



EE489 : Seminar in Industrial Economics

**THE IMPACT OF THE BIG CAMPAIGN ON
CONSUMER DECISION MAKING BEHAVIOR**

Presents

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1. Introduction

Naturally, consumer behaviour has always been bound to change over time. The way consumers purchase products is remarkably different from how it was in the past couple years due to the rapid growth of the E-commerce industry and the sharply increasing number of consumers who use interactive media as pre-purchase information searching tools for online shopping (Häubl and Trifts, 2000). Lately, it has become more apparent for the behavior of consumers in the E-commerce market which has undergone tremendous changes, especially in terms of purchasing decisions on online retail platforms. Nowadays, consumer decisions made via online retail platforms are representing a part of digital culture.

Consumer decision-making behaviour is a complex procedure consisting of comparing, evaluating, selecting, as well as purchasing from various options based upon the consumer's opinion over a particular product (*Shaw, 2018*). Generally, during the decision evaluation process, consumers tend to be influenced by environmental factors while also determining alternatives from several economic and psychological factors. Sales promotion tools – including price discount, coupons, buy one get one etc. – are considered as one of the potential psychological strategic moves in the E-commerce industry applied to promote sales and trigger purchase (*Chandra, Mazumdar & Suman, 2018*). And, recently, one of the most popular discount tools that generates a broad impact for global shopping festivals at this moment is the annual 11.11 Singles' Day campaign originating from Alibaba. This campaign has become an event for shoppers, E-commerce merchants, and online retail platforms with sales exceeding all expectations, abating the power of both Black Friday and Cyber Monday in the United States for online purchases (*Hasnan, 2019*). With the presence of leading E-commerce platforms like Lazada and Shopee in Thailand, it comes as no surprise when they adopted this famous shopping festival within their e-marketplaces. After the drastically successful 9.9 campaign from Shopee has shown up, followed by another peak triumph of 11.11 campaign from many online and offline stores, it contributes to the continuous reproduction of these Mega Sales Events which eventually become a new trend of promotional tools for the E-commerce industry in Thailand.

Launching the Big Campaign in which its date and month are the same numbers via online retail application has already become anticipatable for online shoppers in Thailand.

These predictive sales have shaped the consumer decision-making behaviour a lot, for instance, customers would never make any purchase before the Big Campaign arrives but only search for the products that match their preference and add them to cart. If there are any interested brands, they would check for the promotion and collect coupons then wait until the campaign comes. This is because the vast majority of consumers are always seeking for a discount and wait until the last minute for the best deal (*Kapner, 2015*). Furthermore, another characteristic of the campaign is time pressure. Consumers are well aware that the price reduction will be organized in just 24 hours, combined with the strategies of the platforms that will often count down the remaining time of the campaign or show the number of products remaining, causing customers to create 'Fear of Missing Out' (FOMO) instinctively.

Thus, the main objective of this seminar is to study the impacts of launching the predictable monthly Big Campaigns and its frequency on delayed purchase decision-making behaviour of online consumers. ¹

The study's first aim is to explore both characteristics of delay which are wait-for-discount behavior and postpone behavior due to frequency of promotion. Furthermore, the second is to evaluate the level of sensitivity to the Big Campaigns among different groups of consumers. Moreover, it formulates recommendations to online retail platforms in terms of response to the consumers' behaviour.

This study will focus on delayed purchase behaviour of Thai online consumers that occurred from consumers' perception about the monthly Big Campaign (Doubled-Number-Date Campaign) via online retail platforms, eg. Lazada, Shopee, JD Central, Pomelo etc. regardless of other festive sales, seasonal campaigns, or flash sales.

2. Literature review

The overview of the related literature covers two main aspects of delay, which are waiting and postponing. Both of them impact consumer behavioural choices across delay discounting tasks. There is a role of cost of delay in the underlying process of reward (Paglieri F. ,2014). The first aspect, consumers are always waiting for the Double-Digit campaign.

Second, we focus on consumers who always postpone purchasing decisions since the consumers are getting used to the next upcoming monthly Double-digit campaign.

There are three streams of literature which connect to this paper which consists of

- a.waiting-for-discount behavior
- b.products types that is sensitive to sales promotion
- c.effect of promotion frequency on shopping behavior

The first relevant stream of research is the *waiting-for-discount behavior*. In market, Consumer search cost and firm choose pricing strategy that involve commitments which are 1) firm fix single price 2) firm commit to always discount and 3) firm begins with a high (non-discounted) price but commits to discount frequently even if discounting lowers revenue. The third pricing strategy is called discount-frequently strategy (Gérard P. C. and Pnina F. , 2013) However, many consumers have learned to delay purchases, expect that price would decrease, which is called forward-looking behaviour that was shaped by operation management, marketing and economic environment. (Jun L., Nelson G, Serguei N., 2014) such double-digit day campaigns which contain limited time to make decisions. Under a limited time, people use an intertemporal choice to make decisions (Florian L., Julia R., 2017). Time pressure can count as one of causation of delay consumer's decision (Eric G. , Donald L. ,1991)

