

**CONSUMERS' EXPOSURE TO FACEBOOK PAGES  
REGARDING ENVIRONMENT, ENVIRONMENTAL  
AWARENESS, AND BEHAVIORAL TENDENCY IN  
THAILAND**



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การเปิดรับสื่อของผู้บริโภคต่อเฟชบุ๊กเพจที่เกี่ยวกับสิ่งแวดล้อม การตระหนักรู้ต่อสิ่งแวดล้อมและ  
แนวโน้มพฤติกรรมในประเทศไทย



สารนิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาโทศึกษาศาสตร์มหาบัณฑิต  
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THAILAND  
By                                      Miss Porntip Jakmongkolchai  
Field of Study                      Strategic Communication Management  
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Accepted by the FACULTY OF COMMUNICATION ARTS,  
Chulalongkorn University in Partial Fulfillment of the Requirement for the Master of  
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พรทิพย์ จักรมงคลชัย : การเปิดรับสื่อของผู้บริโภคต่อเฟซบุ๊กเพจที่เกี่ยวกับสิ่งแวดล้อม การ  
ตระหนักรู้ต่อสิ่งแวดล้อมและแนวโน้มพฤติกรรมในประเทศไทย. ( CONSUMERS'  
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ENVIRONMENT, ENVIRONMENTAL AWARENESS, AND  
BEHAVIORAL TENDENCY IN THAILAND) อ.ที่ปรึกษาหลัก : รศ.  
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การวิจัยนี้มีวัตถุประสงค์เพื่อวิเคราะห์การเปิดรับสื่อของผู้บริโภคต่อเฟซบุ๊กเพจที่เกี่ยวกับ  
สิ่งแวดล้อม การตระหนักรู้ต่อสิ่งแวดล้อม และแนวโน้มพฤติกรรมในประเทศไทย และศึกษาความสัมพันธ์  
ระหว่างการเปิดรับสื่อของผู้บริโภคต่อเฟซบุ๊กเพจเกี่ยวกับสิ่งแวดล้อมกับการตระหนักรู้ต่อสิ่งแวดล้อม รวมถึง  
ความสัมพันธ์ระหว่างการตระหนักรู้ต่อสิ่งแวดล้อมและแนวโน้มพฤติกรรมของผู้บริโภคในประเทศไทย ซึ่ง  
การวิจัยเชิงปริมาณในครั้งนี้ดำเนินการผ่านการจัดทำแบบสอบถามออนไลน์ โดยการเก็บข้อมูลรวม 200 ชุด  
จากกลุ่มตัวอย่างของคนไทยและคนที่มีที่อยู่อาศัยในประเทศไทยอายุระหว่าง 18 ถึง 64 ปี

ผลของการวิจัยนำเสนอให้เห็นว่า จากเฟซบุ๊กเพจ Environman และ ลูกชาเลี้ยงกับขยะที่  
หายไป และเพจอื่น ๆ ที่เสนอเกี่ยวกับสิ่งแวดล้อม กลุ่มตัวอย่างได้เห็นโพสต์ประเภทข้อความและ โพสต์  
ประเภทภาพมากที่สุด ( $M = 2.47$ ) นอกจากนี้กลุ่มตัวอย่างมีความเห็นร่วมกันว่ามีความกังวลเกี่ยวกับ  
ปัญหามลพิษทางน้ำในประเทศไทยมากที่สุด ( $M = 4.79$ ) ใกล้เคียงมากกับมีความกังวลเกี่ยวกับการตัดไม้  
ทำลายป่าในประเทศไทย ( $M = 4.78$ ) โดยแนวโน้มพฤติกรรมของผู้บริโภคนั้นกลุ่มตัวอย่างมักจะถือ  
ถุงช้อปปิ้งติดตัวไปด้วยเวลาไปซื้อของ ( $M = 4.50$ ) และการวิจัยนี้ได้ยืนยันความสัมพันธ์ระหว่างการ  
ตระหนักรู้ต่อสิ่งแวดล้อมและแนวโน้มพฤติกรรมของผู้บริโภคในประเทศไทย ( $r = 0.346$ ) แต่ไม่ได้  
ยืนยันความสัมพันธ์ระหว่างการเปิดรับสื่อของผู้บริโภคต่อเฟซบุ๊กเพจเกี่ยวกับสิ่งแวดล้อมกับการตระหนักรู้ต่อ  
สิ่งแวดล้อม ( $r = 0.067$ ) เพราะค่าระดับนัยสำคัญที่คำนวณได้เท่ากับ 0.349 ซึ่งมากกว่าค่าระดับ  
นัยสำคัญที่ยอมรับได้คือ 0.01 หมายความว่า การเปิดรับสื่อของผู้บริโภคต่อเฟซบุ๊กเพจเกี่ยวกับสิ่งแวดล้อม  
และการตระหนักรู้ต่อสิ่งแวดล้อมมีความสัมพันธ์ในระดับต่ำอย่างไม่มีความสำคัญทางสถิติ

สาขาวิชา	การจัดการการสื่อสารเชิงกลยุทธ์	ลายมือชื่อนิสิต
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KEYWORD Facebook page, Environment, Awareness, Behavioral tendency,

D: Survey

Porntip Jakmongkolchai : CONSUMERS' EXPOSURE TO FACEBOOK PAGES REGARDING ENVIRONMENT, ENVIRONMENTAL AWARENESS, AND BEHAVIORAL TENDENCY IN THAILAND.

Advisor: Assoc. Prof. Dr. WORAWAN ONGKRUTRAKSA, D.Arts

This research aims to analyze the exposure to Facebook pages regarding environment, consumers' environmental awareness, and their behavioral tendency. The research explores the relationship between the exposure to Facebook pages and consumers' environmental awareness, as well as relationship between consumers' environmental awareness and their behavioral tendency. This quantitative research was conducted through an online survey which collected data from 200 respondents, aged between 18 to 64 years old who currently reside in Thailand.

The results from the study reveals that respondents frequently see both text post and photo post equally ( $M = 2.47$ ) from Environman or 3WheelsUncle or other Facebook pages regarding environment. Moreover, the respondents most agree that they are concerned about water pollution in Thailand ( $M = 4.79$ ) and deforestation in Thailand ( $M = 4.78$ ). In terms of behavioral tendency, the respondents most likely bring their own shopping bag when going shopping ( $M = 4.50$ ). The results of this research also confirm that there is a positive correlation ( $r = 0.346$ ) between consumers' environmental awareness and their behavioral tendency. However, the results do not confirm the relationship between consumers' exposure to Facebook pages regarding environment and environmental awareness ( $r = 0.067$ ), because the calculated significance level was 0.349, which was greater than the acceptable significance level of 0.01 which means that the relationship between consumers' exposure to the Facebook pages regarding environment and environmental awareness are statistically low that it is not insignificant.

Field of Study:	Strategic Communication Management	Student's Signature
Academic Year:	2020	.....
		Advisor's Signature
		.....

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# TABLE OF CONTENTS

	<b>Page</b>
ABSTRACT (THAI) .....	iii
ABSTRACT (ENGLISH).....	iv
ACKNOWLEDGEMENTS .....	v
TABLE OF CONTENTS.....	vi
LIST OF TABLES .....	viii
LIST OF FIGURES .....	xi
CHAPTER 1 INTRODUCTION .....	1
SIGNIFICANCE OF THE STUDY .....	1
1.1 Thailand’s social media usage.....	1
1.2 Thailand’s environmental issues’ awareness and behavioral tendency. ....	2
1.3 Research Objectives .....	3
1.4 Research Questions .....	3
1.5 Scope of the Study.....	4
1.6 Operational Definitions .....	4
1.7 Benefits of the study.....	7
CHAPTER 2 LITERATURE REVIEW .....	8
2.1 Exposure to Facebook Pages .....	8
2.1.1 Media Exposure.....	8
2.1.2 Facebook Pages .....	11
2.1.3 Environman Facebook Page .....	13
2.1.4 3WheelsUncle Facebook Page .....	18
2.2 Environmental Awareness.....	21
2.2.1 Green Marketing.....	24
2.2.2 Green consumers .....	25
2.3 Related Research .....	28

2.4 Research hypotheses.....	29
CHAPTER 3 METHODOLOGY .....	31
3.1 Research Methodology .....	31
3.2 Population and Sample .....	32
3.3 Sampling Techniques .....	32
3.4 Research Instruments .....	32
3.5 Measurement of Variables.....	34
3.5.1 Checks for Reliability and Validity.....	35
3.6 Procedures of Analyzing Data and Data Presentation.....	35
3.7 Data Analysis .....	36
CHAPTER 4 FINDINGS.....	38
4.1 Findings from Descriptive Analysis.....	38
Part 1: Demographics .....	38
Part 2: Consumers' exposure to Facebook Page: Environman, 3WheelsUncle, and other pages regarding environmental issues.	41
Part 3: Consumers' Environmental Awareness .....	42
Part 4: Consumers' Behavioral Tendency.....	43
4.2 Findings from Inferential Analysis - Hypothesis Testing .....	45
CHAPTER 5 SUMMARY AND DISCUSSION .....	47
5.1 Summary .....	47
5.2 Discussion .....	50
5.3 Practical Implications .....	53
5.4 Limitations of the Study .....	55
5.5 Directions for Future Research.....	55
REFERENCES .....	57
APPENDIX.....	66
VITA.....	78



## LIST OF TABLES

Table 3.1 Likert Scale Interpretation .....	36
Table 3.2 Pearson Product Moment Correlation.....	37
Table 4.1 Age Range of the Respondents .....	38
Table 4.2 Gender of the Respondents .....	39
Table 4.3 Highest Education Level of the Respondents .....	39
Table 4.4 Occupation of the Respondents .....	40
Table 4.5 Samples' Frequency of Exposure to environmental issues through Facebook posts.....	41
Table 4.6 Samples' Environmental Awareness .....	42
Table 4.7 Samples' Behavioral Tendency .....	44
Table 4.8 Pearson's Correlation between Exposure to Facebook pages' regarding environmental issues and environmental awareness.....	45
Table 4.9 Pearson's Correlation between Environmental awareness and Behavioral Tendency.....	46

## LIST OF FIGURES

Figure 1.1 Social media stats Thailand from Jan 2020 - Jan 2021 .....	2
Figure 2.1 Environman Facebook Page .....	13
Figure 2.2 Photo and text post on Environman Facebook Page .....	15
Figure 2.3 Multiple photos Post on Environman Facebook Page.....	16
Figure 2.4 Video Post on Environman Facebook Page .....	17
Figure 2.5 Items selling on Environman Facebook Page .....	17
Figure 2.6 3WheelsUncle Facebook Page .....	18
Figure 2.7 Photo and Text post on 3WheelsUncle Facebook Page .....	19
Figure 2.8 Multiple Photos Post on 3WheelsUncle Facebook Page.....	20
Figure 2.9 Video Post on 3WheelsUncle Facebook Page.....	21
Figure 2.10 Green Certification Schemes in Thailand.....	27
Figure 2.11 Conceptual Framework .....	30

