The Important Factors Influencing the Purchase Decision of Products via Online Application (Mobile Application) of Consumers in Bangkok

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ABSTRACT

The purposes of this research were: 1) to study the purchasing behavior of products via online application of consumers in Bangkok, 2) to study the important factors influencing the purchasing decision of products via online application of consumers in Bangkok. The factors in the study consisted of demographic factors, marketing mix factors and technology acceptance factors. The samples were 400 residents in Bangkok. The data collection used questionnaire The descriptive statistics, t-test, One-way ANOA, LSD., and Multiple Regression Analysis were used for data analysis. The results indicated that consumers in Bangkok used applications before bedtime most frequently. The average frequency of online shopping per month was 1-2 times. The most frequently used platform of purchasing online application was Lazada. The average spending per order was 300-500 Baht. The products and services purchased most online applications were clothing and costume. The marketing mix factors affecting consumers' online shopping behavior in Bangkok were product, price, place and promotion. For the technological acceptance factors that affected online shopping behavior with statistical significance level at .05 were security and reliability.

KEYWORDS: Online applications, Consumers in Bangkok, Factors affecting purchase decision.

Introduction

Based on e-commerce growth data from Electronic Transaction Development Agency or ETDA, from the ever-changing environment, as a result the lifestyle of people in today's society has to change as well, from technological developments, communication equipment including the network and various signals, making people get more convenience from technology that plays a role in daily life. The rapid advancement in technology makes the current trading system different from the one before. In the past, trading was only selling products through the storefront. and the store will be known and accessible by local customers only. But nowadays, technology is increasingly used in doing

business, using the internet as a medium of trade between traders and customers. makes trading business grow rapidly because it can help reduce many obstacles, especially the current situation under the epidemic of the COVID-19, which creates a high risk of being infected easily at all times. As a result, consumers do not like to leave their place of residence to shop for consumer goods like in the normal situation. As a result, buying products via online applications is increasingly popular.

Measuring the popularity of B2C e-Commerce businesses with the Google Trends Index, an index that indicates the search volume of Thai users. By using the data to search for terms related to B2C e-Commerce business in Thailand, there are 4 search terms, i.e "Kerry" "Lalamove" "Lazada" and "Mail & package delivery". All 4 search terms were created as trend indicators, meaning using a statistical method known as Principal Component Analysis (PCA). The result of the indicator analysis found that during the year 2020 - 2021, Thai people were more interested in online shopping during the government lockdown announcement (March – May 2020) and even after the lockdown lifted. Thai people opt for online shopping. more than the previous year, as reflected in indicators that were still higher than the average of year 2019. (Boonmet Wiwattananukul, 2021)

At the end of June 2021, the results of a study "Future Shopper 2021" in Thailand were revealed by Wonderman Thomson; Thailand, a creative agency. Unified information and technology pointed out that Thai consumers were becoming the trendsetter of online shopping around the world from a survey of 28,000 people in 17 countries. It was found that Thai people had the highest rate of online shopping. Especially during the COVID-19 pandemic, 94% of consumers said online shopping was their go-to channel in 2020 that was the highest percentage when compared to the global average of 72%. Thai consumers spend more online, averaging 1,000 – 8,000 Baht (TCIJ, 2021).

In addition to the above reasons, the researchers also wanted to know what other important factors affected online shopping decisions without actually seeing the product. Or how can you be sure that the product you buy is of good quality? or get a product that meets the price paid and what kind of goods or services meet the needs according to gender, age, education, occupation for people living in Bangkok.

In order to bring the content that has been published to create awareness and understand the behavior of shopping online in more detail, Bangkok was chosen as it is the capital of Thailand, most prosperous and with the highest population density in terms of demographic diversity.

From the above reasons, the researcher is interested to study the factors influencing the purchasing decision of products via online application of consumers in Bangkok.

Purposes

1. To study the purchase decision behavior of products via online application of consumers in Bangkok.

2. To study the important factors consisting of demographic characteristic factors, marketing mix factors and Technological Acceptance factors that influence the purchase decision of products via online application of consumers in Bangkok.

Literature Review

Samart Sitthimanee (2019) conducted a research study on Factors Affecting Decision Making on Purchasing Products Via Online Channels: A Case Study of Nan Province and Bangkok. The demographic factors were gender age, education level, occupation, and income. It was found that there was no difference among gender, age, education level factors.

