



The Impact of Covid-19 on Consumer's Behavior in Buying Lottery Tickets in Thailand

Naphat Khanutwong, Nattawut Sathaphorn, Tunnakorn Sermvilasakul and Amporn Puapradit*

International College, Rangsit University, Pathum Thani, Thailand

*Corresponding author, E-mail: amporn.p@rsu.ac.th

Abstract

The purpose of this research is to investigate and study consumer behavior regarding participation in government-regulated lottery systems before and during the Covid-19. The behavior and decision-making of the participants can be used to imply and identify the problem whether consumers participate in purchasing lottery more or less before and during the pandemic. In order to accomplish the objective, the research is conducted through collecting primary data by providing questionnaire/survey for the 200 participants. This research is quantitative research where the information of consumer behavior is used as an analytical framework in relation to the research paper to help explore and clarify the results. The information based on the questionnaire answered by the participants was used to analyze the research question and hypothesis. Moreover, the use of an analysis program called SPSS was utilized to find the standard deviation to further use in comparison with the hypothesis. The findings show that due to a reduction in wages and layoff of workers caused by the pandemic, the consumers were less likely to buy more lottery tickets during the Covid-19 in order to conserve their money and net worth for necessities. Furthermore, adding to the factors that age and income of the individual play a massive role in having an effect on the consumer behavior and decision making. Younger generations are often seen as unpopular and an outdated way to make money. But the purchasing of lottery tickets for the older generations is seen as a norm; due to the release of lottery in their time. To further add more, the purchasing behavior of the consumers depends on the surrounding environment and the culture they are brought up in. Hence, the hypothesis stated was aligned with the research results, as during the pandemic, people tended to purchase fewer lottery tickets in order to save money.

Keywords: Lottery Tickets, Thailand, Gambling, Investing, Covid-19

1. Introduction

This digital world society is on the move for further improvement for people to become a better person or to achieve something that they desire. People find new ways to become rich and famous by becoming better at their jobs or rising in fame. Given those facts, however, people want the easy way out and the purchasing of lottery tickets is a way for people to achieve that goal. This research is an analysis based on the purchase of lottery tickets before and during the Covid -19. Moreover, the research focuses on the behavior of how prior to and during the Covid -19 affects the decision making of an individual when purchasing a lottery ticket in Bangkok, Thailand.

In Bangkok, the Thai lottery system was established in the year 1832. However, during that time there was an economic depression in Thailand. This was due to Thai people not wanting to spend money and circulate the liquidity in the economy. In order to solve the problem, the government produced a form of legal gambling for Thai citizens to spend their money. At first, this type of gambling was commonly played in the Chinese community, which was called "Huay Huai," which is translated into "flower community." The reason for such naming was because the first lottery ticket was a picture of a flower. But the name was changed to someone who was famous at that time. The rules of this gambling system were that there will be a tag of 34 famous people's names and people have to bet on the names that they think will be raffled up. If the participant guesses correctly the payment ratio will be 30 to 1. After the popularity of the gambling game, the development of lottery tickets were translated into Thai. The Lottery tickets were comprised of 36 characters of the Thai alphabet. However, this form of gambling did not have an agreed upon date. Then in the year 1932, the government settled on a date where the lottery would begin. After that, in the year 1939 the development of an official government lottery office was established. Later in years, the lottery tickets were redesigned from using alphabetic characters to using numbers (Plainoi, 1979).



At present, there are 2 lottery draws per month: on the 1st and the 16th. Each lottery ticket will cost the consumer 80 Baht, and there are a wide range of prizes for winning the lottery. The biggest prize a person can win is first prize, where all of the numbers on the ticket have the same as the winning ticket. That individual can win a prize of 6 million baht per lottery ticket. Individuals can also have the chance to win second, third and fourth prize. However, most Thai people look for prizes according to the first 3 digits, last 3 digits and last 2 digits. The last 2 digits is the most common prize that Thai people looking for. Furthermore, gambling on lottery tickets has been a norm in Thai society, where the purchasing of lottery tickets is legal and supported by the Government Lottery Office. According to gambling statistics in 2020 Thai people tended to be gambling more and have become addicted to it. The Gambling Problem Study Center from Chulalongkorn University estimated that Thai people above the age of 15 have seen a significant increase in the numbers of gamblers from 2017 to 2019 with a 5.2% increase. The most popular gambling in 2019 was the government lottery which had an estimated 22.7 million people who purchased lottery tickets, and second was the illegal underground lottery which had an estimated 17.7 million people purchasing lottery tickets. (Chiangkul, 2021). Even though it is illegal in Thailand, it is still the second most popular with 3 out of 4 people that gamble on the underground lottery also gamble on the government lottery. It is a commonly held belief that this is not gambling, rather a legal thing the government allows. As for the third and fourth most popular form of gambling is card gambling and football gambling, respectively.

