

What is the impact of digital disruption on BEC World's advertising revenues during 2014 – 2019?

Miss Karnmanee Pongtiyapaiboon



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น.ส.กานต์มณี พงศ์ดิยะไพบูลย์

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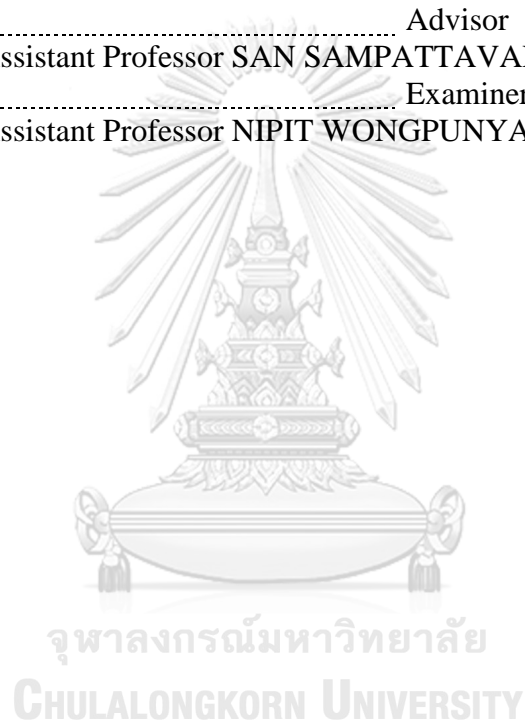
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By                                      Miss Karnmanee Pongtiyapaiboon  
Field of Study                      Business and Managerial Economics  
Thesis Advisor                      Assistant Professor SAN SAMPATTAVANIJA, Ph.D.

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INDEPENDENT STUDY COMMITTEE

..... Chairman  
(Associate Professor Chalaiporn Amonvatana, Ph.D.)  
..... Advisor  
(Assistant Professor SAN SAMPATTAVANIJA, Ph.D.)  
..... Examiner  
(Assistant Professor NIPIT WONGPUNYA, Ph.D.)



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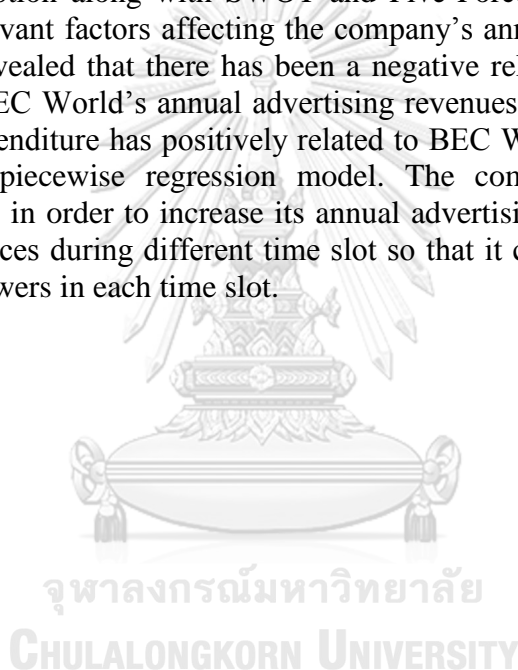
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# # 6284008529 : MAJOR BUSINESS AND MANAGERIAL ECONOMICS

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Recent digital disruption has negatively affected BEC World's annual advertising revenues, especially the past six years. The company has implemented several strategies in order to maintain its business. However, it has been unclear which strategies are successful in terms of boosting up the company's annual advertising revenues. This paper has adopted a piecewise regression model in order to see if there is a relationship between BEC World's annual advertising revenues and digital disruption along with SWOT and Five-Force analysis so as to see if there are any relevant factors affecting the company's annual advertising revenues. The study has revealed that there has been a negative relationship between digital disruption and BEC World's annual advertising revenues while growth rate of real consumption expenditure has positively related to BEC World's annual advertising revenues under piecewise regression model. The company can use provided recommendations in order to increase its annual advertising revenues by analyzing viewers' preferences during different time slot so that it can match proper types of contents with viewers in each time slot.



Field of Study:	Business and Managerial Economics	Student's Signature
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		.....