The second relevant stream of research is *products types that is sensitive to sales promotion*. The sales phenomenon has become more critical for retailers and consumers due to the frequency of periodic sales increasing. (Martin P., 2002) The studies have proven that with some kind of product, consumers are more psychologically attached whereas for some kinds of product consumers behave rationally (Luong and Slegh, 2014). There is a positive Impact of sales promotion on sales volumes, but the impact of sales promotion cannot be the same for different categories of product (Bogomolova et al., 2017; Banerjee, 2009a, 2009b; Fearne et al., 1999). According to the nature of the product, a suitable promotional strategy is required (Kempf, 1999).

The third relevant stream of research is *effect of promotion frequency on shopping behavior*. The sales phenomenon has become more critical for retailers and consumers due to the frequency of periodic sales increasing (Martin P., 2002) More frequent promotions increase their effectiveness, but only in the short run. The frequent use of price promotions makes them a more important component in consumers' motivation to buy from a category, as they are conditioned to look for, and rely on, future promotions (Vincent R., Marnik G., Jan E.M, Dominique M. 2000) which lead to waiting-for-discount behavior,the first related stream of research.

3. Theoretical Framework

3.1 4Ps Marketing Mix theory

Most of the time 4Ps Marketing Mix shown in Figure 1 is used as a strategy for marketing decision-making which comprises Product, Price, Place, Promotion. These are the making tools that are used to partly answer delayed purchase decision behavior.

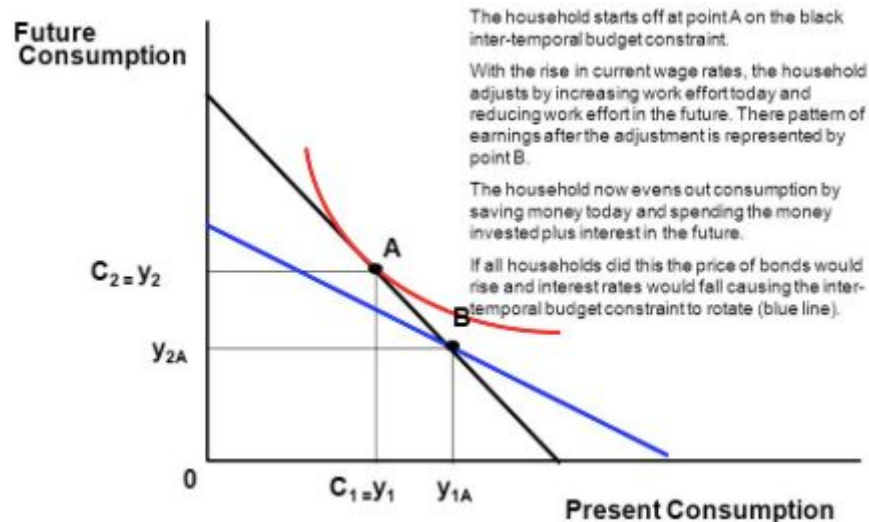
Figure 1		
Category	Definition	Typical Marketing Decision
Product	A product refers to an item that satisfies the consumer's needs or wants which may be tangible or intangible.	Product Category refers to an interested products / normal types that respondents normally buy
Price	- Price refers to the amount a customer pays for a product. - Price also includes considerations of customer perceived value. - Price may also refer to the sacrifice consumers are prepared to make to acquire a product.	Discount Frequently Strategy (begins with a non-discounted price but commits to discount frequently)
Place	Refers to providing customer access	E-commerce platform : Shopee, Lazada, JD central
Promotion	Promotion refers to marketing communication	Promotional Tools : - Free delivery, - Application coupon, - Brand's discount, - Product Category Discount and - Less Frequency of Double-digit Day Campaign.

3.2 Intertemporal Choice

Intertemporal choice is the process by which people make decisions about what and how much to do at various points in time, when choices at one time influence the possibilities available at other points in time. Intertemporal choice refers to decisions, such as spending habits, made in the near-term that can affect future financial opportunities. These choices are influenced by the relative value people assign to two or more payoffs at different points in time. Most choices require decision-makers to trade off costs and benefits at different points in time.

Applied to this study, this theory describes how an individual's current decisions affect what options become available in the future. The consumers are required to trade off between the current consumption with higher cost but receive the goods right away and the future consumption with less cost from discounts and promotions but need to wait longer for the products.

Figure 2: Intertemporal Choice of Consumption



4. Methodology

We develop three groups of hypotheses. The first group relates to the short-term and direct effects of price promotions on the purchase incidence and revenue of promoted products. The second group relates to the long-term effects of price promotions on customers' engagement on a platform after the promotion period. The last group of hypotheses considers how price promotions alter strategic customer behavior in the long run. For the second and third groups of hypotheses, we also examine the spillover effects of price promotions to retailers that have not offered promotions to customers.