A Google Form was made with various questions for participants to answer. The form asked the following questions: age, monthly income, how often do they purchase a lottery ticket before and during the Covid -19, how many lottery tickets did they purchase per lottery draw before and during the Covid -19, the prize they are aiming for, did Covid-19 affect the quantity of lottery tickets bought, did Covid-19 affect the decision-making of buying lottery tickets, did Covid-19 make it harder for them to purchase lottery tickets during the pandemic, where did they purchase the lottery tickets from before and during the Covid -19, did they buy lottery tickets online more than they used to during the Covid -19, how long have they been purchasing lottery tickets, and lastly when the pandemic is over are they still going to purchase lottery tickets as usual. There were approximately 200 participants who completed the Google Form. The form answer was used to analyze a program called SPSS. In order to find standard deviation of the decision-making of purchasing lottery tickets before and during the Covid -19 and is compared to find the difference of each factor. Onwards, the data was used to compare and contrast with our hypothesis.

The researchers' hypothesis is during the current pandemic, wages have decreased and the need for jobs has increased because companies have had job layoffs in order to keep companies running. So, people have lost their job and income and have to manage their money better to survive through this rough situation. Throughout this process, people were willing to gamble their chances in potentially earning money through buying more lottery tickets. But there were other factors such as age, gender and income that affected the decision-making process in purchasing lottery tickets.

Literature Review

Ariyabuddhiphongs (2011) summed up the characteristics of lottery buyers who tend to be a group with low socioeconomic status and they are related to a society where lottery tickets are bought regularly. The number of people who buy will decrease, which may be from the interest in investing in other types of ventures. Due to the increasing age factor, the number of people buying government lottery tickets will decrease and he didn't regard the government lottery as gambling, but instead envisions the government lottery system meeting the expectations of consumers and enable consumers to have a better life. Boonlab & Pasitpakakul (2019) showed that gambling in Thailand is illegal but many people ignore this. It is typical for Thai's to play the lottery game as "Hoi". Phimchai (2017) asserted that the sample group of lottery buyers held the belief that consumers wanted money by having faith in winning the prize and buying government lottery would not affect the financial status of themselves or their family as buying only 1-5 times a month spending 100-500baht/month in other forms of gambling, which is illegal. By comparing the purchase of government lottery tickets with the income range of the sample group when income is more,



people will tend to buy more lottery tickets. Until the income is more than 20,000-30,000baht/month, the number of purchasers will decrease, which is the reason for the interest in investing in other types of investments or due to increasing age factor so the number of purchasers will decrease too. For the sample group of people who did not purchase the government lottery reasoned that they are not interested in or did not like to gamble, which is not worthwhile and buying lottery tickets has an impact on the financial condition of themselves or their family and has a low chance of winning. The group that did not purchase lottery tickets will saving their money in banks.

Lapthananon et al. (2011) investigated the Theory of Gambling Behavior with the result that Thai societies should admit that gambling is the thing that lives with them for a long time and also starts various crimes such as theft, assault, drug dealing and more but still the society lets sponsors or supporters of gambling businesses continue as it was a right thing for example online advertisements, sports gambling and others which make Thai people still have gambling surround them with a thought that was an easy way to get rich. Not only in adults but this also affects teenagers and children so seniors should point out the way and introduce measures to fix this problem, control and reduce the effect of gambling on Thai society especially when teenagers have access to this kind of behavior.

Wongsena (2020) who is associated with the Behavior in Buying Government Lottery of Merchants in Ubon Ratchathani Province concludes that lottery ticket consumer behavior is at a medium rate in order to affect consumers in regard to hope, expectation, motivation and economic factors. Furthermore, it discussed issues such as hope or expectation while they wanted their family to be wealthy by buying lottery tickets, while some wanted to have risks with their faith so the decision they made before buying lottery tickets is mainly the confidence in purchasing, as it makes them rich fast and wanted their family to be wealthy. On the motivation factor, their behavior on purchasing government lottery tickets was for excitement in life, as purchasing from their fortune, or purchasing them in order to help out the seller, purchasing due to a special event or a lucky day. Lastly on the economic factor, their normal behavior could be discussed: they think it is a short cut to be a millionaire, and purchasing because it was one of the ways to make money during the hard time and purchasing because it was a low investment with a high return. The results showed that in the economic situation of the family, citizens have power on the decision to buy government lottery tickets. People have their opinions on the decision to buy government lottery at every level less than average to buy government lottery tickets because it costs less and buying government lottery tickets because they want to get rich. Family members also influence decisions to buy government lottery tickets because the income is not enough to meet their expenses.

