the perception of behaviour that peers need to act out or participate in environmental practice had a positive impact towards the influence on sustainable waste management (Muniandy et al., 2021). Bagagiolo et al. (2022) agreed that individuals that obtained a recommendation from their peers on social media were significantly impacted by a high desire to adopt a zero-waste lifestyle. According to Young (2021), the ability to distribute zero-waste information on social media is significantly correlated to adopt a zero-waste lifestyle. The ones who have the ability to distribute zero-waste information on social media are likely to apply zero-waste lifestyle in their daily lives, such as eliminating single-use items, recycling, repurposing household items, composting, connection with the zero-waste community and educating others about the lifestyle. The information that is shared by friends or acquaintances on social media is considered as valuable and trustworthy advice that can influence others behaviour to follow the lifestyle (Lahath et al., 2021).

2. Material and Methods

2.1. Description of Data

This study focuses on the gender, age group, peers' impressions on zero-waste post on social media, ability to distribute zero-waste information on social media, and the intentions to adopt a zero-waste lifestyle in the Petaling district as to finding the factors that influence social media users' intentions to adopt a zero-waste lifestyle in the Petaling district. A cross-sectional study design is used in this study; thus the conclusion of a cross-sectional study is only valid while the study is being conducted. The independent variables for this study are gender, age group, peers' impressions on zero-waste post on social media, and ability to distribute zero-waste information on social media while the dependent variable is intention to adopt a zero-waste lifestyle.

The population of this study was the citizens of Petaling district that were aged 18 and above. In the 2020 national census by Jabatan Perangkaan Malaysia in reported by year 2022, it was concluded that the Petaling district had the most citizens in Selangor, hence it is the best district to meet this study's objectives. The sample size for this study is 200 and it is decided by referring to the research done by Sanusi et al. (2022), 200 are used as a sample where its population is all Petaling citizens who are age between 18 and 65. The researcher manage to get 210 Petaling residents as samples of the study and it's fulfilled the minimum sample size required that being calculated. A convenience sampling method was sampling method used in this study to select the respondents.

Primary data was used in obtaining the information to accomplish this study. This study was conducted by distributing the questionnaire via Google Forms to the respondents. This study adopted the questionnaire by Young (2021) to get better understanding on how social media strategies influence people to adopt zero-waste behaviours. Each of the survey questions was established to fulfil the specific research objectives. The Cronbach's Alpha is used in determining the reliability of perceptions of peers' impression on zero-waste post on social media and ability to distribute zero-waste information on social media. The value may

range anywhere from 0 to 1, however, only a value that is larger or equal to 0.7 is considered to be reliable (Taber, 2018). The summated score is used in this study. The summated score is applied for independent variables in this research which are peer's impressions on zero-waste post on social media and ability to distribute zero-waste information on social media.

2.2. *Theoretical Framework*

Figure 1 presents the theoretical framework in this research. The independent variables are gender, age group, peer's impressions on zero-waste post on social media, and ability to distribute zero-waste information on social media. Moreover, the dependent variable is the intention to adopt a zero-waste lifestyle.
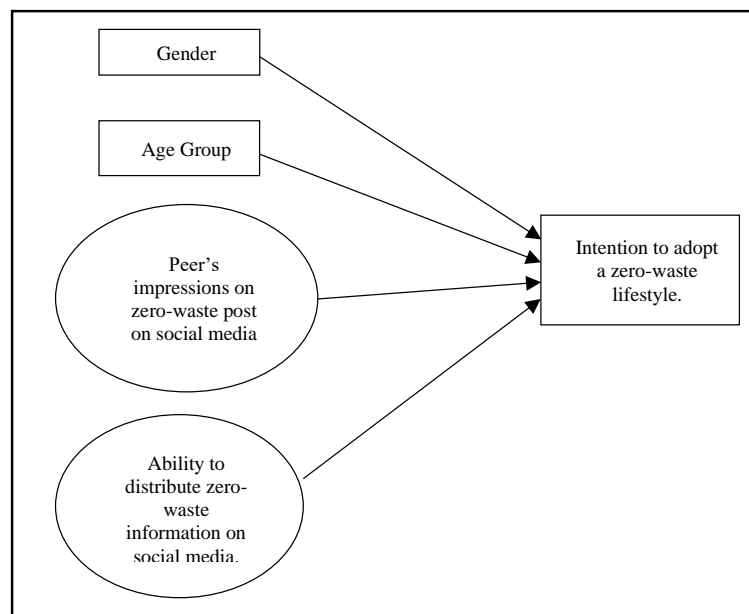