Kotler, Philip cited in Siriwan Sereerat et al. (2009) said that marketing mix refers to the variables that can be controlled, including product, price, place and promotion, which businesses have used together to meet satisfaction of target customers. Jidapha Thanyaratanawanich (2021) discussed the factors of technology acceptance consisting of the following three indicators.

1.Technological Acceptance Model (TAM)

TAM means whether or not someone perceives that technology to be useful for what they want to do.

2. Security and Reliability

3. Personalization

Borwornluck Sanokham (2019) conducted a research study on Factors Influencing Shopping Decisions Through Social Networks of Undergraduate Students in Bangkok and discussed the purchase decision process of consumers. The one step before the purchasing decision was made after considering the factors, it would be the level of consumers' decision about the purchase as follows: definitely buy, likely to buy, not sure, not likely to buy, and definitely not buying. Buying behavior that can be observed from frequency, cost of each purchase, the type of products ordered the most, etc.
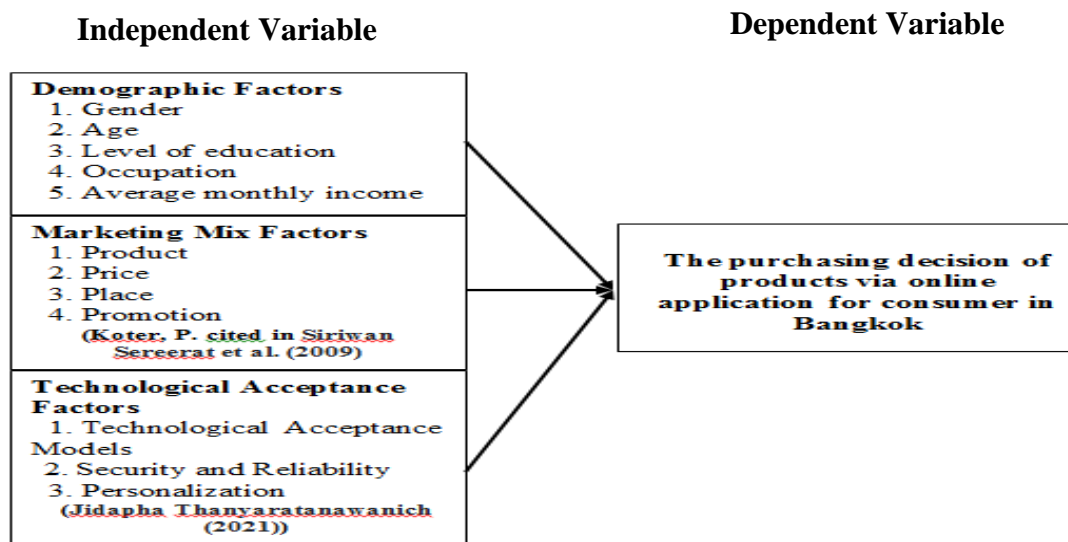
Research Framework

<div align="center">Independent Variable   Dependent Variable</div>

Demographic Factors
1. Gender
2. Age
3. Level of education
4. Occupation
5. Average monthly income

Marketing Mix Factors
1. Product
2. Price
3. Place
4. Promotion
   (Koter, P. cited in Siriwan Sereerat et al. (2009)

Technological Acceptance Factors
1. Technological Acceptance Models
2. Security and Reliability
3. Personalization
   (Jidapha Thanyaratanawanich (2021))

The purchasing decision of products via online application for consumer in Bangkok

Figure 1: Research Framework

Hypotheses

1. Different demographic factors of consumers in Bangkok will make different purchase decisions via online applications.

2. Marketing mix factors (4P's) are important factors influencing the purchasing decisions via online applications of customers in Bangkok.

3. Technological Acceptance factors are important factors influencing the purchasing decisions via online applications of customers in Bangkok.

Methodology

- Population and Sample Group

The population and the sample group were those who have shopped through online applications and live in Bangkok. The sample size using Taro Yamanae's formula reference (1973) with unknown exact population.at a 95% confidence level with a margin of error of +/- 5%, with some reserves. Therefore, the sample size was 400 individuals. The sampling method was a convenience sampling, whereby only those who had shopped through online applications in Bangkok.