2. Objectives

The objective of this research is to analyze and study consumer's behavior on purchasing lottery tickets before and during the Covid-19 pandemic situation. Whereas the purpose of the research is to indicate whether the condition of the pandemic before or during the pandemic affects the buying behavior of consumers purchasing lottery tickets or the frequency of purchasing. Moreover, the objective aims to gather information on wheather indicators in which the amount of people purchasing lottery tickets affects the tax income made by the government. If more people purchase lottery tickets, then the government will get a lot of tax income, where it may be used in the development of the economy, but if less people purchase lottery tickets, then the government would gain less tax income for economic development. The other indicator the research focuses on is whether people are willing to find other form of income or not during and before the pandemic. With the help of 199 participants from the survey, the authors can indicate if people are buying more or fewer lottery tickets. Hence giving us information on whether people are willing to find another form of income or not through matter of gambling on lottery tickets purchases.

3. Materials and Methods

In order to collect information and statistics, the researchers decided to use the survey through Google Forms for consumers to give the information of their behavior through the questionnaire. While the question is "What is the age of consumers" to understand how wide the market and consumers are, "What is



the approximate income of consumers” to analyze how much income affect the thought of purchasing, “Amount on purchasing before and after pandemic” to understand the behavior and how the pandemic affect that behavior. Furthermore, the authors will use the focus of the data gathered from the survey questions and to analyze by using a program called SPSS. The information will be put in an analysis method called mean, median, mode, pair-sample test, paired sample t-test. The analysis gathered was then used to see the standard deviation between the two samples of consumer purchasing lottery tickets before and during the Covid -19. The standard deviation was compared between each other to see if the effect of Covid-19 causes people to buy more or less lottery tickets. Thus, assumptions and analysis were considered based on the information gathered and brought back to compare with the hypothesis; showing that the researchers’ hypothesis is either correct or incorrect

4. Results and Discussion

Table 1 shows the quantity and percentage of the respondents with information classified by age. The majority of the respondents were between 20-35 years old, with 99 people accounting for 49.7 percent of the total, followed by a group of 36-50 years old with 62 people accounting for 31.2 percent, and then a group of 51 or above with 38 people accounting for 19.9 percent of the total. Then there shows the quantity and percentage of respondents with general information classified by income. The majority of the respondents reported a monthly income of 20,001-30,000 baht with 50 people accounting for 25.1 percent of the total, followed by a group of less than 10,000 baht income, which is 42 people accounting for 21.1 percent of the total, a group of monthly income of 10,000-20,000 baht with 36 people accounting for 18.1 percent, a group of income 30,001-40,000 bath with 34 people accounting for 17.1 percent, a group of income of more than 50,000 baht with 23 people accounting for 11.6 percent, and lastly, a group of 40,001-50,000 baht accounting for 14 people or 7 percent of the total (See Table 1).

Table 1 Age and Monthly Income

		Frequency	Valid Percent
Valid age	20-35	99	49.7
	36-50	62	31.2
	51 or above	38	19.1
	Total	199	100.0
Valid income	less than 10,000 baht	42	21.1
	10,000 - 20,000 baht	36	18.1
	20,001 - 30,000 baht	50	25.1
	30,001 - 40,000 baht	34	17.1
	40,001 - 50,000 baht	14	7.0
	more than 50,000 baht	23	11.6
	Total	199	100.0

Table 2 shows the amount of tickets purchased per draw before and during the Covid pandemic. For before pandemic the data were collected by categorical data since the number of tickets cannot be specify as the exact number which will make the data more difficult to analyze. The table shows that 32.7% of people never bought lottery ticket before, 26.6% of people rarely buy a lottery ticket, 24.6% of people buy lottery ticket once per month, and 16.1% of people buy lottery ticket every draw. So it was 65, 53, 49, and 32 people on each choice in order. For during pandemic table show the Frequency of number tickets purchased per draw during the Covid pandemic. With a total of 199 participants, the allocation of participant differs from the answer they made. The frequency shows the number of participants who answer for that section. ‘Never bought’ has 70, ‘Rarely buy’ has 40, ‘Every lottery tickets draw’ has 47, and ‘once per month’ has 42. As a result, 35.2 % of the people never bought lottery tickets during the Covid, 23.6% buy every lottery draw, 21.1% purchase once per month, and 20.1% people rarely buy the lottery tickets.