# CHAPTER 1

## INTRODUCTION

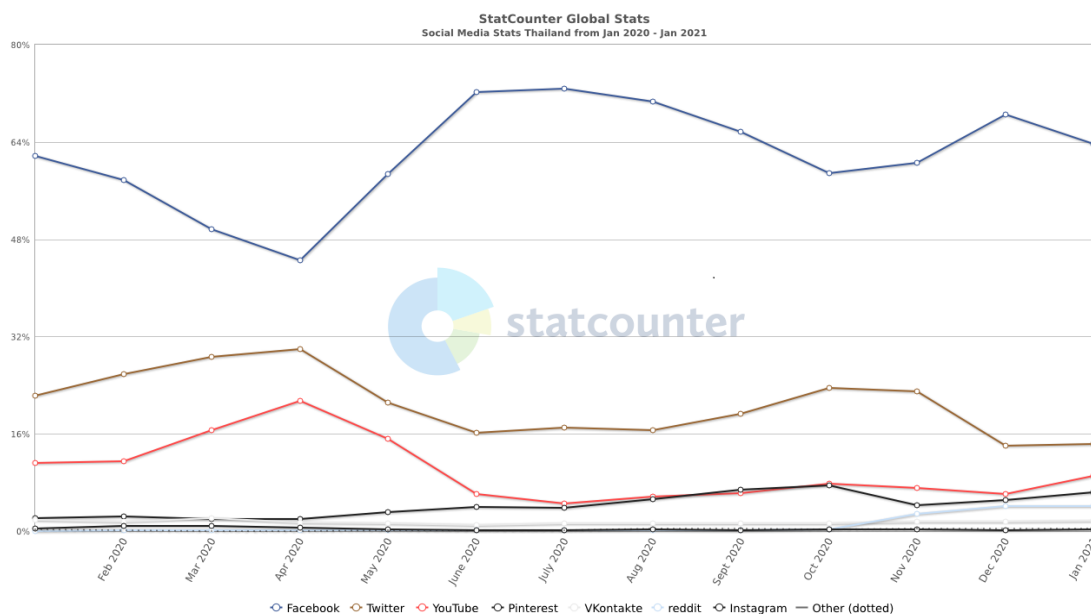
### SIGNIFICANCE OF THE STUDY

#### 1.1 Thailand's social media usage

The social media platform Facebook ranked first among the leading social media networks in Thailand. With about 54.57 million users, Thailand can even be counted among the leading social media countries in Southeast Asia (Statista, 2020). According to Worldmeter (2021), the current population of Thailand is approximately 69.912 million as of February 22, 2021. Based on Datareportal's Digital 2021: Thailand's report, as of January 2021, there were 55 million social media users which was equivalent to 78.7% of total population in January 2021. Daily time spent using social media is 2H48M out of 8H44M of daily time spent using the internet which is equivalent to 30% of overall time spent using the internet. Interestingly, 100% of internet users aged 16 to 64 visited or used a social network or a messaging service while 95.1% actively engaged or contributed to social media in the past month. (Datareportal, 2021)

This study was conducted solely on Facebook users since Facebook ranked first among the leading social networks in Thailand (Statista, 2020). It accounted for 63.68% of users from overall social media platforms in Thailand (Statcounter, 2021).

Figure 1.1 Social media stats Thailand from Jan 2020 - Jan 2021



Source: Statcounter (2021). Social Media Stats Thailand Jan 2020 - Jan2021.

Retrieved February 2021 from <https://gs.statcounter.com/social-media-stats/all/thailand>

## 1.2 Thailand's environmental issues' awareness and behavioral tendency.

According to Google Year in Search Thailand Insights for Brands Report 2020, Thai consumers are turning their attention to the implications of climate change, environmental preservation and sustainability. Initiatives from both the public and private sector have encouraged them to become aware of the impact of their consumption and to look for eco-friendly products and services. Interest in eco-friendly products like fabric bags and in reducing the number of plastic bags as well as energy conservation has increased significantly. Consumers are looking to reduce their carbon footprint, which shows a noteworthy increase rate of 257% for electric cars, and 376% for electric scooter/motorcycle searches. Along with the current

pandemic, these increasing numbers represent an opportunity for businesses to promote sustainability and engage with consumers on what they are looking for at the moment (Bangkok Post, 2020). It can be said that Thai consumers are moving forward into adopting green lifestyle as more and more varieties of environmental-friendly products and services are becoming available to choose from as long as they are affordable and being transparent in terms of information and origin. Hence, this research aimed to study the relationship between Thailand's fast growing social media usage and Thai people's environmental issues' awareness and their behavioral tendency to be able to utilize the social media platforms as tools to create awareness regarding the environment and vice versa.

### **1.3 Research Objectives**

1. To study the consumers' exposure to Facebook pages regarding the environment in Thailand.
2. To study the relationship between consumers' exposure to Facebook pages regarding environment and their environmental awareness in Thailand.
3. To study the relationship between consumers' environmental awareness and their behavioral tendency in Thailand.

### **1.4 Research Questions**

1. How are consumers exposed to Facebook pages regarding the environment in Thailand?
2. How is consumers' exposure to Facebook pages regarding environment related to their environmental awareness in Thailand?

3. How is consumers' environmental awareness related to their behavioral tendency in Thailand?

### **1.5 Scope of the Study**

The purpose of this study is to obtain information on how consumers' exposure to Facebook correlates with consumers' environmental awareness and behavioral tendency in Thailand. The research applied a quantitative approach in the form of an online questionnaire as the research instrument. The questionnaire explored three main concepts, consumers' exposure to Facebook regarding the environment, their environmental awareness, and their behavioral tendency. The study's focus is on 200 respondents between the ages of 18 to 64, who are active Facebook users and currently have residence in Thailand through the use of online questionnaire. According to Datareportal (2021), the majority of the age range of Thai people on social media suggested to be 18 to 64, hence this age range was used for the study.

### **1.6 Operational Definitions**

#### **Consumers**

Consumers refers to both male and female consumers ages between 18 - 64 years old who have active Facebook accounts and are exposed to Facebook pages' contents regarding the environment.

#### **Exposure to Facebook pages regarding environment**

Exposure to Facebook constitutes the frequency and type of posts in which consumers obtain information about the environmental issues (Facebook, 2019; Finn, 2019; Hutchinson, 2017; Iakovleva, 2017; Pahwa, 2017; Solomon, 2015; Wishpond,

2014) (cited in Manomaiphikul, 2019) This study referred to environmental friendly posts in the form of text, photos, and videos from facebook pages dedicated on environmental issues, namely 'Environman' and '3WheelsUncle' as well as other pages which provide updated news about environmental issues, new innovations about environmental friendly products, and environmental friendly approach for individual to adapt on daily basis. These two Facebook pages were chosen as main platforms for consumers' exposure because of the high number of followers and active content posting, 4 posts per day for 3WheelsUncle and 8-12 posts per day for Environman.

The measurement of consumers' exposure to facebook pages regarding environment was done by frequency of how often the consumers were exposed to the pages' text, photos, and videos posts in one week.

### **Consumers' environmental awareness**

Environmental awareness can be broadly defined as the attitude regarding environmental consequences of human behavior. Starting from the typical definition of attitude, environmental awareness is a predisposition to react to environmental issues in a certain manner (Culiberg and Rojšek, 2008). With the purpose of this study to measure consumers' environmental awareness after being exposed to facebook pages regarding environment, the survey will be tested if those consumers are aware of environmental issues and convinced to change their behaviors in order to relieve those issues.

According to Plastic Collectors (2020), the major environmental issues that should raise consumer awareness are as followed;

1. Air pollution - Caused by vehicles and manufacturing.

2. Deforestation - Caused by urbanization and construction.

3. Water Pollution - Caused by a lot of chemicals and plastics being dumped into the water sources like seas, rivers, lakes, and oceans. As well as causing the death of many aquatic lives.

4. Ozone Layer Depletion - Caused by Chlorofluorocarbons (CFCs) and halons which are commonly found in aerosol spray and refrigerants within households.

5. Loss of Biodiversity - Due to all the reasons above, there's a sharp rise of extinction of several species of plants, animals, birds, insects, and other organisms which will cause a huge imbalance in ecosystems and will eventually affect the main source of food and medicines.

The measurement of consumers' environmental awareness will be done by asking how strongly they are concerned about all the major environmental issues as mentioned earlier after being exposed to Facebook pages regarding the environment.

**Consumers' environmental behavioral tendency** - The definition of a tendency is an inclination towards a certain action or behavior (Yourdictionary, cited from Linh Nguyen 2018). According to Linh Nguyen (2018), the expected behavioral tendency upon consumers' environmental awareness is the green behavioral tendencies which are as followed;

1. Purchasing recycled products and products using recycled materials.

2. Carrying your own shopping bags, cup, and even straw whenever going shopping or buying drinks to avoid using too many single-used plastic bags, cups, and straws.

3. Using public transportation.



4. Adopting waste sorting on a daily basis.
5. Paying attention to brands that are aligned with their actions in being environmentally-friendly.
6. Convincing and setting a good example to one's family and friends to adopt green behavior.

### **1.7 Benefits of the study**

1. To obtain insight of consumers' who have seen Facebook posts regarding environmental issues, environmental friendly products, their reactions, and their behavioral tendencies.
2. To obtain results from the study to be analyzed and make further suggestions to government affairs/business owners on how to apply environmental issues marketing to accomplish communication objectives and therefore achieve maximum benefit from appropriate environmental issues posts on Facebook. The study's outcome could be considered as a motive for all environmental friendly campaigns to adopt appropriate and practical communication messages and gain a positive point of view from the consumers.

## **CHAPTER 2**

### **LITERATURE REVIEW**

This chapter focuses on the variables applied in the framework of this study which are media exposure to Facebook posts, environmental awareness, and behavioral tendency. The concept of Facebook page ‘Environman’ and ‘3WheelUncle’ posts regarding environmental issues are also reviewed.

1. The chapter begins by the definition of media exposure to Facebook posts and the content on Environman and 3WheelUncle regarding environmental posts.

2. Consumers’ environmental awareness and the major environmental issues are addressed.

3. Consumers’ environmental behavioral tendency, green marketing, and the adoption of green consumers in Thailand.

3. Related research will also be reviewed.

4. The chapter will conclude with the conceptual framework of this study.

#### **2.1 Exposure to Facebook Pages**

##### **2.1.1 Media Exposure**

Media exposure may be defined as “the extent to which audience members have encountered specific messages or classes of messages/media contents” (Slater, 2004). According to Esmailpour and Zakipour (2016), each of the traditional five senses, composed of sight, sound, smell, taste, and touch, contains receptors which can respond to stimuli. When a stimulus is detected, a person could either focus on the sensation or ignore the input.

Whereas Solomon (2015) stated that exposure occurs when a stimulus comes within the range of someone's sensory receptors. It can be the frequency, or the number of times, in which a person comes into contact with a message and continues to notice the stimulus. According to Shimp and Andrews (2013), reach is defined as the proportion of the audience exposed one or more times to advertising vehicles during the course of a typical four-week campaign. The idea of effective reach is applied only if it does not reach members of the target audience too few or too many times. It is also said that in order for the message to be effective, the minimum three exposures are required which is so-called as a three-exposure hypothesis. Its originator, an advertising practitioner named Herbert Krugman, stated that a consumer's initial exposure to a brand's advertising initiates a response of "What is it?" The second exposure triggers a response of "What of it?" And the third exposure and those thereafter are merely reminders of the information that the consumer already has learned from the first two exposures. According to Potter (2012), these exposures from media can influence the ability to acquire, trigger, alter, or reinforce information as it affects consumers on many dimensions such as attitude, behavior, beliefs, cognition, or psychology.

Exposure is the first state of the Consumer Processing Model (CPM), it is a fundamental task to deliver messages to consumers who will process the messages, understand the brand positioning, and undertake the course of action. Somehow the successful communication process mainly depends on the quality and the frequency of the message. As mentioned earlier, the frequency should not be too few or too many times alongside adequate tools for delivering particular messages. In other words, delivering the consumers the right message at the right time. Thus, media

exposure to materials at the right time can affect consumer's preferences, create awareness, and therefore; affect their behavioral tendency since preference is a behavioral tendency that exhibits itself in how a person acts toward an object (Shimp & Andrews, 2013)

According to Castells (2007), the increase in individualization and personalization of media use has created a communication form called mass self-communication. It shares with mass communication the notions that messages are transmitted to potentially large audiences and the reception of media content tends to be self-selected. Which means the media users select media content to serve their own needs.

Once the media users who are potential consumers are exposed to media, according to Campbell (2019), there are three different types of media which are owned, earned, and paid. Owned media are channels that the brands create and control. These could be company blogs, YouTube channels, websites, and Facebook pages. Even if the companies do not strictly own the YouTube channels or Facebook pages, the companies can control them and do not have to pay for basic functions. The upgrade functions might include payment which will be categorized in Paid media. Earned media is when customers, the press and the public share the content, speak about the brand via word of mouth, and discuss the brand. In other words, the mentions are "earned," meaning they are voluntarily given by others. Lastly, paid media is when the brands pay to leverage a third-party channel, such as sponsorships and advertising on third-party sites. The combination of "owned, earned, paid media." is workable and said to be the best practice nowadays. It is the practice of

using one media channel to amplify or extend another type, professionally managing the channels, and maximizing the opportunity for the brand to achieve success.