Figure 1: Theoretical Framework (Young, 2021)

2.3. *Logistic Regression Model*

It is well known that predictive analysis included logistic regression. Regression modelling is appropriate for describing data and elucidating the link between a single binary dependent variable and a number of independent variables (Hidayat, 2017). In this study, logistics regression is carried out using the forward selection technique. First off, the model won't contain any independent variable. The candidate to enter the equation is the predictor with minimum p-value. The independent variable is included in the model of the p-value is less than 0.05. The programme terminates if none of the independent variables is deemed significant enough to be included in the logistic regression equation, which provides the theoretical foundation for this study.

The model evaluation process includes a number of tests that are used to gauge the model's effectiveness and goodness-of-fit (Atmathew, 2015). The significance level for each test was set at 5%. The Omnibus test for model coefficient is the first test in the model evaluation process. The information from the study's explanatory variables gives a stronger prediction

of the predicted variable if the p-value for the Omnibus test is smaller than alpha value (0.05) and vice versa. The Hosmer-Lemeshow test is the second test used to gauge how well logistics regression models fit data. The model has a good fit if the p-value of Hosmer-Lemeshow test is greater than alpha value (0.05) (Glen, 2020). In addition, predictive efficiency model used as classification table in deciding which model is better than the other.

The Wald statistics test is to determine whether one or more independent variables in logistics regression are significant. The null hypothesis is rejected and the independent factors are significant in determining the intentions to adopt a zero-waste lifestyle if the Wald statistics test's p-value is less than 0.05. If the odd ratio (OR) is equal 1, it means that the exposure had no effect on the likelihood that the social media user would decide to lead a zero-waste lifestyle. If the OR is more than 1, it means that the exposure is more likely to increase a social media user's intention to live a zero-waste lifestyle, whereas an OR of less than 1 means that the exposure was less likely to increase intention. Last but not least, Cox and Snell R Square and Nagelkerke R Square show how much variance in the predicted variable is explained by the model, with a range of 0 to 1.

3. Results and Discussion

3.1. Descriptive Analysis

There were 210 residents of Petaling who responded, as displayed in Table 1. Male respondents make up 96(45.7%) and female respondents make up 114 (54.3%). According to the proportion, there were significantly more female respondents than male respondents. The age group of 18 to 29 years old has the highest percentage of respondents (in terms of age grouping) with 121 respondents (57.6% of the total). Following this are the respondents between the ages of 30 and 49, who made up 54 of the respondents (25.7%) and the minority of the respondents, who made up 35 of the respondents (16.7%), are over the age of 50. Since the questionnaire were filled out online, the majority of the respondents are between the ages of 18 and 29.

Next, the majority of the respondents are holding a Degree as their highest level of education with 132 respondents (62.9%), followed by Diploma holders with 42 respondents (20.0%). UPSR/ PT3/ SPM are ranked as the top three highest levels of education in this study with the frequency of 17 respondents (8.1%). About 13 respondents (6.2%) are coming from Master holders and the minority of the respondents are coming from other certificates and PhD holders with four and two respondents for each variable, respectively. On the other hand, Shah Alam residents comprise the majority of the respondents, with 134 respondents (63.8%), followed by Petaling Jaya residents with 60 respondents (28.6%). The minority of the respondents are coming from Subang Jaya with a frequency of 16 respondents (7.6%).

Table 1: Demographic Profile of Respondents

Variable	Respondents, n	Percentage, %
Gender		
Male	96	45.7
Female	114	54.3
Age		
18-29	121	57.6
30-49	54	25.7
50 and above	35	16.7
Highest Level of Education		
UPSR/ PT3/ SPM	17	8.1
Diploma	42	20.0
Degree	132	62.9
Master	13	6.2
PhD	2	1.0
Others	4	1.9
City of Residence		
Petaling Jaya	60	28.6
Shah Alam	134	63.8
Subang Jaya	16	7.6

3.2. *Reliability Test*

The study's reliability test is displayed in Table 2. It demonstrates that every variable has a Cronbach's Alpha coefficient greater than or equal 0.7, indicating a high level of dependability. Thus, it can be said that all the data in this study are reliable and consistent.