Table 2 shows how consumer behavior changed from before the covid-19 when 32 people bought lottery tickets to during the Covid-19 when the number of those who said they were saving money more than spending on lottery tickets increased to 47.

Table 2 Frequency buying before and during the Covid

		Frequency	Percent
Valid before	Every lottery tickets draw	32	16.1
	Once per month	49	24.6
	Rarely buy	53	26.6
	Never bought	65	32.7
	Total	199	100.0
Valid during	Every lottery tickets draw	47	23.6
	Once per month	42	21.1
	Rarely buy	40	20.1
	Never bought	70	35.2
	Total	199	100.0

In table 3, the authors did not use the specific number since it will overload the choices. So, the authors collected it by categorizing it in the range of 5 tickets, which shows how many lottery tickets were bought before Covid-19. The result was from 199 participants, in which all participants are allocated to the section they answered to. The frequency shows the number of participants who answer for that section. For 1-5 tickets have 121, 6-10 tickets have 36, Never bought has 31, 11-15 tickets have 8, and more than 15 tickets have 3. As a result, the percentage of each section is 1-5 tickets have 60.8%, 6-10 tickets have 18.1%, never bought at 15.6%, 11-15 tickets have 4.0%, and more than 15 tickets have 1.5%. Then it shows how many lottery tickets were bought before Covid-19. The result has 199 participants and all participants are allocated to the section they answered to. The frequency shows the number of participants who answer for that section. For 6-10 tickets have 118, 1-5 tickets have 46, 11-15 tickets have 22, didn't buy any have 8 and more than 15 tickets have 5. As a result, the percentage of each section is 6-10 tickets at 59.3%, 1-5 tickets at 23.1%, 11-15 tickets at 11.1%, didn't buy any at 4.0% and more than 15 tickets at 2.5%. See Table 3. This table shows the number of people whom didn't buy any tickets was slightly increase after Covid-19 pandemic happens and other range is also slightly decrease. But the only choice that people bought tickets slightly increase is more than 15 tickets.

Table 3 Number of tickets purchased before and during the Covid

		Frequency	Percent
Valid before	Never bought	31	15.6
	1-5 tickets	121	60.8
	6-10 tickets	36	18.1
	11-15 tickets	8	4.0
	More than 15 tickets	3	1.5
	Total	199	100.0
Valid during	1-5 tickets	46	23.1
	6-10 tickets	118	59.3
	11-15 tickets	22	11.1
	More than 15 tickets	5	2.5
	Didn't buy any	8	4.0
	Total	199	100.0



Table 4 shows the information about where respondents purchased lotteries before and during the Covid pandemic. Before the pandemic, the majority of 95 people are buying from all choices accounting for 47.7 percent, followed by 85 people buying from Lottery vendors accounting for 42.7 percent and 15 people buying from lottery shops accounting for 7.5 percent. The last group is online shop with 4 people accounting for 2 percent. The table shows the frequency of purchasing during the Covid and the information about where the respondents purchase lotteries during the Covid pandemic. The majority were online and all of them means most of the people buying it online. By people buying lottery tickets online is 72 people as same as buying from all choices which for accounting is 36.2 percent. Followed by lottery vendors with 42 people for accounting is 21.1 percent and the smallest group is lottery shop with 13 people for accounting 6.5 percent. See Table 4. This table shows the behavior of consumers that before covid-19 lottery tickets were purchased online the least while during the Covid -19 it increases to be the most this said that people spend time more shopping online than go purchase outside.

Table 4 Before and during the Covid where to purchase the lotteries

		Frequency	Percent
Valid before	Lottery shop	15	7.5
	Lottery vendors	85	42.7
	Online	4	2.0
	All of them	95	47.7
	Total	199	100.0
Valid during	Lottery shop	13	6.5
	Lottery vendors	42	21.1
	Online	72	36.2
	All of them	72	36.2
	Total	199	100.0

Table 5 first compared the frequency of purchasing lottery tickets behavior before and during the Covid pandemic which had an economic problem and purchased a lottery ticket in normal no less than during the Covid pandemic. The result shows that fewer people are purchasing lottery tickets than in a normal situation at the 95% confidence interval, t at .844 and significance at .400 means it was not significant. Then the comparison between the number of lottery tickets between the consumer purchases per lottery draw before the Covid pandemic and their behavior in purchasing during the Covid pandemic. With the hypothesis, the amount of tickets that people purchase in normal situations is more than they purchased during the Covid pandemic. The result also shows that the number of lottery tickets the consumer will purchase in one draw is more than during the Covid pandemic with a significance of 0.75 so it is not significant. And the participants purchased their lottery tickets before and during the Covid -19 pandemic. A hypothesis assumes that people would purchase more lottery tickets online rather than the traditional way to buy one during the pandemic. As a result, the analysis of the table shows that the hypothesis is correct due to that the significance is above 0.05. Where the significances are stated at .062 means that it was not significant (See Table 5).