- **Surveyed Method**

For the significant part of our primary sources, the surveyed method using questionnaires would be conducted in order to get the regular and non-regular online shopper's opinions in Thailand for 500 respondents. The questionnaires will be processed through physical handling and via online form. The answers would be obtained through closed-ended

questions with multiple choice answer options then would be analyzed using quantitative methods later.

- **Objective**

To study the impacts of launching the predictable monthly Double-Digit Day Campaigns and its frequency on delayed purchase decision behavior

- **Sampling**

Our targeted population consists of Thai consumers on online platforms with an expected total of 500 respondents from online shoppers. The study would adopt the convenience sampling as non-probability sampling, which means the sampling group members are chosen in a non-random manner. Therefore each population member has a chance to participate in the study by opening for the participants based on their convenience with no requirements.

- **Approaching Questions**

The questions would be conducted by an online shopper's opinion. We would carry out the same questionnaires to every group of consumers which would be mainly about their consumption behaviour and the factors that affect the delayed decision behaviour. The questions involve demographic factors, shopping behavior, product categories preference and promotional tools.

- **Observation**

After collecting data from the surveys, a descriptive analysis would be used as a data analysis approach of the price sensitivity to draw a conclusion which customer group of the respondent has the highest sensitivity in the first place and to help determine spillover effect. And then, quantitative analysis will seek to identify the implementation pricing and promotion to the E-commerce industry.

Table 1 : The Variable Definition

Factor	Variable	Definition
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Depandent Variable		
Waiting Decision	Y_p	Have you ever waited for the Double-Digit Day Campaign, when you've already known what to buy? (Waiting = 1, Not Waiting = 0)
Independent Variables		
1. Demographic factors (D_i)	Gender	Male = 0, Female = 1, Alternative gender = 2
	Age	Age of the respondents (Less than 20 years old = 0, 20-25 years old = 1, 26-30 years old = 2, 31-35 years old = 3, 36-40 = 4, 41-45 = 5, More than 45 years old = 6)
	Income	Income of respondents (Less than 15,000 = 0, 15,001 - 30,000 = 1, 30,001 - 45,000 = 2, 45,001 - 60,000 = 3, 60,001 - 75,000 = 4, more than 75,000 = 5)
	Student	Occupation of respondents The respondents is student (Yes = 1, No = 0)
	Private Employees	Occupation of respondents The respondents is Private employees (Yes = 1, No = 0)
	Government Officer/State enterprise	Occupation of respondents The respondents is Government Officer/ State enterprise (Yes = 1, No = 0)
	Business Owner	Occupation of respondents The respondents is Business owner (Yes = 1, No = 0)
	Wifehouse	Occupation of respondents The respondents is Wifehouse (Yes = 1, No = 0)
	Freelance	Occupation of respondents The respondents is Freelance (Yes = 1, No = 0)
	Unemployed	Occupation of respondents The respondents is Freelance (Yes = 1, No = 0)
	Etc.	Occupation of respondents The respondents is et cetera (If Yes = 1, No = 0)
2.1 Shopping behavior (S_i)	OnceYr	Respondent's shopping frequency through online platform is around 1 - 2 times a year (Yes = 1, No = 0)

	ThreeYr	Respondent's shopping frequency through online platform is around 3 - 6 times a year (Yes = 1, No = 0)
	OnceMt	Respondent's shopping frequency through online platform is around 1 - 2 times a month (Yes = 1, No = 0)
	OnceWk	Respondent's shopping frequency through online platform is around 1 - 2 times a week (Yes = 1, No = 0)
	ThreeWk	Respondent's shopping frequency through online platform is around 3 - 6 times a week (Yes = 1, No = 0)
	Everyday	Respondent's shopping frequency through online platform Everyday (Yes = 1, No = 0)
	SpendAmt	The average spending of respondents (Less than 500 Baht = 0, 501 - 1,000 Baht = 1, 1,001 - 3,000 Baht = 2, 3,001 - 5,000 Baht = 3, 5,001 - 7,000 Baht = 4, 7,001 - 10,000 Baht = 5, 10,001 - 20,000 Baht = 6, more than 20,000baht = 7)
3. Product categories preference (C _i)	IT	Respondent is interested in/ normally buy IT product through online platform (Yes = 1, No = 0)
	Gadgets	Respondent is interested in/ normally buy gadgets product through online platform (Yes = 1, No = 0)
	Electric	Respondent is interested in/ normally buy electric product through online platform (Yes = 1, No = 0)
	Furniture	Respondent is interested in/ normally buy furniture product through online platform (Yes = 1, No = 0)
	Homedec	Respondent is interested in/ normally buy Home decoration product through online platform (Yes = 1, No = 0)
	Clean	Respondent is interested in/ normally buy cleansing house product through online platform (Yes = 1, No = 0)
	Beauty	Respondent is interested in/ normally buy beauty product through online platform (Yes = 1, No = 0)