According to BigCommerce Essentials (2019), improving upon and leveraging owned media can increase the effectiveness of both paid and earned media. Online businesses should start by focusing on owned media since the company has full control over it, it can reach its target more promptly than other forms of media, the content has longevity which it stays on social media and never really disappears, the company can adapt versatility by creating a variety of contents, and it is efficiency in cost control. Owned media can also lead to earned media when the owned media is produced effectively and steadily. With an alluring website and compelling content, online publications and notice from online social media users. It will benefit the company greatly to start by focusing on owned media until earned media which is considered to be more trustworthy to the consumers is gained.

### **2.1.2 Facebook Pages**

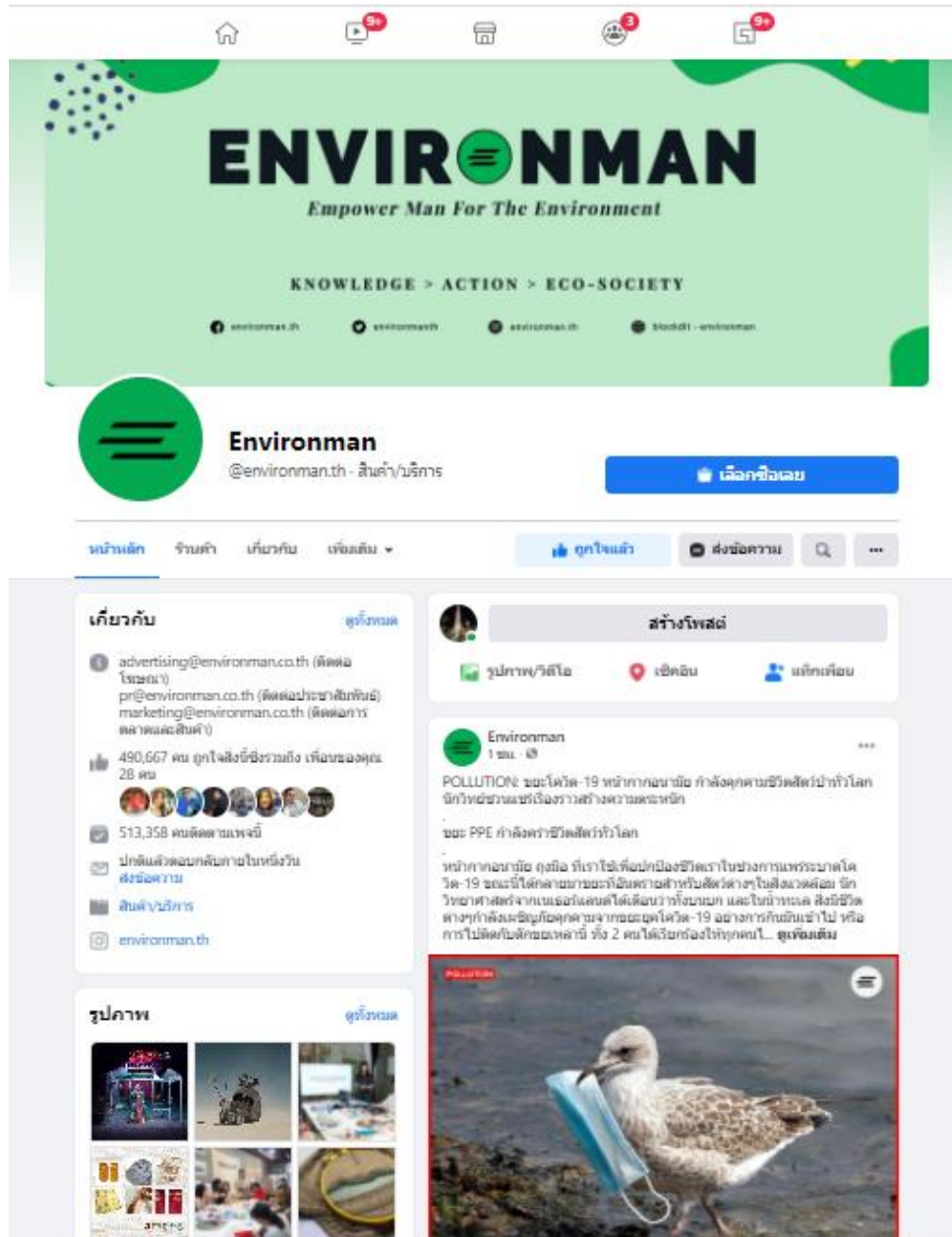
According to Statista (2020), Facebook ranked first among the leading social media networks in Thailand. With about 54.57 million users, Thailand can even be counted among the leading social media countries in Southeast Asia. According to Mohsin (2021), there are 200 million businesses around the world using Facebook's tools. It is undeniable that Facebook connects more people than any company ever has in the past and the businesses know this too. Now millions of businesses around the world rely on Facebook to connect with people. That's why many marketing plans rely on Facebook pages to reach and connect with the consumers to promote and give information, green marketing included.

Facebook pages can be the combination of Paid, Owned, and Earned media (Campbell, 2020). Since the content is created by the owner of that particular page, it is Owned. To share it on Facebook to generate Earned, and in order to reach more audience, make it a Sponsored Post for \$40 or \$60 to reach more visibility then it becomes Paid. As well as paying some influencers as Paid to create interesting and shareable contents the the company blog which is Owned, then amplify it heavily through social media to generate Earned mentions.

According to Wishpond (2014), there are various kinds of content that can be posted on Facebook pages which are categorized into three main types: Images, Videos, and Text. Images can also be divided into Single Image or Photo Album. A Single Image in a Facebook post will generate 120% more engagement than the average post since photos are engaging and easy to digest, making them the most effective tool for content marketing. Whereas Photo Albums generate 180% more engagement than the average post. They are considered a great way to promote content from events, new product lines, and photo galleries of related content. Multiple pieces of content are allowed to be posted at once without annoying users with multiple posts, giving each post the ability to be engaging or interesting to more users at once. Facebook posts that include a video generate 100% more engagement than the average post given that it is short and simple, easy to digest. Lastly, Text is best used in a short form, between 100 and 250 characters (less than 3 lines of text) gain about 60% more likes, comments and shares than posts greater than 250 characters.

### 2.1.3 Environman Facebook Page

Figure 2.1 Environman Facebook Page



Source: Environman (2021). *Environman Facebook Page*. Retrieve March 27, 2021, from

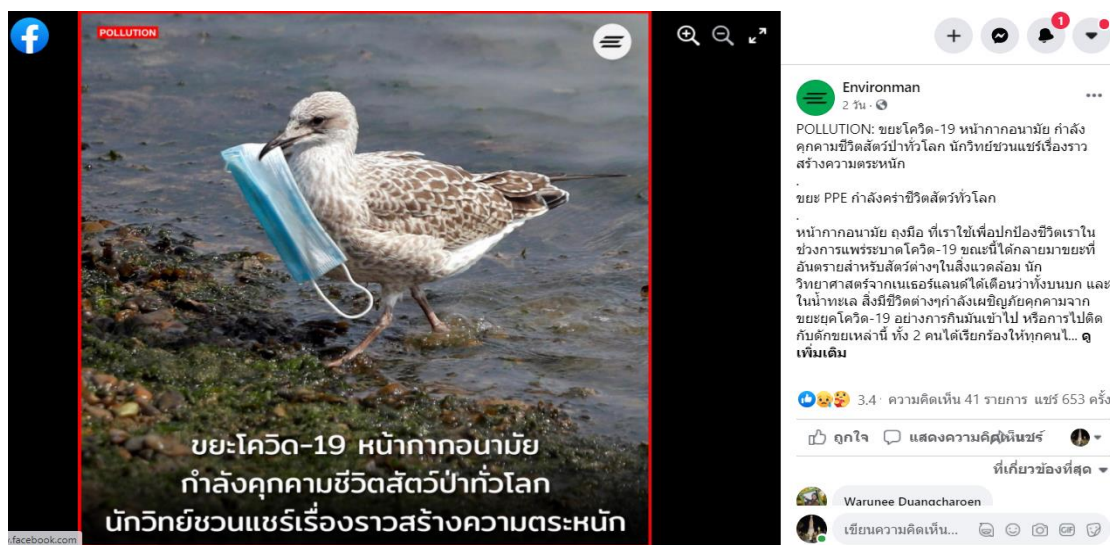
Environman Facebook Page: <https://www.facebook.com/environman.th/>

Environman Facebook page (Figure 2.1) was founded in 2018 with the purpose of creating environmental awareness among Thai people in Thailand. With the idea of alerting people about environmental impact and creating realization that everyone's small action affects the environment, as well as everyone is a part of the environment and ecosystem (Dueankloy, 2020). The page posts photos with text contents and video to reach and promote the news regarding the environment and most likely how to substitute the products that will ultimately become wastes that will affect the environment and ecosystem with the products that are more environmental friendly and can be recycled repeatedly.

Environman Facebook page updates on a daily basis with approximately 8-12 posts per day to update environment news around the world. As mentioned earlier, the types of posts on Environman Facebook Page are: Images, Videos, and Text, which Figure 2.2-2.4 will be demonstrating the example of these posts.



Figure 2.2 Photo and text post on Environman Facebook Page



Source: Environman (2021). *Environman Facebook Page*. Retrieve March 29, 2021, from Environman Facebook Page: <https://www.facebook.com/environman.th/>



Figure 2.3 Multiple photos Post on Environman Facebook Page



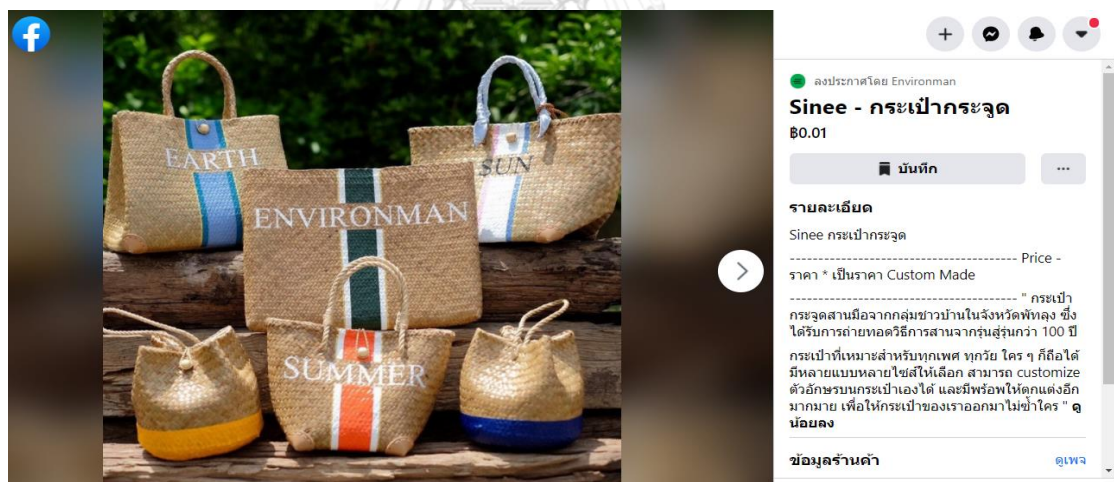
Source: Environman (2021). *Environman Facebook Page*. Retrieved March 29, 2021, from Environman Facebook Page: <https://www.facebook.com/environman.th/>

Figure 2.4 Video Post on Environman Facebook Page



Source: Environman (2021). *Environman Facebook Page*. Retrieve March 29, 2021, from Environman Facebook Page: <https://www.facebook.com/environman.th/>