Collecting Data Method

Research Tool

The research tool was a questionnaire. Before proceeding with the actual data collection, the research tool was tested for reliability by finding the Cronbach's alpha coefficient) and the confidence level of the questionnaire was 0.922

In the questionnaire, the first question asked the respondents to confirm that they were the persons who had purchased the products via online application and who lived in Bangkok. If yes, they can continue to do all the questions in questionnaire. If not, please stop to answer anymore. Therefore, we can get the target sample group.

The score level in the questionnaire is a rating scale, with 5 scores according to the Likert Scale method as follows: -

Rating Score	Meaning Level Opinion/Purchase Decision	
	Level	**Level**
5	Most agree / Definitely buy	
4	Totally agree / Should buy	
3	Moderately Agree/Not Sure	
2	A little agree / Unlikely to buy	
1	Least agree / Absolutely do not buy	

Criteria of Mean score range and their meaning (Boonchom Srisaaard, 2017)

Mean Range Criterion	Opinion Level / Purchase Decision Level
4.21-5.00	Most agree / definitely buy
3.41-4.20	Totally agree / should buy
2.61-3.40	Moderately Agree/Not Sure
1.81-2.60	A little agree / Unlikely to buy
1.00-1.80	Least agree / Absolutely do not buy

$$\text{Range} = \frac{\text{Max} - \text{Min}}{\text{No. of level}} = \frac{5 - 1}{5}$$
$$= 0.8$$

- **Statistics for Data Analysis**

1. Descriptive statistics were used Frequency, Percentage, Mean, and Standard Deviation (S.D.)

Research Result

1. The purchasing decision behavior of products via online application of consumers in Bangkok.

The analysis of data on decision-making behavior of online shopping of the sample group showed the results as follows:

1.1 The sample group was used to online shopping application, used Lazada the most, accounting for 3 1 %, followed by Ensogo 22%, Weloveshopping 14%, Zalora 11%, Kaidee (OLX) and iTruemart are at 7%, Shopee 6%, and other 2% respectively.

Average purchase frequency of online app (number of times/month) of online shoppers who bought 1-2 times per month accounted for 42%, followed by less than 1 time per month or 42%, buying 3-4 times per month or 10%, buying 5-6 purchases per month representing 4%, and buying more than 6 times per month, accounting for 2%, respectively.

2. Inferential statistics ware t-test, One-way ANOVA, LSD. and Multiple Regression Analysis for testing research hypothesis.

On average amount of purchases made via the online application per time, most of them have an average purchase cost per time d300-500 Baht, representing 26%, followed by 501-700 Baht, accounting for 19%, 901-1,100 Baht, representing 14%, more than 1,500 Baht, accounting for 12%, 701- 900 Baht or 10%, 1,101-1,300 Baht, or 8%, less than 300 Baht or 6%, and 1,301-1,500 Baht or 3%, respectively.

The most popular products and services that the sample group purchased via online applications is clothing/apparel accounted for 24%, followed by goods or electronics for 23%, shoes/bags for 20%, watches/accessories for 15%, others at 10%, books and airfares for 8% respectively.

The online shopping app that they use the most is Lazada 3 6 %, Ensogo 2 2 %, Weloveshopping 14%, Zalora 12%, Shopee 9 %, Kaidee (OLX), iTruemart, and others. 7% respectively.

Consumers' decision to shop online in Bangkok after consideration was as

follows: Definitely buy 52%, probably buy 24%, not sure 18%, 5% unlikely, and 1% definitely not, respectively.

2. Important factors affecting consumers' decision to shop through online applications in Bangkok

2.1 Demographic factors affecting purchasing decisions via online application of consumers in Bangkok

Demographic factors were gender, age, education level, occupation and income under the assumption that different demographic factors will differentiate consumers' purchasing decisions via online apps in Bangkok. From the hypothesis testing, it was found that gender, age, educational level and different income had the same decision to buy products through online applications, while different occupations made decisions to buy products online differently at statistically significant at the .05 level as shown in Table 1. The results of the differential test, there was a significant difference $(P < 0.05)$ between students, students and employees of private companies as in Table 2. The students have higher purchasing decisions on average than private company employees. This may be due to the obligations and responsibilities of private company employees are more than students, resulting in having to think before making a purchase decision.