	Personalcare	Respondent is interested in/ normally buy personal care product through online platform (Yes = 1, No = 0)
	Vitamin	Respondent is interested in/ normally buy vitamin product through online platform (Yes = 1, No = 0)
	Kids	Respondent is interested in/ normally buy kids product through online platform (Yes = 1, No = 0)
	Pets	Respondent is interested in/ normally buy pets product through online platform (Yes = 1, No = 0)
	Fashion	Respondent is interested in/ normally buy fashion product through online platform (Yes = 1, No = 0)
	FoodnBev	Respondent is interested in/ normally buy food and beverage product through online platform (Yes = 1, No = 0)
	Stationary	Respondent is interested in/ normally buy stationary product through online platform (Yes = 1, No = 0)
	Toys	Respondent is interested in/ normally buy toys product through online platform (Yes = 1, No = 0)
	Books	Respondent is interested in/ normally buy IT product through online platform (Yes = 1, No = 0)
	Music	Respondent is interested in/ normally buy music instruments product through online platform (Yes = 1, No = 0)
	Sports	Respondent is interested in/ normally buy IT product through online platform (Yes = 1, No = 0)
	Travel	Respondent is interested in/ normally buy IT product through online platform (Yes = 1, No = 0)
	Automobile	Respondent is interested in/ normally buy IT product through online platform (Yes = 1, No = 0)
4.Promotion tools influence waiting	DeliveryPromotion	Delivery promotion can influence the customer to wait until the Double- digit day campaign (Mostly disagree = 0, Disagree = 1,

behavior (score) (P _i)		neutral = 2, Agree = 3, Mostly agree = 4)
	AppCoupon	“I think that application coupons can influence me to wait until the Double- digit day campaign” Opinion (Mostly disagree = 0, Disagree = 1, neutral = 2, Agree = 3, Mostly agree = 4)
	BrandsDiscount	“I think that brands discount can influence me to wait until the Double- digit day campaign” Opinion (Mostly disagree = 0, Disagree = 1, neutral = 2, Agree = 3, Mostly agree = 4)
	ProductsCategory	“I think it depends on products that can influence me to wait until the Double- digit day campaign” Opinion (Mostly disagree = 0, Disagree = 1, neutral = 2, Agree = 3, Mostly agree = 4)
	LessFrq	“I think that the frequency of promotion day can influence me to wait until the Double- digit day campaign” Opinion (Mostly disagree = 0, Disagree = 1, neutral = 2, Agree = 3, Mostly agree = 4)

- **Statistical treatment**

After collecting the data from all respondents, the data needed to be transformed into numerical form to be able to analyse using the STATA program. This numerical form is shown in Table1., and we have too many variables in the regression model therefore, it will make the prediction of result worse because of the redundancy of data. Thus, we group related variables into 4 types to simplify the model. There are 4 groups categories of independent variables which are demographic factors, shopping behaviors, categories preference and the promotional tools.

The demographic factors will then be determined by demographic information, which are Gender, Age, Income and occupation.

The Shopping behavior factors will then be determined by shopping frequency through online retail platforms and the average spending amount for online shopping during the normal period.

The Categories preference factors will then be determined by the particular product category they buy through an online retail platform.

The promotional tools factors will then be determined by the average opinion score level in promotion tools which are delivery promotion, application coupon, brand's discount, product category discount and less frequency of Double-digit Campaign.

We used Ordered Probit Regression due to the categories for the dependent variable, which is the decision made by individuals before the Double-Digit day campaign comes. Since the focus is on the behavior and decision to wait for the Double-Digit Day campaign of online shoppers, the most important decision is whether to wait for the campaign and discount or not. Coded as 0 and 1, the dependent variable is binary.

- **Model Specification**

$$\Pr(Y=p) = D_{pi} \beta_p^* + S_{pi} \delta_p^* + C_{pi} \eta_p^* + P_{pi} \kappa_p^* + \varepsilon_i$$

$$; i = 1, \dots, 500, p = 0, 1$$

Where:

- $\Pr(Y = p)$ is the probability of a consumer shopping through an online platform, where $p=0$ when respondents don't wait, $p=1$ when respondents are waiting to shop on the campaign.
- D_{pi} is the demographic factor that consists of gender, age, income, occupation. Some components of the demographic variables can be captured by dummy variables. Occupation is controlled as a dummy variable. For gender variables, the female respondent is coded as 1 and 0 if otherwise.
- S_{pi} is the shopping behavior that consists of online shopping frequency and spending amount. For an online shopping frequency is controlled as a dummy variable.
- C_{pi} is the category preference which we categorise into 20 types of product and also controlled by as a dummy variable.
- P_{pi} is the promotional tool. All these factors are considered to be ordinal variables rated by five Likert-type scales, thus for the simplicity, we categorize the answers into five levels: 0 = mostly disagree, 1= disagree, 2 = neutral, 3 = agree, and 4 = mostly agree.
- $\beta_p^*, \delta_p^*, \eta_p^*, \kappa_p^*$ are the difference probability of each variable affecting customer online shopping behavior.