**Table 5** Frequency buying before and during the Covid

	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	One-Sided p	Two-Sided p
Frequency buying before - during the Covid	.090	1.512	.107	-.121	.302	.844	198	.200	.400
Number of ticket purchased before - during the Covid	.101	.791	.056	-.010	.211	1.792	198	.037	.075
Where to purchase ticket before - during the Covid	-.121	.908	.064	-.247	.006	-1.874	198	.031	.062

5. Conclusion

To conclude, in Thailand, there are many people addicted to gambling so the government brings the rules and laws to prevent people from gambling but people still find ways to gamble. So, the government chooses to make some type of gamble to be legal such as lottery or betting on boxing. Then lottery became one of the ways Thai people try to test their luck or win a big prize.

The majority of our respondents' age was around 20-35 years old and they have a monthly income of about 20,000-30,000 baht. Before the Covid pandemic, 65 of the respondents never bought a lottery before while 32 people buy in a very lottery draw but during the Covid pandemic, the number of people that never bought is increasing as well as the number of people buying in every draw too. The amount that consumers purchase on each draw in normal situations is more than during the Covid pandemic, which might be because the pandemic affects the economy and also the choices of purchasing lottery tickets are various, such as online lottery shops and lottery vendors, while in the pandemic, people are turning to purchase from online more than in normal situations.

Limitations and further studies on the topic relating to the report can be further dived down into relation to gambling. Such topics can be the research of online gambling like online poker, slots, and various types of gambling games. Furthermore, the topic may be used for business research in the form of other gambling methods or may use this research to further enhance a business topic that has the same target in developing a new form of business that has a high risk of rewards like gambling. The limitation that the authors encountered is that there is a limited resource of information based on the topic. Moreover, the authors had limitations in finding a wide range of participants by age. Most of our participants were aged from 20 to 50, but finding anyone above the age of 50 was a challenge for our research. Another form of limitation the authors encountered is perfecting the use of the analysis program SPSS. Using such a program was challenging for us to perfectly analyze the information that the authors gathered and provide the most certain answer for the report.

6. References

- Ariyabuddhiphongs, V. (2011). Lottery gambling: A review. *Journal of Gambling Studies*, 27(1), 15-33. Retrieved December 15, 2021, from https://www.researchgate.net/profile/Vanchai-Ariyabuddhiphongs/publication/43355954_Lottery_Gambling_A_Review/links/58ed9f41a6fdcc61cc1092a8/Lottery-Gambling-A-Review.pdf
- Boonlab, S., & Pasitpakakul, P. (2019). Change Beliefs of Gambling Behavior in Thai Society. *Veridian E-Journal, Silpakorn University (Humanities, Social Sciences and arts)*, 12(6), 818-831. Retrieved December 14, 2021, from file:///C:/Users/Legion%205%203060%20200564/Downloads/165982-Article%20Text-744247-1-10-20191116.pdf
- Chiangkul, W. (2021). *How often do Thai people gambling?*. Retrieved December 13, 2021, from <https://www.bangkokbiznews.com/lifestyle/920185> [in Thai]



- Lapthananon, P., Jarubnja, R., Chindet, A. & Tuntakit, N. (2011). *Situation Behavior and Impact of Gambling in Thailand*. Bangkok: Chulalongkorn University Social Research Institute. Retrieved December 13, 2021, from http://www.gamblingstudy-th.org/imgadmins/research_file/Pinitetal2554.pdf [in Thai]
- Phimchai, S. (2017). *A Study on Lottery and Lotto Gambling Behavior: The Case for Bangkok Metropolitan Area*. A thesis for the degree of Master of Arts Program in Business Economics. Thammasat University. Retrieved December 15, 2021, from http://ethesisarchive.library.tu.ac.th/thesis/2017/TU_2017_5904010369_8266_7072.pdf [in Thai]
- Plainoi, S. (1979). *History of Huay Huai until becoming Government lottery tickets*. Retrieved March 2, 2022, from https://www.silpa-mag.com/history/article_15056 [in Thai]
- Wongsena, C. (2020). *Behavior in Buying Government Lottery of Merchants in Ubon Ratchathani Province*. Retrieved December 14, 2021, from <https://mmm.ru.ac.th/MMM/IS/vlt15-1/6114993076.pdf> [in Thai]