Figure 2.5 Items selling on Environman Facebook Page

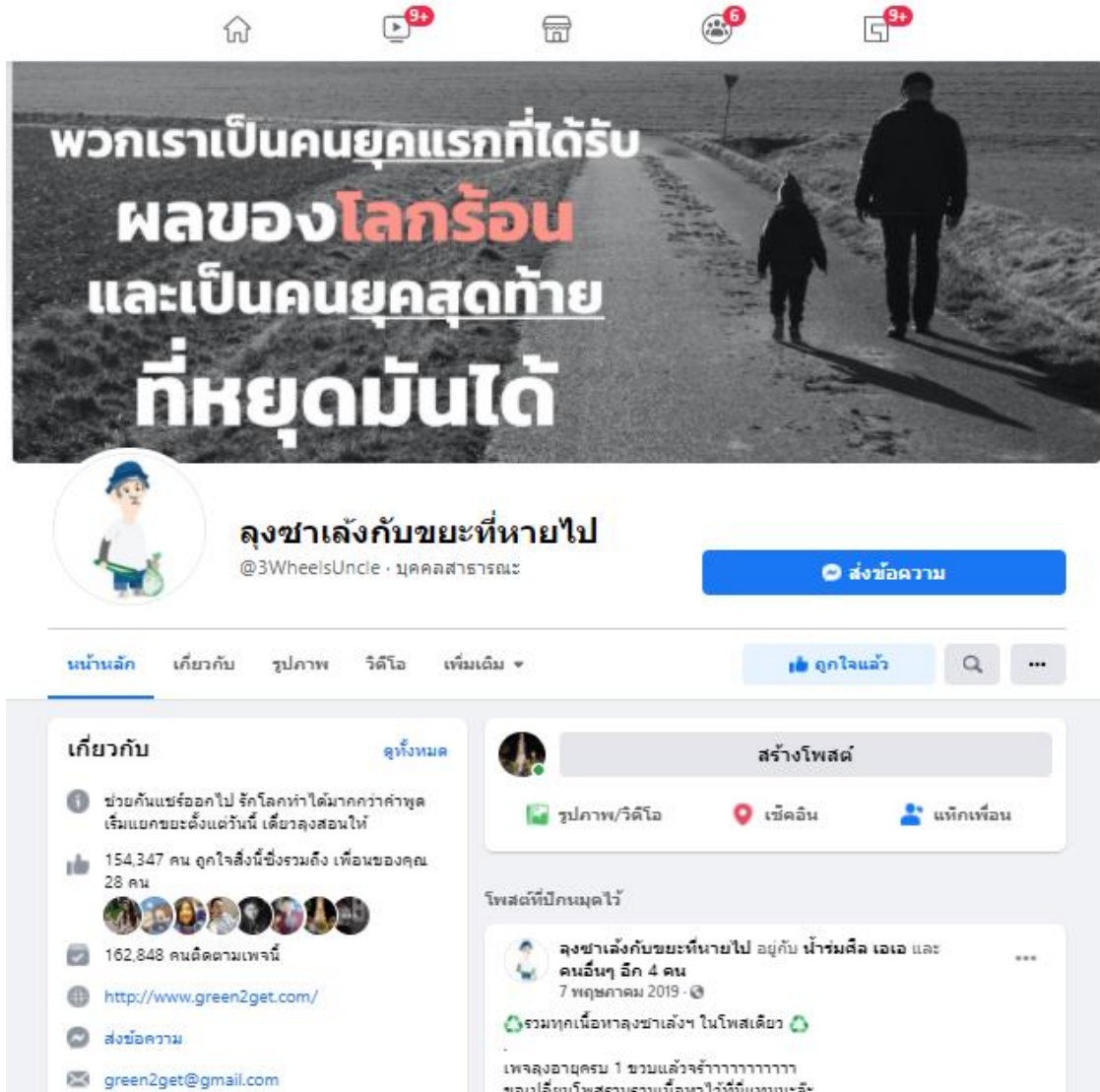


Source: Environman (2021). *Environman Facebook Page*. Retrieve March 29, 2021, from Environman Facebook Page: <https://www.facebook.com/environman.th/>

Additionally, according to Figure 2.5, Environman Facebook Page also offers customized products which were made from natural materials and are environmentally friendly as alternatives for consumers to choose from.

### 2.1.4 3WheelsUncle Facebook Page

Figure 2.6 3WheelsUncle Facebook Page



Source: 3WheelsUncle (2021). *3WheelsUncle Facebook Page*. Retrieved March 29, 2021, from 3WheelsUncle Facebook Page: <https://www.facebook.com/3WheelsUncle/>

3WheelsUncle Facebook Page (Figure 2.6) was founded in April 2018 with the purpose of providing knowledge of trash sorting and recycling in order to preserve the environment and reduce pollution. The founder of the page also mentioned that

the cooperation from Government sectors would be very significant to create awareness and adopt new practices in trash sorting and recycling (NakaSingha, 2019).

Posts on 3WheelsUncle Facebook page are also in forms of Photos, Videos, and Text as will be shown in Figure 2.7- Figure 2.9.

Figure 2.7 Photo and Text post on 3WheelsUncle Facebook Page



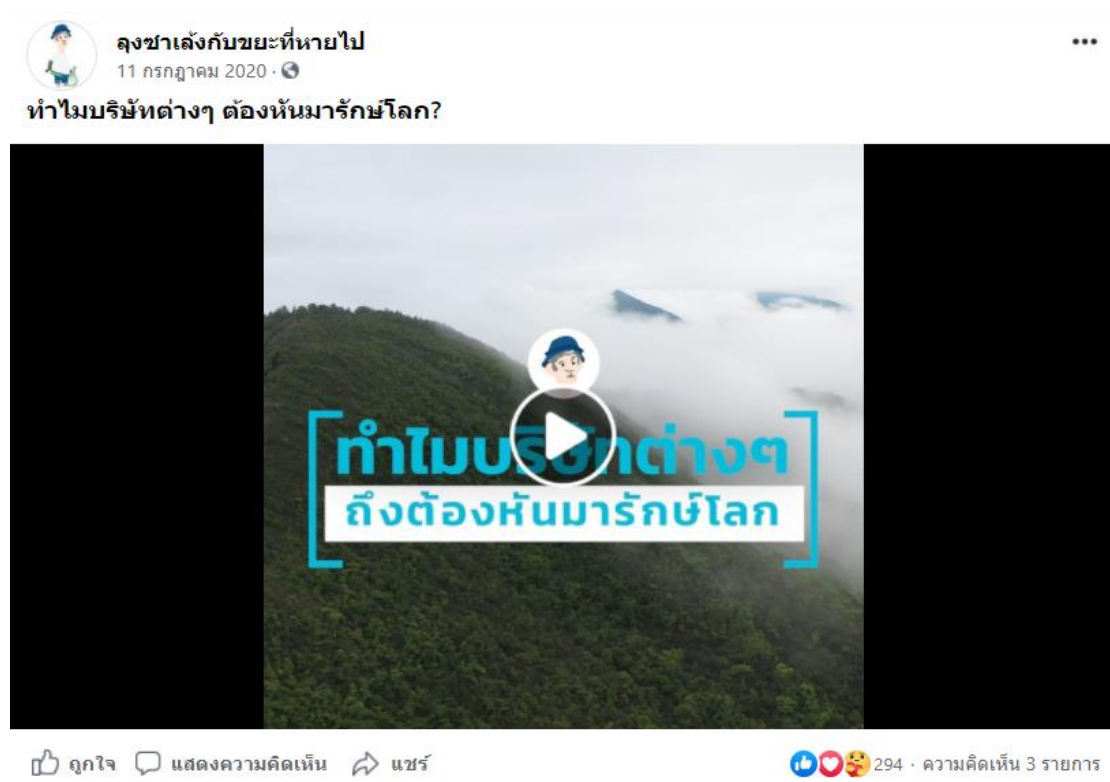
Source: 3WheelsUncle (2021). *3WheelsUncle Facebook Page*. Retrieved March 30, 2021, from 3WheelsUncle Facebook Page: <https://www.facebook.com/3WheelsUncle/>

Figure 2.8 Multiple Photos Post on 3WheelsUncle Facebook Page



Source: 3WheelsUncle (2021). *3WheelsUncle Facebook Page*. Retrieve March 30, 2021, from 3WheelsUncle Facebook Page: <https://www.facebook.com/3WheelsUncle/>

Figure 2.9 Video Post on 3WheelsUncle Facebook Page



Source: 3WheelsUncle (2021). *3WheelsUncle Facebook Page*. Retrieve March 30, 2021, from 3WheelsUncle Facebook Page: <https://www.facebook.com/3WheelsUncle/>

These ideas about Media Exposure to Environman Facebook Page and 3WheelsUncle Facebook Page are used to create the questionnaire for this research study's survey.

## 2.2 Environmental Awareness

Since the beginning, human beings have found that their survival depends on harmony with nature and that the destruction of nature is their destruction too. However, with the growth of human capabilities in the recent centuries the environmental equilibrium was disrupted. Being aware of the destruction of natural resources as a result of human activities and the need for preservation of the

environment have increased environmental awareness of consumers' behaviors (Esmailpour & Bahmiary, 2017; Kumar and Ghodeswar, 2015). To define environmental awareness, we must first understand the environmentalist movement. Environmentalism is an ideology that evokes the necessity and responsibility of humans to respect, protect, and preserve the natural world from its anthropogenic (caused by humans) afflictions. Environmental awareness is an integral part of the movement's success. By teaching our friends and family that the physical environment is fragile and indispensable, we can begin fixing the problems that threaten it (Pachamama, 2021). Therefore; it is important to understand how fragile the environment is and how significant of its protection. To promote environmental awareness is the important step to preserve and provide a better environment for the next generations to come.

According to Reyes (2014), there is also value in exploring new forms of environmentally significant behaviors such as online activism, forwarding SMS and E-mail, Tweeting, Facebook liking, Selfies, hashtags, posting in forums, crowdsourcing, writing congress, and other forms of electronic campaigning that 'raise awareness or at least voice concern' (Thaler, Zelnio, Freitag, MacPherson, Shiffman, Bik, Goldstein, & McClain, 2012) Those may open up new opportunities for environmentalism, particularly as engagement in the more traditional notions of public behaviors were found to be decreasing over time in many countries (Hadler & Haller, 2013), whilst private environmental behaviors had been found to be increasing. Such private, convenient, and limited participation can eventually morph into newer and creative forms of activism enabled by information and communication technologies within social media platforms.



It is also important to know and somehow have a thorough understanding of environmental issues before being able to promote its awareness, especially the ones that are affecting our own community. There are numerous resources available to promote environmental awareness and education such as group learning, informational and inspirational seminars, online courses, books, articles, videos, and brochures are good examples of tools for promoting environmental awareness (Pachamama, 2021)

According to the Environmental Protection Agency (2020-2021), it has become even more challenging for the agency to protect human health and the environment during Covid-19 pandemic due to personnel shortages, utility and infrastructure damage that may render drinking water and wastewater treatment inoperable for a period of time. Environmental laws and regulations are designed to protect people from excess pollution. Since EPA risk communication is a vital component of the EPA's mission of protecting public health and the environment, it is essential that the updated and high-quality information be communicated to the public and how to protect themselves.

According to Plastic Collectors (2020), the major environmental issues that should raise consumer awareness are air pollution, deforestation, water pollution, Ozone layer depletion, and loss of biodiversity. The purpose of this study is to measure consumers' environmental awareness after being exposed to Facebook posts about the environment whether they are aware of environmental issues and convinced to change their behaviors in order to relieve those issues.

### 2.2.1 Green Marketing

According to the American Marketing Association (AMA), green marketing is the marketing of products that are presumed to be environmentally safe. Therefore; green marketing incorporates a broad range of activities, including product modification, changes to the production process, packaging changes, and modifying advertising. The term green marketing came into prominence in the late 1980s and early 1990s. In simple terms green marketing refers to the process of selling products and/or services based on their environmental benefits. Such a product or service may be environmentally friendly in itself or produced and/or packaged in an environmentally friendly way (Pranali, 2021). Other similar terms used are Environmental Marketing and Ecological Marketing. Green Marketing is a holistic and responsible strategic management process that identifies, anticipates, satisfies, and fulfills stakeholder' needs for a reasonable reward that does not adversely affect human or natural environmental well-being (Majid, Amin, & Kansana, 2016). It also pinpointed the suggested reasons for firms increased use of Green Marketing which are; accomplishment of firm's objectives, corporate social responsibilities, government norms/regulations that force firms to switch to green marketing, competitive advantage over competitors in the market, and cutting the cost factors of disposal of harmful industrial effluents.

Awareness of the consumer ranks first among all the essentials for going green since a long term change in consumer behaviors is very significant. The companies would make an effort in informative advertising to provide information and education about the harms the environment and society can face in the long run and create awareness in consumers to adopt more healthy practices to save the environment.

Other essentials include the companies to go completely transparent towards corporate social responsibility and Green Marketing, not just using them as tools to promote the company. As well as reassuring the consumers of the product qualities and performances which definitely would affect customer's decision and behavior in the long run. Lastly, the pricing strategy is important since products made from plant origin ingredients and environmentally friendly might cost higher but the consumers will consider buying if they are aware of its importance.