→ ε_i is an error term.

Once the data is collected, the statistical treatment such as cleaning of the data, selection of the models used and running the models are discussed under the last part.

5. Finding and Analyzing Results

After the data was collected, the dependent variable is summarized in terms of percent frequency shown in Table 2. The survey found that around half of the respondents or 51.6% of the online consumers have ever waited for the Double-Digit Day campaign although they have already known what to buy while the other 48.4% have not. Illustrated by Figure 3, Shopee is represented as the most popular platform among the consumers, with up to 80% of respondents who have been waiting for a campaign day from Shopee while 55% of consumers revealed that they usually make a purchase via Lazada during the campaign period and JD Central is used by 11.8% of shoppers.

Then, Table 3 presents the mean value of each independent variable including their descriptive statistics of 500 observations in which the definition of each variable was previously explained in the Methodology section. The results indicate that the majority of the gender ratio for online shoppers in online retail platforms is women which is divided into 66.2% of females and 33% of males while the alternative gender is represented only 0.008% from the survey. Furthermore, 179 out of 252 respondents have an income range

Figure 3

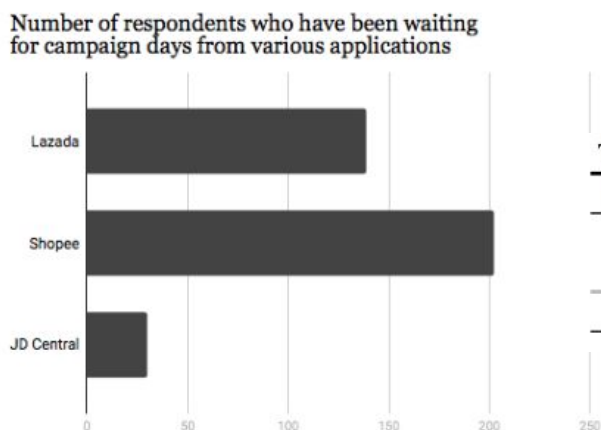


Table 2: Descriptive Statistics of dependent Variable

Dependent Variable	Coding	Freq.	Percentage (%)
WAIT (Yp)	0	242	48.4
	1	258	51.6
Total		500	100

Table 3: Descriptive Statistics of Independent Variables

Independent Variables	Variables Title	Mean	Std. Dev.	Min	Max
Demographic factors (Di)	Gender	0.678	0.485	0	2
	Age	1.896	1.726	0	6
	Income	1.542	1.661	0	5
	Student	0.52	0.5	0	1
	PriComp	0.218	0.412	0	1
	GovtOfficer	0.07	0.255	0	1
	BusOwner	0.11	0.313	0	1
	Wifehouse	0.028	0.165	0	1
	Freelance	0.034	0.181	0	1
	Unemp.	0.016	0.126	0	1
	Etc.	0.004	0.063	0	1
Shopping behavior (Si)	OnceYr	0.02	0.14	0	1
	ThreeYr	0.042	0.201	0	1
	OnceMt	0.18	0.385	0	1
	OnceWk	0.472	0.5	0	1
	ThreeWk	0.208	406	0	1
	Everyday	0.076	0.265	0	1
	SpendAmt	1.512	1.2	0	7
Categories preference (Ci)	IT	0.154	0.361	0	1
	Gadgets	0.328	0.47	0	1
	Electric	0.172	0.378	0	1
	Furniture	0.05	0.196	0	1
	Homedec	0.28	0.449	0	1
	Clean	0.144	0.351	0	1
	Beauty	0.396	0.49	0	1
	Personalcare	0.462	0.499	0	1
	Vitamin	0.13	0.337	0	1
	Kids	0.018	0.133	0	1
	Pets	0.1	0.3	0	1
	Fashion	0.408	0.492	0	1
	FoodnBev	0.186	0.389	0	1
	Stationary	0.102	0.303	0	1
	Toys	0.098	0.298	0	1
	Books	0.088	0.284	0	1
	Music	0.024	0.153	0	1
	Sports	0.1	0.3	0	1
	Travel	0.086	0.281	0	1
	Automobile	0.024	0.153	0	1
Promotion Tools Influence Waiting Behavior (score) (Pi)	DeliveryPro	3.1	1.276	0	4
	AppCoupon	2.862	1.458	0	4
	BrandsDiscount	3.282	1.09	0	4
	ProductsCate	2.842	1.407	0	4
	LessFrq	2.416	1.615	0	4

below 15,000 Baht. While, with a similar proportion, 167 observations earn 15,001-30,000 Baht per month which implies that the most of the respondents are in the middle income group. The respondents mainly, 51.8%, are students while the rest comprise about 22.3% are private company employees, 10.8% are business owners, 6.8% are Government and State enterprises officers, and the 8.2% are counted as the other occupations. (see Appendix B for more demographic survey results).