Table 2: Cronbach's Alpha Coefficient

Variable	No of Items	Cronbach's Alpha
Peers' impression on zero-waste post on social media	4	0.923
Ability to distribute zero-waste information on social media	4	0.865

3.3. *Logistic Regression Analysis Results*

The results of logistic regression analysis are displayed in Table 3. The approach entered demonstrated that none of the independent variables, including gender, age group, peers' impression on zero-waste post on social media, and ability to distribute zero-waste information on social media are statistically significant. This is because the significant value for Wald test is greater than 0.05. The intention to adopt a zero-waste lifestyle in Petaling is therefore unaffected by the factors of gender, age group, peers' impression on zero-waste post on social media, and ability to distribute zero-waste information on social media. Because none of the variables are significant, the odds ratio of enter technique will not determine anything.

The forward approach of logistic regression's model reveals that only peers' impression on zero-waste post on social media are statistically relevant in terms of the intention to adopt a zero-waste lifestyle. By contrasting the model, Omnibus test is used to assess the performance of the model. The results of the Omnibus test of enter and forward approach are displayed in

Table 3. Both approaches produce results of 0.019 and 0.006 respectively, which both demonstrate a significant model with a significance value less than 005. The forward approach is also more important that the enter method. As a result, the forward technique will provide a superior model forecast.

The result of the Hosmer-Lemeshow test comparing enter and forward procedure are displayed in Table 3. Enter method's significant value is 0.116, which is greater than 0.05. This indicate that the model and the data are well matched. Additionally, because the significant value for the forward method is less than 0.001, the model does not well match the data.

The results of enter and forward method's Cox and Snell R Square and Nagelkerke R Square are displayed in Table 3. Cox and Snell R Square values for enter and forward procedures are 0.062 and 0.035, respectively. Next, enter and forward techniques' Nagelkerke R Square values are 0.448 and 0.252 respectively. According to the results of the Nagelkerke R Square of the enter method, the independent variables of gender, age group, peers' impression on zero-waste post on social media, and ability to distribute zero-waste information on social media explained 44.8% of the variance related to the intention to adopt a zero-waste lifestyle. In addition, using Nagelkerke R Square of forward technique, it can be concluded that around 25.2% of the variation associated with the intention to adopt a zero-waste lifestyle was explained by peers' impression on zero-waste post on social media.

Table 3 demonstrates that the Wald test's significant value is less than the alpha value, which is 0.05. It can be concluded that peers' impression on zero-waste post on social media is influenced by the intentions to adopt a zero-waste lifestyle among social media users in Petaling. Furthermore, the odds of having intentions to adopt a zero-waste lifestyle are multiplied by 1.562. With one unit increase in peers' impression on zero-waste post on social media, the probability of the intention to adopt zero-waste lifestyles increases by 44.6%.

Table 3: Logistic Regression Analysis Results

| Variable | Method | | | | | |
| | Enter | | | Forward | | |
	B	Sig.	Exp (B)	B	Sig.	Exp(B)
Gender	17.589	0.996	43541899.70			
Age group						
18-29	-0.050	0.972	0.952			
30-49	16.892	0.997	21673543.49			
Peers' impression on zero-waste post on social media	0.360	0.195	1.434	0.446	0.011	1.562
Ability to distribute zero-waste information on social media	0.022	0.941	1.022			
Constant	-1.998	0.444	0.136	-1.549	0.428	0.213
Goodness of Fit Test	**Enter**			**Forward**		
	χ^2		Sig.	χ^2		Sig.
Omnibus Test	13.058		0.019	7.5000		0.006
Hosmer and Lemeshow	12.875		0.116	27.157		<0.001
	Enter			**Forward**		
Cox and Snell R square	0.062			0.035		
Nagelkerke R Square	0.448			0.252		

4. Conclusion

The primary goal of this study is to discover the elements that affect Petaling social media users' intention to live a zero-waste lifestyle. To do this, logistics regression analysis was performed. The outcome of this aims has demonstrated that since p-value of 0.011, peers' impression on zero-waste post on social media are significant This finding was corroborated by the earlier research by Young (2021), who found that one the key factors influencing intentions to adopt zero-waste lifestyle is peers' impression of zero-waste Instagram posts.

Acknowledgment

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