In conclusion, for Green Marketing to really work and be implemented, all sectors need to cooperate from government sectors to work with business sectors and spread information and education to create consumers' awareness towards environmental situations and accommodate with effective and good quality environmental friendly products yet affordable to be able to help the consumers to change their consumption behavior into more healthy and environmental friendly in the long term.

### **2.2.2 Green consumers**

Green consumers are thought to be motivated by strong environmental values and attitudes, therefore seeking environmental product information, rationally weighing the utility provided by a particular product against the environmental cost attached and making a purchasing decision based on these environmental criteria in conjunction with more conventional considerations of price, quality, and convenience (Schaef & Crane, 2005). Recognition of environmental impact has created a niche consumer market referred to commonly as 'green consumers'. The term 'green' is interchangeable with 'pro-environmental' and is broadly defined as indicating 'concern with the physical environment (air, water, land)' (Shrum, A. McCarty, &

Lowrey, 1995). There was the belief that younger persons are more environmentally concerned in the earliest years of research into consumption behaviour (Berkowitz and Lutterman 1968; Anderson and Cunningham 1972; Van Liere and Dunlap 1980). Nevertheless, Laroche, Bergeron, & Barbaro-Forleo (2001) proposed that there was a reversal in the early 1990s when older persons became more likely to show environmental concern. Linh Nguyen (2018) also mentioned that green purchasing is still a developing inclination for the environmental concern in many countries. Especially in Vietnam, shoppers appear to be scarcely exposed to the concept of green purchasing while green products (eco-friendly products) are moderately new for Vietnamese citizens.

Thailand has recently stepped up with a new policy to promote environmentally-friendly products and services. According to Switch Asia (2020), the recent National Economic and Social Development Plan (NESDP) 2017-2021, which is built on the 9th-11th NESDP and His Majesty's "Sufficiency Economy" philosophy, provides a policy framework for identifying strategic directions concerning Thailand's sustainable social and economic development within a healthy environment. Among the significant key strategies in the 12th NESDP is promoting sustainable consumption and production or SCP.

The number of green certification schemes for product and services in Thailand established by various organizations has also been growing. Some of them are recognized by the government's green procurement programme such as Thai Green Label, Carbon Footprint, Energy saving label, CoolMode, Green Leaf, and Green Hotel. The private sector also has its certification schemes for environmentally-friendly products/material such as SCG Eco-Value, Green for Life, and Green Heart.

Figure 2.10 Green Certification Schemes in Thailand



Source: Switch Asia (2020, August 6). *Thailand steps up with new policy to promote environmentally-friendly products and services*. Retrieve April 8, 2021, from Switch Asia: <https://www.switch-asia.eu/news/thailand-steps-up-with-new-policy-to-promote-environmentally-friendly-products-and-services/>

Due to some of those green certifications are certifying the same products and services with different principles and approaches which might have caused confusion for consumers and on the implementation of the green public government. While the number of green certification schemes has been increasing, the number of certified products and services is still limited and the implementation of the green public procurement of the country has yet to be improved. It implies that Thailand is still in need of a strategy to promote environmentally-friendly products and services to support the implementation of green procurement but it is progressing and more people are paying more attention to the details to ensure its authenticity of being environmentally friendly.

### 2.3 Related Research

In 2012, a study was done on Environmentalism and green purchasing behavior but the study focused on graduate students in Bangkok, Thailand. The samples are graduate students from 14 universities in Bangkok in various fields such as engineering, humanities, arts, sciences, business, education, and others. The aim of the study is to examine the influence of environmental consciousness, environmental attitude, concern for Thailand's environment, reference group influence and demographic factors on Thai graduate students' green purchasing behavior. The findings showed that environmental consciousness, concern for Thailand's environment and reference group influence were significant predictors of green purchasing behavior. The findings showed no significant relationship between age, gender, income and green purchasing behavior of graduate students in Bangkok (Arttachariya, 2012).

In 2018, Linh Nguyen conducted the study on the relationship between Facebook users' motivation on environmental issues, environmental awareness and behavioral tendency in Vietnam. The objectives of this research were to study the Facebook users' motivation on environmental issues, their environmental awareness and behavioral tendency in Vietnam and to explore the relationship among these three variables. Three social media influencers who had more than 10,000 followers on their Facebook profiles, demonstrated open, explicit environmentally-friendly lifestyles and achieved certain media recognition were invited to join in-depth interviews. The research was conducted by respondents from Vietnamese male and female respondents, aged between 18 and 45 years old and currently residing in Vietnam. The results depicted that the respondents had a positive opinion on

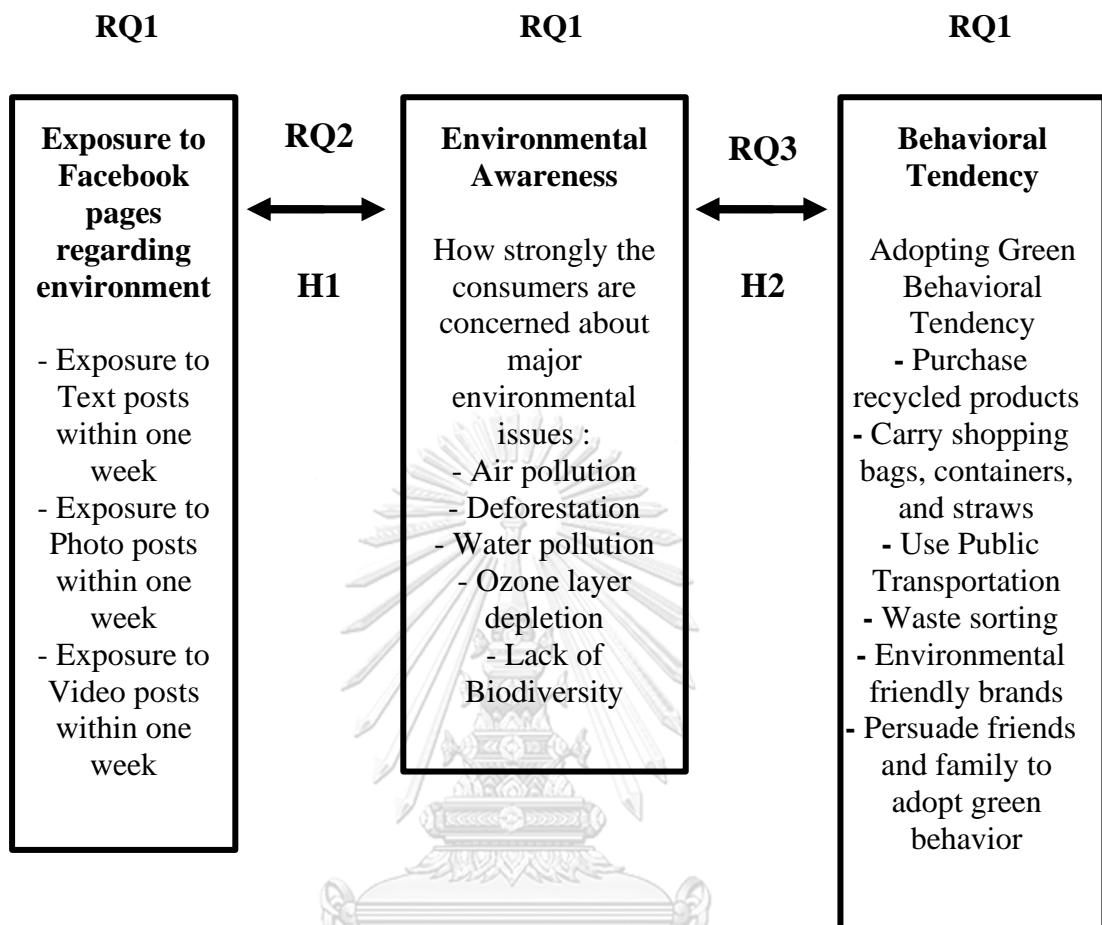
Facebook users' motivation on environmental issues, with interesting contents receiving the highest score and the size of the follower range receiving the lowest overall score. Moreover, the respondents had a positive attitude towards environmental awareness and were highly concerned about the waste problem. Furthermore, the respondents had a positive attitude towards the behavioral tendency and strongly care about the alignment between a brand and its action in being environmentally-friendly. In regard to the relationship among the variables, the research results demonstrated that Facebook users' motivation environmental issues is positively related with the respondents' environmental awareness and environmental awareness is positively related with the respondents' behavioral tendency.

This study has applied concepts from the previously mentioned research and sought to find out whether the relationships among the variables of the consumers' media exposure to Facebook, the consumers' environmental awareness, and behavioral tendency in Thailand are correlated. Figure 2.11 displays the conceptual framework that will be studied for this research.

#### **2.4 Research hypotheses**

1. There is a relationship between Facebook page's exposure and environmental awareness.
2. There is a relationship between environmental awareness and behavioral tendency.

Figure 2.11 Conceptual Framework





## **CHAPTER 3**

### **METHODOLOGY**

This chapter entails the methodology for conducting this research. It touches upon the population and sample size, followed by the sampling technique and measurement of variables to be applied before concluding with the procedures which are used for data analysis and presentation. The details on the collection of the data are as followed:

#### **3.1 Research Methodology**

This study takes a quantitative approach through the use of an online questionnaire for 200 respondents, between the ages of 18 to 64, who are Facebook users in Thailand and have been exposed to Environman and 3WheelsUncle's Facebook posts about the environmental-related contents during May 1, 2020 to May 31, 2021.

Environman's name came from 'Environment + Man' which represents the concept that environment and humans should be as one since it affects one another. If the environment is in good condition, then it affects humans in a good way, on the other hand if the environment is bad then it affects humans in a bad way. Another concept of the page is 'Empower Man for The Environment' with 527K followers as of April 2021. While 3WheelsUncle Facebook page focuses mainly on sorting and recycling trash as well as recommending environmental friendly packages, providing good knowledge and environmental awareness to the consumers, the page has 166K followers as of April 2021.

### **3.2 Population and Sample**

The data collected from 200 respondents who have been exposed to Environman and 3WheelsUncle's or other Facebook pages regarding environmental issues between the ages of 18 to 64 and are active Facebook users in Thailand.

### **3.3 Sampling Techniques**

This research makes use of the non-probability method, purposive sampling, and convenience sampling. In terms of purposive sampling, the online questionnaires are given to the consumers who are active Facebook users between the age of 18 to 64 and have been exposed to Environman's and 3WheelsUncle's posts regarding environmental issues during May 1, 2020 to May 31, 2021.

In regard to convenience sampling, the questionnaires were distributed on environmental dedicated Facebook groups. With the use of a preliminary question, those who did not meet the requirements were eliminated.

### **3.4 Research Instruments**

The data collected in this research was done online through the use of Google Forms. The questionnaire contained 23 questions including the screening questions; there were three sections to the questionnaire. Samples were requested to choose the answers which best identified with their awareness and behavior tendency on Likert scale from strongly disagree to strongly agree. The frequency in which samples were exposed to Facebook post from "Environman" and "3WheelsUncle" were also collected on a scale from 5 (Always) to 1 (Never).

The three sections of the questionnaire are as followed:

### **Section 1. Preliminary Questions - 4 questions**

The set of preliminary questions is used to screen for qualified participants who are both male and female age between 18 to 64 years old, currently having residences in Thailand, and have been exposed to the Facebook pages of Environmen's and 3WheelsUncle's or other pages' posts regarding environmental related contents during May 1, 2020 to May 31, 2021. Only those qualified are allowed to complete the remaining questions.

### **Section 2. Exposure to Facebook's posts regarding Environmental issues through Environman and 3WheelsUncle or other Facebook pages, their awareness, and behavioral tendency**

This section is further separated into 3 parts.

#### **Part 1: Consumers' exposure to Facebook pages regarding environment through Environman and 3WheelsUncle or other Facebook pages - 3 questions**

Part 1 of section 2 measures the frequency of exposure (Manomaiphikul, 2019) to Facebook's posts regarding Environmental issues through "Environman" (<https://www.facebook.com/environman.th>) and "3WheelsUncle" (<https://www.facebook.com/3WheelsUncle>).