Table 1: The testing results of the demographic factors affecting purchase decision of products via online application of consumers in Bangkok

Demographic Factors	t / F Value	P-value
1. Gender	t = 5.680	.793
2. Age	F = 13.521	.661
3. Education level	F = 9.447	.076
4. Occupation	F = 10.075*	.037
5. Average income per month	F = 14.229	.448

***Statistically significant at level.05

Table 2: Comparison of differences between groups of purchasing decisions of products via online application classified by occupation

Occupation		Mean Difference (I-J)	Std. Error	P-value.
Student	Government officer/State enterprise employee	.2891	.1305	.059
	Private company employee	.3672*	.1133	.027
	Business owner/Butler/ Housewife/Freelance	.2994	.1573	.068
Government officer/State enterprise employee	Student	-.2891	.1305	.059
	Private company employee	.0805	.0995	.437
	Business owner/Butler/ Housewife/Freelance	.0063	.1209	.886
Private company employee	Student	-.3672*	.1133	.027
	Government officer/State enterprise employee	-.0805	.0995	.437
	Business owner/Butler/ Housewife/Freelance	-.0751	.1099	.547
Business owner/Butler/ Housewife/Freelance	Student	-.2994	.1573	.068
	Government officer/State enterprise employee	-.0063	.1209	.886
	Private company employee	.0751	.1099	.547

*Statistically significant at level .05

2.2 Marketing Mix factors influencing the purchasing decision of products via online application of consumers in Bangkok

Consumers in Bangkok paid attention to the factors of the marketing mix that affected the decision to buy products via online applications. Overall, it is at a high level. Place has the highest average ($\overline{X}$ = 3.85, S.D. = 0.74) followed by Promotion ($\overline{X}$ = 3.82, S.D. = 0.7 3), Product ($\overline{X}$ = 3.62, the S.D. = 0. 6 4), Price ($\overline{X}$ = 3.59, S.D. = 0.81) when classified by each aspect.

1. Product: There are more products to choose from than buying through other channels.

2. Price: There are morediscounts than buying through other channels

3. Place: it is more convenient than buying through other channels.

4.Promotion: it gives more discount than buying through other channels.

Table 3: Analysis the marketing mix factors affecting purchasing decision of products via online application of consumers in Bangkok

Marketing Mix Factors	Unstandardized Coefficients		Standardized Coefficients	t	P - value
	B	Std. Error	Beta		
1. Product	-.191	.074	-.181.	-1.673	.234
2. Price	-.183	.071	-.174	-1.767	.189
3. Place	.202	.065	.195	4.512*	.023
4. Promotion	-101	.066	-.097	-1.541	.068
Total	-.161	,067	-.036	0.036	.081

*Statistically significant at level .05

From Table 3, it was found that the marketing mix factors affected the purchasing decision of the online application of consumers in Bangkok. Statistically significant at the .05 level was Place. From the results of the analysis of each variable, the beta coefficient of the regression equation (Beta Coefficient) was obtained, which is a value that represents the relationship between the variables, independent and dependent variables. If any independent variable has a high Beta Coefficient, then that independent variable has a strong effect on the dependent variable. The results of the analysis could be sorted in descending order as follows: factors of Place, Promotion, Price and Product.

2.3 Factors in technology acceptance affecting consumer purchasing decision via online application of consumers in Bangkok

Consumers in Bangkok opinions focusing on technology acceptance: The factors of technology acceptance affecting the decision to buy products via online applications overall were at a high level ($\overline{X}$ = 3.65, S.D.=1.05), when considering each aspect, it was found that the factor of technology acceptance (Technology Acceptance Model: TAM) had the highest mean ($\overline{X}$ = (3.78, S.D. = 1.04) followed by Personalization factor ($\overline{X}$ =3.54, S.D.=1.01), Security and reliability factor had an average of ($\overline{X}$ = 3.36, S.D. = 0.99) at a moderate level.

1. Technology Acceptance Model (TAM): helps consumers to be more convenient.

2. Security factor: can verify identity and can keep the information of buyers.

3. Personalization factors: have channels to contact customers individually, conveniently and quickly, such as online chats, e-mails, or message systems (Inbox).