For inferential analysis of the specification model is shown in Table 4, it presents the marginal effects with robust standard deviation in the parentheses of the ordered probit estimation for four sets of our independent variables regarding the waiting decision for Double-Digit Day campaign by individuals. According to the result, we have computed the marginal effects to explain how each unit increase in the independent variables increases or decreases the probability of consumers deciding to wait for a discount on the Double-Digit Day campaign. We can now present the findings which would be separated into two parts in response to our objective we have mentioned earlier.

Starting with the first part, waiting behavior. Table 4 presented below is the result of ordered Probit and Marginal effects results of our model. Probit result of this model in demographic factors indicates that income variable significantly affects consumers waiting decision at 1% level of significance, while housewife variable is significant at 5%. The result implies that income negatively affects the probability of waiting. This suggests that the higher income the lower the probability that an individual will wait for the campaign. This makes its sense because with high income, the consumer will prefer to purchase right away rather than wait for a discount due to their high purchasing power. Also, wifehouses have more probability than other occupations to delay their consumption and wait for the campaign even though they have known what to buy. However, other demographic factors like gender and age are not significant in this model.

For shopping behavior variables, probit results point that shopping frequency at once a week variable and spending amount variable affect prob of waiting decision at 1% level of significance. The result implies that the consumers group who purchase online at the average once a week has a higher probability of waiting. An increase in spending amount positively changes the probability of waiting as well.

Table 4: Specification using probit estimation (We will create an appropriate table later)

Marginal effects after probit
 $y = \text{Pr}(\text{wait}) (\text{predict})$
 $= .53170926$

variable	dy/dx	Std. Err.	z	P> z	[	95% C.I.	]	X
sex	-.0521177	.06903	-0.76	0.450	-.187414	.083178	.686	
age	-.0384325	.02562	-1.50	0.134	-.088649	.011784	1.896	
income	-.0850192	.03033	-2.80	0.005	-.144467	-.025571	1.542	
student*	.0477816	.44851	0.11	0.915	-.83128	.926843	.52	
privcomp*	.2073435	.41195	0.50	0.615	-.600057	1.01474	.218	
govtofr	-.1382361	.46164	-0.30	0.765	-1.04304	.76657	.072	
busowner*	-.0105952	.46405	-0.02	0.982	-.920123	.898933	.11	
wifeho~e*	.4412863	.17898	2.47	0.014	.090495	.792077	.028	
freela~e*	.30772	.31555	0.98	0.329	-.310739	.926179	.034	
unemp*	.0693938	.48554	0.14	0.886	-.882238	1.02103	.016	
etc*	-.1285366	.56571	-0.23	0.820	-1.23731	.980233	.004	
onceyr*	.5210072	1.50195	0.35	0.729	-2.42277	3.46478	.02	
threeyr*	.5794313	2.94784	0.20	0.844	-5.19822	6.35709	.042	
oncent*	.8788287	6.28067	0.14	0.889	-11.4311	13.1887	.18	
oncewk*	.99935	.19126	5.23	0.000	.624483	1.37422	.472	
threewk*	.8928167	6.64048	0.13	0.893	-12.1223	13.9079	.208	
everyday*	.6625668	4.88254	0.14	0.892	-8.90703	10.2322	.076	
spendant	.3528077	.03655	9.65	0.000	.281161	.424454	1.512	
it*	.0530373	.0815	0.65	0.515	-.106703	.212778	.154	
gadgets*	.0535152	.06452	0.83	0.407	-.072946	.179976	.328	
electric*	.0164303	.08341	0.20	0.844	-.147049	.17991	.172	
furnit~e*	-.1220815	.1659	-0.74	0.462	-.447242	.203079	.04	
homedec*	-.0550644	.06732	-0.82	0.413	-.187015	.076886	.28	
clean*	.0612604	.08665	0.71	0.480	-.108573	.231094	.144	
beauty*	.0564934	.06807	0.83	0.407	-.07693	.189917	.396	
person~e*	.087918	.06035	1.46	0.145	-.030375	.206211	.462	
vitamin*	.1308062	.09491	1.38	0.168	-.055207	.31682	.13	
kids*	-.0891819	.29975	-0.30	0.766	-.676674	.498311	.018	
pets*	-.1680139	.09779	-1.72	0.086	-.359686	.023658	.1	
fashion*	-.0193838	.06549	-0.30	0.767	-.147748	.10898	.408	
foodnbv*	.0035199	.07971	0.04	0.965	-.152718	.159758	.186	
statio~y*	.0602427	.09649	0.62	0.532	-.128869	.249355	.102	
toys*	-.0409975	.09545	-0.43	0.668	-.22808	.146085	.098	
books*	-.0466878	.10812	-0.43	0.666	-.258599	.165223	.088	
music*	-.1538101	.20049	-0.77	0.443	-.546762	.239142	.024	
sports*	.0174791	.11259	0.16	0.877	-.203187	.238145	.1	
travel*	.1243353	.11434	1.09	0.277	-.099766	.348437	.086	
automo~e*	.0017244	.2102	0.01	0.993	-.410263	.413712	.024	
delive~n	.0586332	.02606	2.25	0.024	.007554	.109713	3.1	
appcou~n	.0812065	.02435	3.34	0.001	.033486	.128927	2.862	
brands~t	.0128042	.03202	0.40	0.689	-.049953	.075561	3.282	
produc~e	-.0214179	.02191	-0.98	0.328	-.064355	.021519	2.842	
lessfrq	.0453066	.01989	2.28	0.023	.006633	.084283	2.416	