#### **Part 2: Consumer's Environmental Awareness - 6 questions**

Part 2 of section 2 will ask about consumers' awareness of environmental issues after being exposed to Facebook pages regarding environment. All questions are adapted from Linh Nguyen (2018).

#### **Part 3: Consumer's Behavioral Tendency - 7 questions**

Part 3 of section 2 will focus on the consumers' behavioral tendency after being exposed to Facebook pages regarding environment, gaining awareness, and eventually

being convinced to change their behaviors in order to relieve those issues. All questions are adapted from Linh Nguyen (2018).

### **Section 3. Demographic - 3 questions**

This section collected other general information of the correspondents such as gender, education level, and occupation.

### **3.5 Measurement of Variables**

There are three variables in this study.

**Variable 1:** Exposure to Facebook Pages

**Variable 2:** Environmental Awareness

**Variable 3:** Behavioral Tendency

Exposure is measured as a frequency in which mean and standard deviation were calculated. While Awareness and Behavioral Tendency are measured using the 5-point Likert Scale based on the coding by Owusu-Manu, Toroku, Pärn, Addy, and Edwards (2017).

Two correlation tests are conducted in order to analyze the three variables. The first is to gain understanding on the relationship between exposure to Facebook Page and environmental awareness. The second is to gain understanding on the relationship between environmental awareness and behavioral tendency.

**H1:** There is a relationship between Facebook page's exposure and environmental awareness.

**H2:** There is a relationship between environmental awareness and behavioral tendency.

### **3.5.1 Checks for Reliability and Validity**

Cronbach's Alpha is used to measure the reliability of the scale from the data collected. The general level of acceptance is 0.7 for the three variables to be considered correlated. (Hair, Black, Babin, Anderson, & Tatham, 2009). The pre-test of 30 samples resulted in the reliability score as follows: Exposure to Facebook Pages at 0.859, Environmental Awareness at 0.810, and Behavioral Tendency at 0.704. These reliability scores of all three variables are above the acceptance level of 0.7 and consistent.

### **3.6 Procedures of Analyzing Data and Data Presentation**

SPSS (Statistics Package for Social Science) is used to analyze the findings from the survey of 200 samples. The descriptive statistics consisting of mean, frequency, and standard deviation of each question were calculated in order to come up with an analysis on each variable. The information gained from analyzing the calculation for inferential statistics are in regard to the consumer's exposure to Facebook Pages regarding environment, their environmental awareness, and their behavioral tendency. Additionally, Pearson's Product Moment Correlation is applied to identify the relationships between variables: Facebook Page exposure and environmental awareness, and environmental awareness and behavioral tendency. An  $\alpha$  of 0.01 is accepted as an indicator that a correlation is present.

### 3.7 Data Analysis

The data collected are analyzed in SPSS (Statistics Package for Social Science) to present significant findings which can offer insights on how consumers' exposure to Facebook Pages regarding environment affects their environmental awareness and their behavioral tendency.

For descriptive statistics, the following are demonstrated from the questionnaire: mean, frequency, and standard deviation.

For inferential statistics, question which uses the 5-point Likert Scale were applied based on the coding by Owusu-Manu, Torku, Pärn, Addy, and Edwards (2017) and the correlation between the variables have applied the use of Pearson's Product-Moment Correlation based on the model by Okveja and Ongkrutraksa (2019).

*Table 3.1*  
*Likert Scale Interpretation*

<b>Likert Scale</b>	<b>Description</b>	<b>Value of Allocation</b>
1	Strongly Disagree	1.0-1.49
2	Disagree	1.5-2.49
3	Neutral	2.5-3.49
4	Agree	3.5-4.49
5	Strongly Agree	4.5-5.0

To find the correlation between the variables, a model by Okveja and Ongkrutraksa (2019) is applied with the use of Pearson's Product-Moment Correlation.

*Table 3.2*  
*Pearson Product Moment Correlation*

<b>Scoring Scale</b>	<b>Meaning</b>
1.00	Perfect positive association
1-0.75	Very strong positive association
0.75-0.50	Moderate positive association
0.50-0.25	Weak positive association
0.25-0.00	Negligible positive association
0.00	No positive association



## CHAPTER 4

### FINDINGS

This chapter will be deliberating about the results and findings from the questionnaire which was completed by 200 participants of Thai people or the ones who have residences in Thailand, aged between 18 and 64 years old. The data were collected during June 2021. The findings from this study are divided into four parts:

#### 4.1 Findings from Descriptive Analysis

Part 1: Demographics

Part 2: Exposure to Facebook Page: Environman, 3WheelsUncle, and other pages regarding environmental issues.

Part 3: Consumer's Environmental Awareness

Part 4: Consumer's Behavioral Tendency

#### Part 1: Demographics

This part illustrates the demographic data of the samples collected. These data included the sample's age, gender, highest level of education attained, and occupation.

*Table 4.1*  
*Age Range of the Respondents*

Age	<i>n.</i>	%
18 - 29 years old	24	12
30 - 39 years old	69	34.5
40 - 49 years old	75	37.5
50 - 59 years old	26	13
60 - 64 years old	6	3
<b>Total</b>	<b>200</b>	<b>100</b>



Table 4.1 demonstrates the age range of the samples which was separated into five groups. The majority of the respondents are between 40 - 49 years old which is 75 people out of 200 or 37.5% of the sample. Followed by the range of 30 - 39 years old for 69 people (34.5%), 26 people aged between 50 - 59 years old (13%), 24 people aged between 18 - 29 years old (12%), and 6 people aged between 60 - 64 years old (3%).

*Table 4.2*  
*Gender of the Respondents*

<b>Gender</b>	<b><i>n.</i></b>	<b>%</b>
Female	135	67.5
Male	61	30.5
Others	4	2
<b>Total</b>	<b>200</b>	<b>100</b>

According to table 4.2, the majority of respondents are Female which are 135 out of 200 people and accounted for 67.5% while Male respondents are 61 out of 200 and accounted for 30.5%, and 4 out of 200 people identified themselves as Others (2%).

*Table 4.3*  
*Highest Education Level of the Respondents*

<b>Education</b>	<b><i>n.</i></b>	<b>%</b>
Below Bachelor's Degree	24	12
Bachelor's Degree or Equivalent	106	53
Higher than Bachelor's Degree	70	35
<b>Total</b>	<b>200</b>	<b>100</b>

Table 4.3 demonstrates the samples' highest education attained which is separated into three groups. The majority of the respondents holds a Bachelor's

Degree or Equivalent which is 106 out of 200 and accounted for 53% of the samples. Followed by the respondents who have higher than Bachelor's Degree which is 70 out of 200 and accounted for 35%, and the last group is the ones who have below Bachelor's Degree which are 24 out of 200 and accounted for 12% of the samples.

*Table 4.4*  
*Occupation of the Respondents*

<b>Occupation</b>	<b><i>n.</i></b>	<b>%</b>
Student	13	6.5
Employee	55	27.5
Work in the Government Service/State Enterprise	40	20
Business Owner	33	16.5
Freelancer	39	19.5
Unemployed	4	2
Others (Housewife, Househusband, etc.)	16	8
<b>Total</b>	<b>200</b>	<b>100</b>

Table 4.4 demonstrates the occupation of the samples which is separated into seven groups. The majority of the respondents (55 people) are employees and accounted for 27.5% of the samples. Followed by people who work in the government service or state enterprise for 40 people (20%), followed closely by Freelancer at 39 people (19.5%), 33 people are Business Owners (16.5%), 16 people identified as Others (Housewife, Househusband, or whose occupations are not listed in this survey) (8%), 13 people are students (6.5%) and 4 people are unemployed at the moment (2%).

**Part 2: Consumers' exposure to Facebook Page: Environman, 3WheelsUncle, and other pages regarding environmental issues.**

The second part of the survey will measure how often consumers are exposed to environmental issues posts through Facebook Pages of Environman, 3WheelsUncle, and other pages regarding environmental issues and the types of post they are most frequently exposed to.

*Table 4.5  
Samples's Frequency of Exposure to environmental issues through Facebook posts*

Facebook Exposure to environmental issues	Frequency per 1 week (%)					Mean	S.D.
	Everyday	5-6 days	3-4 days	1-2 days	Less than once		
Text Post	16.5	8	16	24.5	35	2.47	1.45
Photo Post	14.5	9	17.5	26.5	32.5	2.47	1.40
Video Post	6.5	7	15	29	42.5	2.06	1.20
<b>Total</b>						<b>2.33</b>	<b>1.35</b>

With a reliability score of 0.895, Table 4.5 demonstrates how frequently per one week the respondents are exposed to each kind of posts from Facebook pages: Environman, 3WheelsUncle, and other pages regarding Environmental issues. Samples are equally most frequently exposed to Text and Photo posts at Mean = 2.47 while Text Post's S.D. = 1.45 and Photo Post's S.D. = 1.40, and the least frequently exposed is Video post (Mean = 2.06, S.D. = 1.20).

### Part 3: Consumers' Environmental Awareness

This third part of the survey reveals how they are aware of each environmental issue in Thailand. There are six questions and a Likert Scale was used where the score 5 shows strong Agreement with the statement and the score 1 shows a strong disagreement with the statement.

Table 4.6  
Samples' Environmental Awareness

Environmental Awareness	Frequency per 1 week (%)					Mean	S.D.
	Strongly Agree	Agree	Somewhat Disagree	Disagree	Strongly Disagree		
Air pollution	67	25.5	6.5	0.5	0.5	4.58 (Strongly Agree)	0.68
Deforestation	68	24.5	6.5	1	0	4.78 (Strongly Agree)	0.52
Water pollution	82.5	14.5	2.5	0	0.5	4.79 (Strongly Agree)	0.53
Ozone layer dep	72	17.5	9	1.5	0	4.60 (Strongly Agree)	0.72
Loss of biodiversity	80.5	13.5	5	1	0	4.73 (Strongly Agree)	0.60
Being aware of environmental issues in Thailand to the degree that wanting to take immediate action to protect nature from human causes.	68	24.5	6.5	1	0	4.59 (Strongly Agree)	0.66
<b>Total</b>						<b>4.58</b> (Strongly Agree)	<b>0.62</b>

With the reliability score of 0.829, Table 4.6 displays the level of environmental awareness of the respondents. The average rating for the respondents' environmental awareness is 4.68, indicating that they are strongly concerned about current environmental issues in Thailand. The highest score is water pollution in Thailand (Mean = 4.79, S.D. = 0.53), followed closely with deforestation in Thailand (Mean = 4.78, S.D. = 0.52), the third highest score is loss of biodiversity in Thailand (Mean = 4.73, S.D. = 0.60), Ozone layer depletion (Mean = 4.60, S.D. = 0.72), the respondents are aware of environmental issues in Thailand to the degree that they want to take immediate action to protect nature from human causes (Mean = 4.59, S.D. = 0.66), and the last one is air pollution in Thailand (Mean = 4.58, S.D. = 0.68). All statements are above 4.50 which indicate that respondents are strongly aware of current environmental issues.

#### **Part 4: Consumers' Behavioral Tendency**

The last part of the survey reveals consumers' level of agreement to green behavioral tendency. There are seven questions and a Likert Scale was used where the score 5 shows strong Agreement with the statement and the score 1 shows a strong disagreement with the statement.

Table 4.7  
Samples' Behavioral Tendency

Environmental Awareness	Frequency per 1 week (%)					Mean	S.D.
	Strongly Agree	Agree	Somewhat Disagree	Disagree	Strongly Disagree		
Buying products and products using recycled materials.	37.5	31	23	6.5	2	3.96 (Agree)	1.02
Carrying shopping bags with me when going shopping.	66.5	20.5	10	2	1	4.50 (Strongly Agree)	0.83
Using public transportation.	29	14.5	31	12	13.5	3.34 (Neutral)	1.36
Bringing my own straws or cups for drinks and containers for food.	29	19	29	12.5	10.5	3.44 (Neutral)	1.31
Doing waste sorting on a daily basis.	50	23	18	5.5	3.5	4.10 (Agree)	1.10
Caring about the alignment between a brand and its action in being environmentally-friendly.	49	30	17.5	1.5	2	4.23 (Agree)	0.93
Persuading my family and friends to adjust their green behavior just like I do.	46	31.5	17	3	2.5	4.16 (Agree)	0.98
<b>Total</b>						<b>3.96</b> <b>(Agree)</b>	<b>1.09</b>

With a reliability score of 0.725, Table 4.7 demonstrates the respondents' level of agreement to green behavioral tendency, with the total mean of 3.96, it indicates that respondents agree to green behavioral tendency. The highest score is "I tend to carry shopping bags with me when I go shopping" (Mean = 4.50, S.D. = 0.83), the second highest is "I care about the alignment between a brand and its action in being environmentally-friendly" (Mean = 4.23, S.D.= 0.93), the third highest is "I persuade

my family and friends to adjust their green behavior just like I do” (Mean = 4.16, S.D. = 0.98), followed by “I would like to do waste sorting on a daily basis” (Mean = 4.10, S.D. = 1.10), “I tend to buy recycled products and products using recycled materials” (Mean = 3.96, S.D. = 1.02), “I tend to bring my own straws or cups for drinks and containers for food” (Mean = 3.44, S.D. = 1.31), and “I tend to use public transportation” (Mean 3.34, S.D. = 1.36).