Table 4: Analysis the Technological Acceptance Factors affecting to purchasing decision of products of consumers in Bangkok

Technological Acceptance Factors	Unstandardized Coefficients		Standardized Coefficients	t	P - value
	B	Std. Error	Beta		
1. Technology Acceptance Model: TAM	.206	.034	.257	2.642*	,015
2. Security and Reliability	.211	.058	.212	3.214*	.023
3. Personalization	-.102	.074	-.144	-1.789	.132
Total	**.092**	**.062**	**.022**	**0.408***	**.037**

*Statistically significant at level .05

From Table 4, it was found that technology acceptance factors affecting shopping online applications decisions. statistically significant at the .05 level were Technology Acceptance Model (TAM), Security and Reliability Factors. From the results of the analysis of each variable, the coefficient of the regression equation (Beta Coefficient) is obtained, which is a value that represents the relationship between the independent variable and the dependent variable. If any independent variable has a high Beta Coefficient, it means that the independent variable has a large impact on the dependent variable. The results of the analysis can be arranged in descending order as follows: Technology Acceptance Model (TAM) factor, Security and Reliability factors and Personalization factor respectively.

Conclusion and discussion

From the research on the important factors affecting consumers' purchasing decisions via online application in Bangkok. The results can be summarized and discussed as follows.

1. Consumer decision-making behavior through online applications in Bangkok

The average use of the app is 1-2 times per month. The most frequently use online application is the Lazada. The average amount of purchases made through online applications is 300–500 Baht. The most popular items to buy online are clothes/apparel. and the level of purchasing decisions online of consumers in Bangkok is at the level of definitely buy.

2. The important factors affecting purchasing decision of products via online application of customers in Bangkok

2.1Demographic factors affecting purchase decision of products via online application of consumers in Bangkok

By testing the hypothesis about the differences in demographic factors by using Independent-Samples t-test and One-Way ANOVA (F-test) with statistical significance at level .05.They are gender, age, education level, occupation, average monthly income. The results showed that demographic factors, i.e. gender, age, education level was no different, while consumers with different occupations made

purchase decision differently. For students, the average purchase decision was higher than those who worked in private companies. This may be due to the obligations and responsibilities of private company employees. There is a need for them to think before making a purchase. The results are consistent with the research by Jidapha. Thanyaratanawanich (2021) on Factors affecting the purchase of products via online applications for consumers in Nonthaburi Province.

2.2 Marketing mix factors affecting purchasing decisions via online applications of Consumers in Bangkok

Marketing mix factors affecting consumers' purchasing decisions via online applications in Bangkok statistically significant level at .05 is Place, and as a result of the analysis of each variable, the beta coefficient is obtained, which is a value that represents the relationship between the independent variable and the dependent variable. If any independent variable has a high Beta Coefficient, then that independent variable has a strong effect on the dependent variable. The results of the analysis can be sorted in descending order as follows: Factors of Place, Promotion, Price and Factor of Product. The results of this research are consistent with the research of Waranya Phopraithong (2013), which has conducted research on Factors affecting the decision to buy clothes online from an online store The results of the research found that Factors affecting the decision to buy clothes online from an online store are the factors of distribution channels and the work of the website affecting the decision to buy from an online store.

2.3 Technological acceptance factors influencing the purchasing decision of products via online application for consumer in Bangkok

Factors in technology adoption affecting online shopping decisions Applications statistically significant at the .05 level were Technology Acceptance Model (TAM), Security and Reliability Factors. (Reliability) from the results of the analysis of each variable will get the coefficient of the regression equation (Beta Coefficient), which is a value that represents the relationship between independent and dependent variables If any independent variable has a high Beta Coefficient, it means that the independent variable has a large impact on the dependent variable. The results of the analysis can be arranged in descending order as follows: Technology Acceptance Model: TAM), the security factor (Security) and the reliability aspect. (Reliability) and personal service factors The results of this research are consistent with the research of Kawarin Laddinan (2014), who conducted a study on The research results revealed that technology acceptance and online consumer behavior affecting e-book purchase decision, technology acceptance and online consumer behavior affecting e-book purchase decision of the Consumers in Bangkok Consumer Electronics in Bangkok" found that the adoption of intent-to-use technology had the greatest impact on consumers' decision to purchase e-books in Bangkok. A study of factors affecting the decision to buy clothes online from an online store Technology acceptance and online consumer behavior affecting e-book purchase decision Technology acceptance and online consumer behavior affecting

e-book purchase decision among consumers in Bangkok It was found that the adoption of intent-to-use technology had the greatest impact on consumers' decision to purchase e-books in Bangkok. A study of factors affecting the decision to buy clothes online from an online store Technology acceptance and online consumer behavior affecting e-book purchase decision Technology acceptance and online consumer behavior affecting e-book purchase decision among consumers in Bangkok It was found that the adoption of intent-to-use technology had the greatest impact on consumers' decision to purchase e-books in Bangkok. A study of factors affecting the decision to buy clothes online from an online store.