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## **Introduction**

In the world of globalization and digitalization, people can connect to each other in the blink of an eye by using either line, wechat, facebook messenger or e-mail, teleconference, and etc. These processes have been done through the internet of things (IoT) in the digital era. There are new technological gadgets and/or programs launched every day to help facilitate our life especially in a business world. That is how the word “digital disruption” has been come to our consideration. All industries have to adapt their business models in order to survive when facing with digital disruption.

Hence, the media industry is another interesting industry that the author wants to pinpoint. In Thailand, many people have been growing up with “Channel 3” by either watching Thai series and TV programs or listening to daily news updated. Yet, only few groups of people have known that Channel 3 is a listed company in the Stock Exchange of Thailand (SET) as called “BEC World Public Company Limited”. With digital disruption and the recent economic downturn, it is obviously evident that BEC World’s advertising revenues have been shrunk. The results of this study will have several implications for both the Thai government and other companies within the same industry considering the social benefits the society will get if the government subsidizes the media industry in the digital era. More importantly, by intervening the media industry, not only this industry will benefit but also the overall Thai economy will be improved in terms of employment rate and GDP.

The objective of this paper is to assess the impact of digital disruption on BEC World’s advertising revenues during the period of 2014 to 2019 where there has been a huge growth of technological advances and the starting point of digital television in Thailand, leading to the digital disruption towards BEC World and other industries and the economic downturns in Thailand. The author also has come up with the hypothesis that BEC World’s annual advertising revenues will tend to be lower through time because people are more likely to be binge watching viewers who generally want to watch whatever they like non-stop at the time. This will make them displeased when seeing any pop-up advertisements while they are enjoying their programs. Thus, other platforms such as Netflix, iFlix, Facebook Live, Youtube, Line TV and etc. will have higher chance of being watched than normal platform like BEC

World or Channel 3 due to the fact that those platforms have shorter advertisements and the audience can skip. The scope of this study is to see the trend of BEC World's annual advertising revenues six years before and after the Act of Digital TV implemented in Thailand in 2014 as the reason mentioned earlier. The author wants to focus on only "advertising revenues" since these figures are positively related to the ratings which are the measurement showing that how many people are watching BEC World's TV dramas, news, and TV programs live at a time. Hence, it is implied that advertising revenues are an indicator to tell us that how popular BEC World is nowadays.

### **Literature Review**

Karimi and Walter (as cited in Skog, Wimelius, & Sandberg, 2018) noted that digital disruption is defined as an environmental turmoil generated by digital innovation which has led to the collapse of fundamental approaches and procedure previously used for producing and capturing value of an organization. In order to succeed in the age of digitalization, many scholars have suggested firms must have abilities to both stimulate digital disruption and induce systemic changes within their organization so that core conditions can be maintained (Skog, Wimelius, & Sandberg, 2018). We have known that digital disruption has tremendously affected the world in many aspects and businesses. One industry that is in the author's interest is the media industry or to be more specific the television industry in Thailand.

Many Thai people have watched "Channel 3" or "BEC World Public Company Limited" (BEC World in short for further mentioned in this paper). Yet, less attention has been paid to the television industry and/or media industry itself. The television industry has been viewed as a two-sided market where there are two different groups of consumers: content consumers or television viewers who consume information, entertainment and etc. and on the other hand advertisers who look for their potential customers (Nilssen, 2010). Van den Dam and Nelson (as cited in Evens, 2010) had noted that digital television providers can make money from their existing assets by playing as a data broker due to the fact that they have had customer information in their hands. Therefore, the two-sided method can help television providers create their "value" through the sales of their "conducting" as

intermediaries between two different types of customers without holding any tangible goods and services (Evens, 2010).