#### 4.2 Findings from Inferential Analysis - Hypothesis Testing

As mentioned in Chapter 2, this study means to test two hypotheses in regard to the relationship between consumers’ exposure to Facebook pages regarding environment and their environmental awareness, as well as correlation between their environmental awareness and their behavioral tendency.

**H1:** There is a relationship between Facebook pages’ exposure and environmental awareness.

*Table 4.8*  
*Pearson’s Correlation between Exposure to Facebook pages’ regarding environmental issues and environmental awareness.*

<b>Environmental Awareness</b>	<b>R</b>	<b>P-Value</b>
Exposure to Facebook pages’ regarding environmental issues	0.067	0.349

Correlation is significant at a level of 0.01 (2-tailed)

By applying Pearson’s Correlation, the results in Table 4.8 indicate that there is no relationship between consumers’ exposure to Facebook pages regarding environmental issues and consumers’ environmental awareness ( $r = 0.067$ ) at a significant level at 0.349 which is more than acceptable level at 0.01. This implies

that whether more or less consumers are exposed to Facebook pages regarding environmental issues, the consumers already have a certain amount of awareness regarding the environment. Thus, the relationship between Consumers' exposure to Facebook pages regarding environment issues and environmental awareness is so weak there is no significance statistically.

**H2:** There is a relationship between environmental awareness and behavioral tendency.

*Table 4.9*  
*Pearson's Correlation between Environmental awareness and Behavioral Tendency.*

<b>Behavioral Tendency</b>	<b>R</b>	<b>P-Value</b>
Environmental Awareness	0.346**	0.000*

\*\*Correlation is significant at a level of 0.01 (2-tailed)

By applying Pearson's Correlation, the results in Table 4.9 demonstrates that there is a weak positive correlation between consumers' environmental awareness and behavioral tendency ( $r = 0.346$ ) at a significant level of 0.01. This implies that the more consumers are aware of environmental issues, the more likely they are to adopt a behavioral tendency to be more friendly with the environment, and vice versa.



## **CHAPTER 5**

### **SUMMARY AND DISCUSSION**

#### **5.1 Summary**

The purpose of this research is to study the consumers' exposure to Facebook pages regarding environmental issues, their environmental awareness, and behavioral tendency. Additionally, the research is also conducted to find the relationship between Facebook page's exposure and environmental awareness as well as the correlation between environmental awareness and behavioral tendency. Therefore; the study will provide answers to the following research questions:

1. How are consumers exposed to Facebook pages regarding the environment in Thailand?
2. How is consumers' exposure to Facebook pages regarding environment related to their environmental awareness in Thailand?
3. How is consumers' environmental awareness related to their behavioral tendency in Thailand?

This quantitative research applies the quantitative survey approach with a sample size of 200 respondents through the use of an online survey questionnaire for 200 participants between the age 18 to 64 years old who are currently residing in Thailand and have active Facebook accounts as well as being exposed to social contents (status/caption, videos, photos) from Facebook Page 'Environman' or '3WheelsUncle' or any other Facebook pages regarding environmental issues between May 1, 2020 - May 31, 2021. With the use of a preliminary question, those who did not meet the criteria are eliminated. There are

five parts of the questionnaire which are screening questions, consumer's exposure to Facebook pages' posts regarding environmental issues, consumer's environmental awareness, and consumer's behavioral tendency.

The assembled data are analyzed in SPSS (Statistics Package for Social Science) to calculate based on descriptive statistics (mean, percentage, and standard deviation) and inferential statistics in order to verify the relationship between the variables. Together with the use of Pearson's Product-Moment Correlation, the following two hypotheses were tested:

**H1:** There is a relationship between Facebook page's exposure and environmental awareness.

**H2:** There is a relationship between environmental awareness and behavioral tendency.

Hence, this chapter will provide a summary of data, an analysis of the collected data, discussion, practical implications, limitations of the study, and directions for future research.

### *Demographics*

Out of the 200 samples, 37.5% of the samples are aged between 40 - 49 years old which is 75 people out of 200. The Female respondents are 135 out of 200 people and accounted for 67.5%. For the highest level of education attained, the respondents who hold a Bachelor's Degree or Equivalent are 106 out of 200 and accounted for 53% of the samples. In terms of occupation, 27.5% are employees (55 people) and 20% work in the government service or state enterprise (40 people).

### *Consumers' exposure to Facebook pages regarding environmental issues*

The respondents showcase that during May 1, 2020 - May 31, 2021 they are equally frequently exposed to Text Post (Mean = 2.47, S.D. = 1.45) and Photo Post (Mean = 2.47, S.D. = 1.40) with a slight difference in standard deviation.

### *Consumers' Environmental Awareness*

The respondents are mostly aware of Water pollution in Thailand (Mean = 4.79, S.D. = 0.53), followed closely by Deforestation in Thailand (Mean 4.78, S.D. = 0.52), and Loss of Biodiversity in Thailand (Mean = 4.73, S.D. = 0.60). All environmental issues awareness in this study are above the mean of 4.50, the least one is Air pollution in Thailand (Mean = 4.58, S.D. = 0.68) which means the samples are strongly aware of all the environmental issues listed.

### *Consumers' Behavioral Tendency*

The behavioral tendency that the respondents tend to adopt in order to help relieve environmental issues, the most agreeable is carrying their own shopping bags when going shopping (Mean = 4.50, S.D. = 0.83), followed by their care about the alignment between the brand and its action in being environmentally-friendly (Mean 4.23 = S.D.= 0.93).

### *Inferential Statistics Analysis*

The data collected and calculated which Pearson's Product Moment Correlation are used. The result has shown that there is no relationship between

consumers' exposure to Facebook pages regarding environmental issues and their environmental awareness ( $r = 0.067$ ) at a significant level more than 0.01 (0.349). Nevertheless, there is a weak positive relationship between consumers' environmental awareness and their behavioral tendency ( $r = 0.346$ ) at a significant level of 0.01.

## 5.2 Discussion

The findings and analysis from this study of "Consumers' exposure to Facebook pages regarding environment, environmental awareness, and behavioral tendency in Thailand" have provided information which shows the effect of exposure to Facebook pages on consumers' awareness and behavioral tendency regarding environmental issues.

Findings have been separated into three parts which are as followed:

1. How are consumers exposed to Facebook pages regarding the environment in Thailand?
2. How is consumers' exposure to Facebook pages regarding environment related to their environmental awareness in Thailand?
3. How is consumers' environmental awareness related to their behavioral tendency in Thailand?

*How are consumers exposed to Facebook pages regarding the environment in Thailand*

According to the result of this research, it is shown that respondents are equally frequently exposed to Text Post (Mean = 2.47, S.D. = 1.45) and Photo Post

(Mean = 2.47, S.D. = 1.40) and less for Video Post (Mean = 2.06, S.D. = 1.20). This also links to early study that photo posts and text posts are the most commonly used type of post on Facebook in order to reach out to consumers (Agius, 2017; Iakovleva, 2017; Pahwa, 2017). Since photos speak louder than words, visual posts are likely to appeal more to consumers (Manomaiphibul, 2019).

*How is consumers' exposure to Facebook pages regarding environment related to their environmental awareness in Thailand*

According to this study by using inferential analysis, the results have shown that there is no relationship between consumers' exposure to Facebook pages regarding environment and their environmental awareness in Thailand. Thus, this doesn't verify H1 since there is no relationship between Facebook pages' exposure and environmental awareness. This means that whether respondents are exposed to Facebook pages' regarding environment or not, they already have a certain level of environmental awareness which can be perceived through other kinds of media exposure such as television and companies' CSR (Corporate Social Responsibility) which also provide environmental education through many kinds of media (Prayukvong & Olsen, 2008).

Thus, the result is in contrast with Linh Nguyen's (2018) study that Facebook users were informed about environmental issues by social media content and they tended to form their feelings toward the issues, it is not significant enough in this particular study. The non-correlation between these two variables could be due to many possible reasons. One of the reasons could also be that Facebook's organic reach has declined. At the end of the year 2020, the organic reach of average

Facebook post is down to 5.2%. As well as Facebook algorithm that decides which content the user should see and discards posts that a user is unlikely to engage with based on that user's past behavior (Cooper, 2021). Therefore some Facebook pages regarding the environment do not reach as many audiences as other business-oriented pages do, and also given the characteristics and background of the respondents who answered the survey such as age gap, different generations, and occupation for example. Another possible reason for the weak relationship is that the samples are not only from Facebook environmental groups but also general Facebook users so they might not be exposed to environmental issues as often as the first group.

*How is consumers' environmental awareness related to their behavioral tendency in Thailand*

By using the inferential analysis, the results have shown that there is a positive but weak relationship between environmental awareness and behavioral tendency. This verifies H2 by showing a correlation between consumers' environmental awareness and their behavioral tendency in Thailand. This means once the respondents gain the awareness regarding environmental issues through Facebook pages or other kinds of media, they tend to adopt behavioral tendencies which are considered to be more environmentally-friendly. From the study, the samples tend to carry their own shopping bags when going shopping and care about the alignment between a brand and its action in being environmentally-friendly. This is in alignment with the study from Linh Nguyen (2018) which states that once Facebook users have enhanced their environmental awareness, they tend to act upon green behavior more, when they are aware of current environmental issues to some extent,

they tend to adapt their behavior to decrease the negative impact to the environment. Nevertheless, carrying shopping bags when going shopping has become compulsory in Thailand since many stores do not give out carrying plastic bags anymore. That might be the reason why it has the highest score. In order to convince more people to adopt more green behaviors, more incentives and regulations might be needed. However, despite H2 being verified, it is worth noting that the weak correlation could be due to various possible reasons given the characteristics and background of the respondents who answer this survey such as age gap, different generations, and occupation for example.

### **5.3 Practical Implications**

1) According to the result of this research, it is shown that respondents are equally exposed to Text Post and Photo Post but not in high frequency, hence these types of posts should be used but also add something more interesting, something that will capture consumers' attention more in order to communicate green behavioral tendency to the possible audiences. Since the number of social media users in Thailand is quite high, with the right platforms and tools, marketers or campaigners can successfully launch promotion to the target audience through social media as long as it catches the audience's attention and interest within a period of being exposed. Facebook also ranked first among the leading social networks in Thailand (Statista, 2020), it is still one of the most effective platforms to launch or promote business and contents.

2) According to this study, samples have very strong environmental awareness. This indicates that people are already interested in environmental issues

and being aware of its current situation in Thailand. It will be a good opportunity for brands and corporations and even small vendors to make use of this as their advantage over competitors. For example, if brands are selling similar products and services but some of them promote themselves as using environmentally friendly ingredients and packages. The consumers tend to choose the products that are more environmentally-friendly at relatively reasonable prices. Hence, the brands should focus on this as selling points with a clear message that their products or packages are environmentally-friendly so the consumers will feel more at ease to choose the products over competitors.

3) As well as to promote CSR, according to this study, Thai consumers pay close attention to brands' alignment with their action in being environmentally-friendly. The brands and government sectors should promote their CSR activities constantly as well as providing education and how to adopt green behavior. It is only second to 'carrying my own shopping bags when going shopping' because it is almost compulsory nowadays since so many large businesses do not provide plastic bags anymore or consumers need to purchase shopping bags at the counter. Thus creating habits for consumers to carry their own shopping bags when going shopping and letting us know that applying regulations is an effective way to actually get people to adopt green behavior.