In addition, the results of this research are consistent with the research results of Pornchanok Plaboon (2 0 1 5) conducting a study on the acceptance of innovation and technology. use of technology and consumer behavior affecting people's willingness to use financial transactions via PromptPay system of the Thai government found that consumer behavior Emotional motivation affects people's willingness to use financial transactions via PromptPay. This is because the government has proposed an incentive to encourage people to turn to financial transactions via the PromptPay system, namely to reduce the fee for money transfers. Thus, it can stimulate people's interest in applying for membership. Financial transactions via the Thai government's PromptPay system.

Recommendations
1. Recommendations from this research

From this research, the researcher would like to suggest things that would be useful to those involved as follows.

1. If entrepreneurs want to increase sales volume through online applications, they should focus on also the target group is student group more because students / students are a group of professionals who decide to buy products through online applications more than other careers.

2. From the research results Marketing mix factors affecting purchasing decisions via online application. The most important thing is Place factor. Therefore, in order to attract more consumers to shop online through applications. Operators should focus on and should improve the ordering channel via online applications to be more convenient for ordering and can check the order status better than ordering through channels. other way

3. According to the results of the study Factors in technology acceptance affecting to purchasing decisions of products for consumer applications in Bangkok found that technology - Acceptance Model (TAM) factors, security and reliability factors., so entrepreneurs should pay attention to technology acceptance by making purchases through the application, consumers will be more comfortable. Security purchases made through the application with identity can be checked. and reliability. The purchase of goods through the application keeps the information of the purchaser of goods and services very reliably.

4. The result of this research can be use to plan for online marketing strategies.

2. Recommendation for further research

1. Should conduct further research studies Psychological and innovation

adoption factors and Technology that affects consumers' decision to shop through online applications.

2. Should conduct a research study on Important factors affecting food delivery behavior of consumers through the application channel.

3. Should conduct a research study on the behavior of using the Internet of consumers in Bangkok to do financial transactions.

References

Boonchom Srisaard (2017). *Base Research*. Bangkok: Suwiriyasarn Publishing.

Borwornsak Sanokham (2019). Factors influencing the decision to buy products through social networks of Undergraduate students in Bangkok. *Ratchapark Journal Humanities and Social Sciences,13(31).*

Boonmet Wiwattananukul (2564). *Getting to know B2C e-Commerce business.* Bank of Thailand, retrieved from www.bot.or.th/Thai/Statistics/Articles/Doc_Lib_statisticsHorizon/StatHorizon_B2 C_ eCommerce.pdf

Jidapha Thanyaratanawanich (2021). Factors affecting the purchase of goods through online applications of consumers in Nonthabur province. *Journal of Humanities and Social Sciences.* Rajapruek University,7(2).

Kawarin Laiddenan. (2014). *Acceptance of technology and online consumer behavior that affects decide to buy electronic books for consumers in Bangkok.* Thesis, Master's Degree Bangkok University.

Pornchanok Plaboon. (2015). *Acceptance of innovation and technology. use of technology and consumer behavior Resulting in people's intention to use financial transactions via PromptPay system of the Thai government.* Master of Business Administration, Thesis, Bangkok University.

Philip Kotler (2003). *Marketing Maagement (Global ed).* New Jersey: Asimmon &Schuster

Premkamol Hongyon. (2019). *Factors influencing the decision to buy products via online applications. (Lazada) of digital consumers in Bangkok.* Master of Business Administration Siam University

Samart Sitthimanee (2019). *Factors affecting the decision to buy products via online channels: A case study Nan Province and Bangkok.* Thesis, Master of Arts Program (Organizational Administration) Faculty of Liberal Arts Krirk University

Siriwan Sereerat et al. (2009). *Modern Marketing Management,* Update 2009. Bangkok: Publishers. Diamond to Business World.

TCIJ: Thai Civil Rights and Investigative Journalism (2021). www.tcijthai.com/news/2021/19/scoop/11763 Retrieved on 16 August 2021

Waranya Phopraithong. (2013). *Factors affecting the decision to buy clothes from online stores.* Master of Business Administration Program, Faculty of Commerce and Accountancy, Thammasat -University.

Taro Yamanae (1973). *Statistics: An Introductory Analysis.* 3rd ed. New York: Harper and Row Publication.