(*) dy/dx is for discrete change of dummy variable from 0 to 1

Moving to the third group of variables, the probit regression result shows no significance in the product category they normally buy. This implies that product categories that the consumers are interested in or normally purchase via e-commerce platforms have no effect on their waiting decisions.

In addition, for the promotional tools variables, delivery promotions and less frequent variables significantly affects consumers' waiting decisions at 5% level of significance, while coupon from application variable is significant at 1%. The result suggests that online shoppers mainly take into consideration the delivery promotion and coupon from applications received from using online retail platforms when considering whether it's worth waiting or not. And less frequency also increases the tendency choosing to wait.

Figure 4

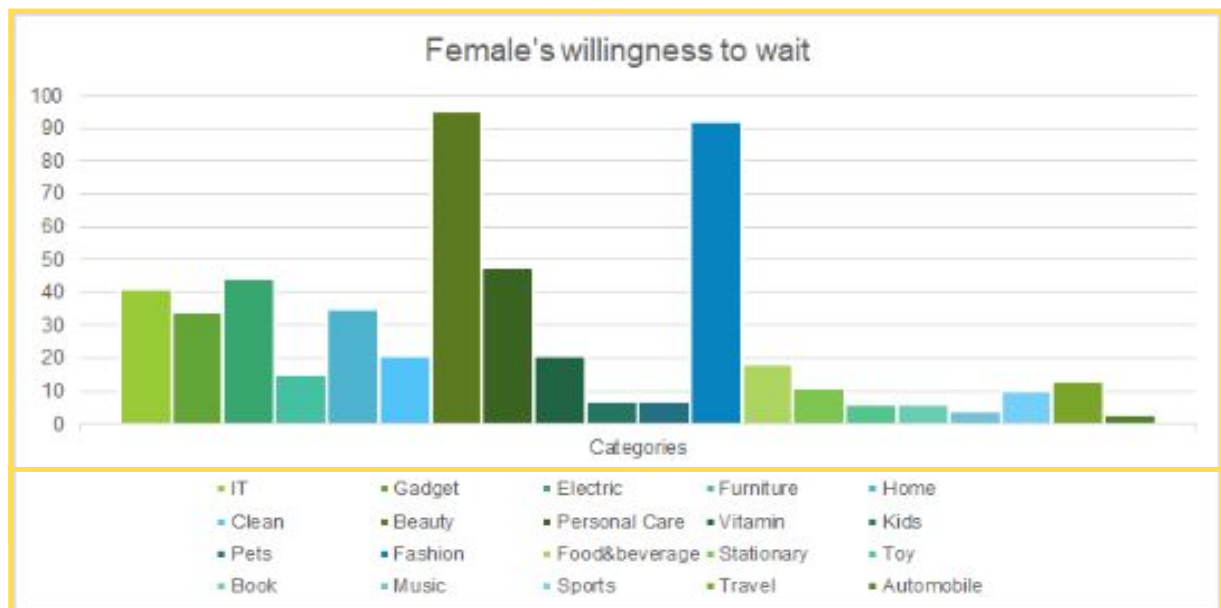
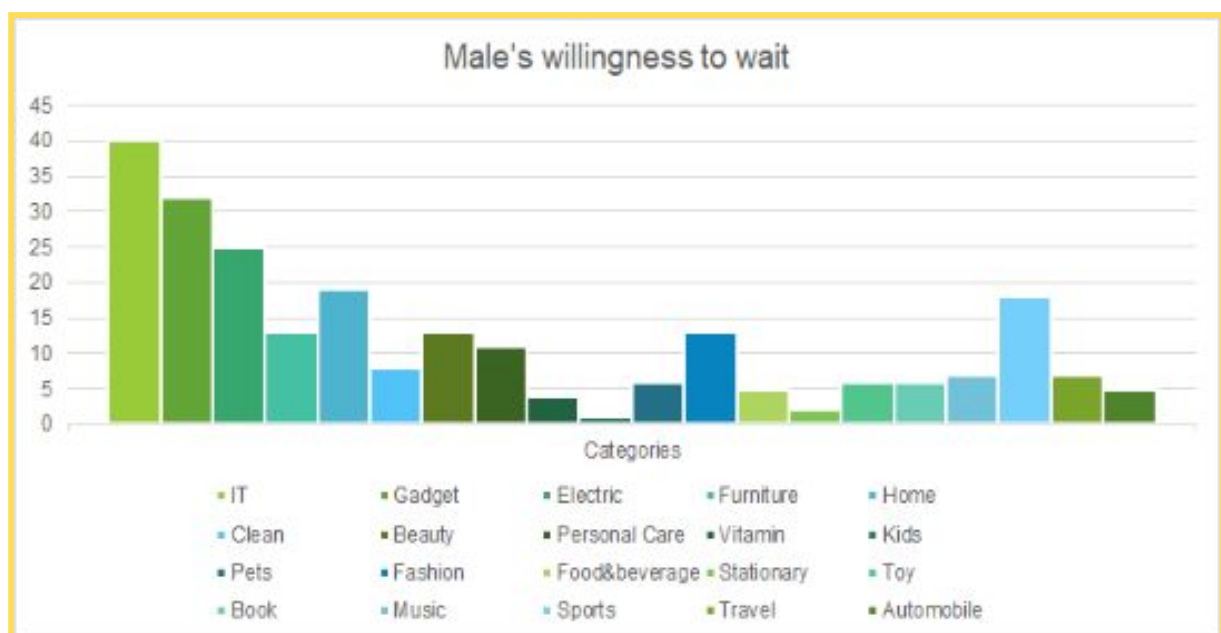