4) The brands and government sectors should work together to provide more incentives and even launch new regulations in order to convince and make people adopt green behaviors such as reduction in waste collecting fees for the household that do waste sorting properly or create the trends of using recycled products by using celebrities or internet influencers as role models.



#### **5.4 Limitations of the Study**

There are a few limitations for this study as follows; 1) Since Facebook has introduced Facebook Ads in 2007 with the purpose to let businesses connect with users and to target advertising to the exact audiences they want. It also resulted in some businesses who do not apply Facebook Ads to rarely reach its audience. Facebook pages regarding environmental issues rarely do advertisement unless they have projects with private sectors or government who would fund them. Even though consumers know there are Facebook pages dedicated to environmental issues in Thailand, they can hardly be exposed to them within a week. They can only be exposed to the contents only when the posts are shared by their close Facebook friends. 2) The study is done during the year of Covid-19 pandemic, some of the green behaviors which were popular among Thai consumers before the arrival of pandemic such as bringing their own cups, straws, and containers for drinks and food and using more of public transportation, now has become less practiced due to both the consumers' choice and the shops' policy in order to prevent the spread of Covid-19. Therefore; had Facebook allowed non-ads pages be seen more or the study been done in a non-pandemic situation, the results could have provided a more accurate view on the consumers' exposure to Facebook pages, environmental awareness, and behavioral tendency in Thailand.

#### **5.5 Directions for Future Research**

The study can be applied and expanded to other platforms of social media's exposure such as YouTube, Twitter, Instagram or other platforms that are popular

within the area. The current study focuses only on Facebook pages' exposure and environmental issues in Thailand, the same concept and variables can be applied for the same field of study in other countries. Since social media is being used worldwide and environmental issues affect the world as a whole, the study should be done in each country or even regions to find the best solutions to tackle the problems and relieving the current and forthcoming environmental issues. The future research can also apply the use of qualitative approach in the form of an in-depth interview or focus group to gain more insights from the consumers regarding environmental issues, their awareness, and their behavioral tendency. It will help the researchers to better understand their opinions and even gaining comments which could further lead to better and creative solutions to tackle environmental issues, and promote environmental awareness as well as green behavioral tendency.

Hence, the future researchers can also investigate deeper into more details in environmental issues in Thailand or other countries, instead of just air pollution, deforestation, water pollution as a whole. The future research can even focus more on specific regions or areas such as the problem of wildfire or man-made forest fire in Northern part of Thailand or how to apply Ong Ang canal restoration to relieve water pollution in Bangkok's other canals.

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## APPENDIX A

### A survey on consumers' exposure to Facebook pages regarding environment, environmental awareness, and behavioral tendency in Thailand

*Note: This survey is a part of a research \*\*for educational purpose only\*\**

#### What is your age range?

- Under 18 (Stop the survey)
- 18 - 29
- 30 - 39
- 40 - 49
- 50 - 59
- 60 - 64
- 65 and over (Stop the survey)

#### Do you have residences or are currently living in Thailand?

- Yes
- No (Please stop the survey)

#### Do you have an active facebook account?

- Yes
- No (Please stop the survey)

#### Did you read or browse through any social contents (status/caption, videos, photos) from Facebook Page 'Environman' or '3WheelsUncle' or any other Facebook pages regarding environmental issues between May 1, 2020 - May 31, 2021?

- Yes
- No (Please stop the survey)

Part 1 Exposure to Facebook page regarding Environmental issues through Environman, 3WheelsUncle, and any other Facebook pages, environmental awareness, and behavioral tendency

**Please mark “X” on the choice that most matches your opinion**

Facebook Page Exposure	Frequency per 1 week				
<i>Please rate how often you see the following:</i>	Everyday	5 - 6 Days	3 - 4 Days	1 - 2 Days	Less than once
Text post regarding environmental issues from Environman, 3WheelsUncle, or any other Facebook pages regarding environmental issues					
Photo post regarding environmental issues from Environman, 3WheelsUncle, or any other Facebook pages regarding environmental issues					
Video post regarding environmental issues from Environman, 3WheelsUncle, or or any other Facebook pages regarding environmental issues					

<b>Environmental Awareness</b>	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
I'm concerned about air pollution in Thailand					
I'm concerned about deforestation in Thailand					
I'm concerned about water pollution in Thailand					
I'm concerned about ozone layer depletion					
I'm concerned about loss of biodiversity in Thailand					
I am aware of environmental issues in Thailand to the degree that I want to take immediate action to protect nature from human causes.					

<b>Behavioral Tendency</b>	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
I tend to buy recycled products and products using recycled materials.					
I tend to carry shopping bags with me when I go shopping.					
I tend to use public transportation.					
I tend to bring my own straws or cups for drinks and containers for food.					
I would like to do waste sorting on a daily basis.					
I care about the alignment between a brand and its action in being environmentally-friendly.					
I persuade my family and friends to adjust their green behavior just like I do.					



Part 2 General demographic information

**What is your gender?**

Female

Male

Others

**What is your highest education attained.**

- Below Bachelor's degree
- Bachelor's degree or equivalent
- Higher than Bachelor's Degree

**What is your occupation.**

- Student
- Employee
- Work in the government service/state enterprise
- Business owner
- Freelancer
- Unemployed
- Others (Housewife,

etc.).....

**Thank you for your time and participation on this survey**

จุฬาลงกรณ์มหาวิทยาลัย  
CHULALONGKORN UNIVERSITY

แบบสอบถามเกี่ยวกับการเปิดรับสื่อของผู้บริโภคทางเพจเฟซบุ๊กเพจที่เกี่ยวกับสิ่งแวดล้อม การ  
ตระหนักรู้ต่อสิ่งแวดล้อมและแนวโน้มการเกิดพฤติกรรมในประเทศไทย

หมายเหตุ: แบบสอบถามนี้เป็นส่วนหนึ่งของการทำวิจัย \*\*เพื่อการศึกษาเท่านั้น\*\*

ช่วงอายุ?

ต่ำกว่า 18 ปี (หยุดทำแบบสอบถาม)

18 - 29 ปี

30 - 39 ปี

40 - 49 ปี

50 - 59 ปี

60 - 64 ปี

64 ปีขึ้นไป

คุณมีที่อยู่อาศัยหรือปัจจุบันอาศัยอยู่ในประเทศไทยหรือไม่?

มี

ไม่มี (หยุดทำแบบสอบถาม)

คุณมีบัญชี Facebook ที่ใช้งานอยู่หรือไม่?

มี

ไม่มี (หยุดทำแบบสอบถาม)

คุณได้อ่านหรือเห็นโพสต์ (สถานะ / คำบรรยาย, วิดีโอ, รูปภาพ) จาก Facebook เพจ

"Environman" หรือ "ลุงชาเลี้ยงกับขยะที่หายไป" หรือเพจ Facebook อื่น ๆ ที่มีเนื้อหาเกี่ยวกับ  
ปัญหาสิ่งแวดล้อมระหว่างวันที่ 1 พฤษภาคม 2020 - 31 พฤษภาคม 2021 หรือไม่?

ใช่

ไม่ใช่ (หยุดทำแบบสอบถาม)

ส่วนที่ 1 ตอนที่ 1 การเปิดรับสื่อจาก Facebook เกี่ยวกับปัญหาสิ่งแวดล้อมผ่านเพจ Environman และ เพจลูกชาเลี้ยงกับขยะที่หายไป หรือเพจ Facebook อื่น ๆ ที่มีเนื้อหาเกี่ยวกับปัญหาสิ่งแวดล้อม ความตระหนักด้านสิ่งแวดล้อมและแนวโน้มพฤติกรรม

กรุณา tick X ในช่องที่ถูกที่สุด

การเปิดรับสื่อทาง เฟซบุ๊ก	ความถี่ใน 1 สัปดาห์				
	ทุกวัน	5 - 6 วัน	3 - 4 วัน	1 - 2 วัน	น้อยกว่า 1 ครั้ง
โพสต์ข้อความ เกี่ยวกับปัญหา สิ่งแวดล้อมจาก Environman หรือ ลูกชาเลี้ยงกับขยะที่ หายไป หรือเพจ Facebook อื่น ๆ ที่มีเนื้อหาเกี่ยวกับ ปัญหาสิ่งแวดล้อม					
โพสต์รูปภาพ เกี่ยวกับปัญหา สิ่งแวดล้อมจาก Environman หรือ ลูกชาเลี้ยงกับขยะที่ หายไป หรือเพจ Facebook อื่น ๆ ที่มีเนื้อหาเกี่ยวกับ ปัญหาสิ่งแวดล้อม					

การเปิดรับสื่อทาง เฟซบุ๊ก	ความถี่ใน 1 สัปดาห์				
	ทุกวัน	5 - 6 วัน	3 - 4 วัน	1 - 2 วัน	น้อยกว่า 1 ครั้ง
โพสต์วิดีโอเกี่ยวกับ ปัญหาสิ่งแวดล้อม จาก Environman หรือลูกชาเลี้ยงกับ ขยะที่หายไป หรือ เพจ Facebook อื่น ๆ ที่มีเนื้อหา เกี่ยวกับปัญหา สิ่งแวดล้อม					

ความตระหนักรู้ เกี่ยวกับสิ่งแวดล้อม	เห็นด้วย มากที่สุด	เห็นด้วย	เห็นด้วย พอสมควร	เห็นด้วย เล็กน้อย	ไม่เห็นด้วย
ฉันทักวลงเกี่ยวกับมล พิษทางอากาศใน ประเทศไทย					
ฉันทักวลงเกี่ยวกับการ ตัดไม้ทำลายป่าใน ประเทศไทย					
ฉันทักวลงเกี่ยวกับมล พิษทางน้ำในประเทศไทย					

ความตระหนักรู้เกี่ยวกับสิ่งแวดล้อม	เห็นด้วยมากที่สุด	เห็นด้วย	เห็นด้วยพอสมควร	เห็นด้วยเล็กน้อย	ไม่เห็นด้วย
ฉันกังวลเกี่ยวกับการลดลงของชั้นโอโซน					
ฉันกังวลเกี่ยวกับการสูญเสียความหลากหลายทางชีวภาพในประเทศไทย					
ฉันตระหนักถึงปัญหาสิ่งแวดล้อมในประเทศไทยจนถึงระดับที่ฉันต้องการดำเนินการทันทีเพื่อปกป้องธรรมชาติจากการกระทำของมนุษย์					

แนวโน้มพฤติกรรม	เห็นด้วยมากที่สุด	เห็นด้วย	เห็นด้วยพอสมควร	เห็นด้วยเล็กน้อย	ไม่เห็นด้วย
ฉันมักจะซื้อผลิตภัณฑ์รีไซเคิลและผลิตภัณฑ์ที่ใช้วัสดุรีไซเคิล					
ฉันมักจะถือถุงช้อปปิ้งติดตัวไปด้วยเวลาไปซื้อของ					
ฉันมักจะใช้บริการรถสาธารณะ					
ฉันมักจะนำหลอดและภาชนะมาเองเมื่อซื้ออาหารและเครื่องดื่ม					
ฉันต้องการจะทำการคัดแยกขยะเป็นประจำทุกวัน					
ฉันสนใจเกี่ยวกับความสอดคล้องระหว่างแบรนด์และการดำเนินการในการเป็นมิตรกับสิ่งแวดล้อม					
ฉันชักชวนให้ครอบครัวและเพื่อน ๆ ของฉันปรับเปลี่ยนพฤติกรรมรักษ์สิ่งแวดล้อมเหมือนที่ฉันทำ					

## ส่วนที่ 2 ข้อมูลทั่วไป

เพศ

หญิง

ชาย

อื่น ๆ

ระดับการศึกษาสูงสุด

ต่ำกว่าปริญญาตรี

ปริญญาตรีหรือเทียบเท่า

สูงกว่าปริญญาตรี

อาชีพ

นักเรียน / นักศึกษา

ลูกจ้าง

ข้าราชการหรือรัฐวิสาหกิจ

เจ้าของธุรกิจส่วนตัว

อาชีพอิสระ

ว่างงาน

อื่น ๆ (แม่บ้าน, พ่อบ้าน, โพรตระบุ).....

ขอบคุณสำหรับเวลาและความร่วมมือในการทำแบบสอบถาม

## VITA

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