Figure 5



To specify more, when we consider each gender's waiting preference, the descriptive statistic demonstrates that 53.47% of female respondents have ever waited for the Double-Digit Day Campaign (see Appendix B for more survey results). Due to their answers, the product categories that match with their willingness to wait are represented as beauty & cosmetic, fashion, and personal care products respectively for their top three as demonstrated by Figure 4. While automobile products are the category they have the lowest tendency to wait until the campaign day. Moving to males, the information in Figure 5 illustrates that 49.09% of male respondents have ever waited for Campaign in which the percentage is close to female. But in contrast, the bar graph can show that the product categories that match with their willingness to wait are expressed as IT products, gadgets, and electric appliances respectively for their top three preferences. Whereas baby & kids products come with their lowest tendency to waiting for the campaign day.

Table 5: Correlation between Next-Month Expectation pf campaign, Tendency to postpone consumption in this month campaign day to next month campaign day, and Tendency to spend less for this month campaign. (We will create appropriate table later)

	nextmonthe~n	tendstopos~e	lessspendant
nextmonthe~n	1.0000		
tendstopos~e	0.7021	1.0000	
lessspendant	0.4416	0.4706	1.0000

Then, talking about the second part, postpone behavior. According to the data from 500 observations it presents that 80.6% Of respondents believe that the Double-Digit Day Campaign would be held continuously in the coming months. Considering the correlation run from stata, we found that the expectation towards the next month campaign has positive correlation with the tendency to postpone decision. To illustrate more, the model explains 70% of positive relationships that the one who expects the double-digit day campaign next month tends to postpone their purchasing to the next next time. It also explains 44% of positive correlation that the one who believes the campaign would be held continuously will spend less each time.

6. Conclusion and suggestions

From the analysis of the result, the research found that income, wifehouse, once a week frequency of shopping, spending amount, and promotional tools like delivery discount, application coupon, and less frequency of campaign are significant factors affecting consumers' decision to delay their consumption. However, the product categories that the consumers are interested in have no significant influence on their waiting decisions to the campaign day and also the rest variables.

The authors understand that these monthly promotions and campaigns even contribute to waiting and postpone behaviors but the platforms launch this campaign for the purpose of boosting sales and hitting targets, while also aiming to collect big data from these opportunities. Therefore, we have drawn some suggestions towards operating the Double-Digit Day campaigns.

According to the promotional tools influence, Launching delivery promotion and coupons from applications could attract consumers to join campaigns. While advertising through social media is a vital tool in this digital era, Increase campaign engagement by advertising to the right target options with the right product categories that match their waiting behavior. Moreover, reducing the frequency of the Double-Digit Day campaigns by not setting up every month, might help the platforms gain more consumers and increase spending amount in each time of the campaigns. While it could also reduce the effect of consumer postpone behavior. Also, this would be beneficial when part of the campaign purpose is to gather the Big data from a large number of users during the campaign days.

7. Limitations

This paper has faced limitations and constraints like other research. Due to the current situation of COVID-19, consumption behavior would be definitely and directly affected. The frequency the online shoppers purchase, the product types they are interested in, or the spending amount might change which can lead to inexact results. Furthermore, due to the time constraint, the size of 500 respondents is considered small in comparison to the total number of online retail platform users in Thailand. Most of the respondents mostly are students and people aged around 20-30yrs old. This small sample size might create an inaccurate assessment and interpretations.

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