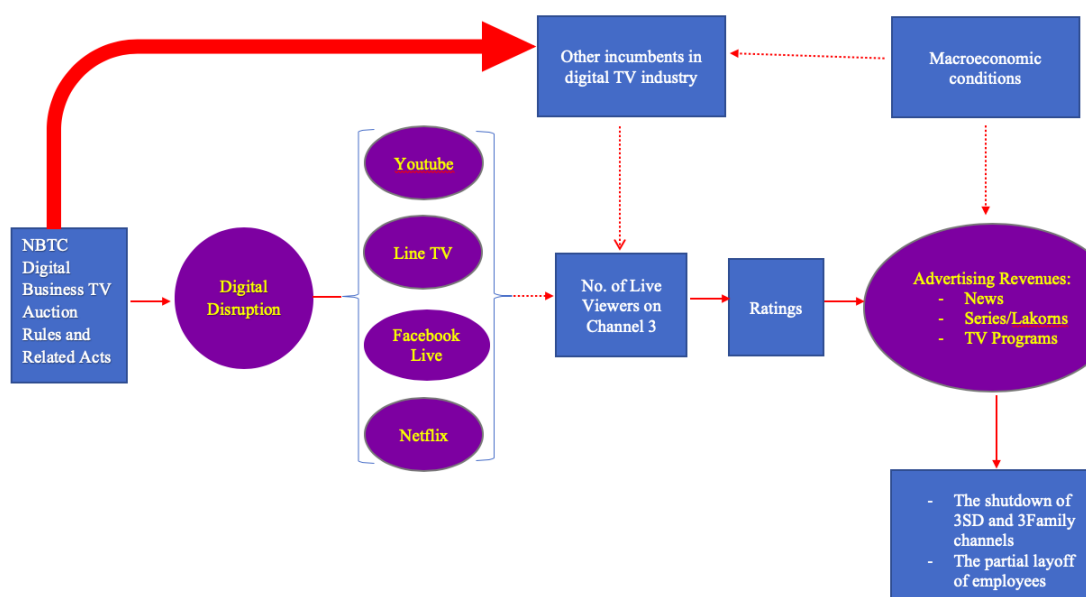
So far, the author wants to explain how each television provider around the globe, including BEC World, can traditionally generate their major source of income- advertising income. In general, television viewers are freely allowed to access to commercial broadcasters while revenues can be generated mainly from selling advertising time which is dependent on the number of viewing and density rates (Evens, 2010). In short, revenues are generated based on the number of live viewers which will lead to a so-called measurement as “ratings”. The more the viewers, the higher the ratings and the more advertising revenues generated. Previously, when technology has not been this advanced, viewers were forced to get used to with either watching advertisements or switching from a current channel to another because they had no better choice. However, over decades ago, once Youtube has been launched and it is free of charge to all users, it is inevitable that the launch of Youtube has somehow changed viewers’ behavior. For example, some users in the U.S. had illegally posted full episodes of major network series program on Youtube and eventually the networks and program suppliers had taken down those illegal videos under the Digital Millennium Copyright Act (DMCA) (Waterman, Sherman, & Sung, 2012). Apart from the issue of copyright, another reason that could be responsible for this illegal action could be that viewers had more choices instead of wasting their time watching all the advertisements during the series were broadcasted. Another example of the digital disruptive effect on the media and/or television industry is to focus on “Netflix”, a streaming platform that users can enjoy various types of TV shows, movies, series, cartoons, documentaries and etc. The most important reason why Netflix can beat several television providers in Thailand including BEC World is that Netflix has provided commercial free viewing experience to its users. Instead, Netflix has generated revenues mainly from monthly membership subscription and sponsorship programs, i.e., clothes and other daily-life products which are tied in each series so that viewers will not be interrupted while enjoying their new experience (Matrix, 2014). This could lead producers to feel free when creating contents on Netflix because they will not be dictated by those who purchase advertising time (Sim, 2016). Moreover, major viewers of Netflix are called as “binge viewers” or

“back-to-back viewers” who demand to watch their favorite series whenever and wherever they desire (Matrix, 2014). These reasons are only examples why Netflix could gain high attention in television and/or media industry in Thailand. Due to digital disruption, new and interesting platforms have indirectly impacted BEC World’s advertising revenues.

With digital disruption, it is unavoidable that many television providers, including BEC World, have been negatively affected since viewers tend to have several interesting choices at a time, leading to a significant loss of advertising revenues generated each year. However, in order to survive in this industry, many television providers have had to adapt their business model. In this case, BEC World has tried many ways in order to meet their viewers’ watching style, i.e., launching CH3 Plus as another platform for binge viewers, producing new contents to target each group of its viewers, etc. It is believed that there are still lots of audience but television providers just need to find their own way to reach and get attention from their audience. Still, the government intervention is necessary for television and/or media industry in Thailand because if television providers are subsidized by the government, they will have less incentive to attract advertisements. This again will benefit viewers in terms of watching experience. Most importantly, the quality of platforms will be enhanced along with the social value of advertising and lower nuisance cost (González-Maestre & Martínez-Sánchez , 2013).

### Conceptual Framework

Figure 1. The conceptual framework



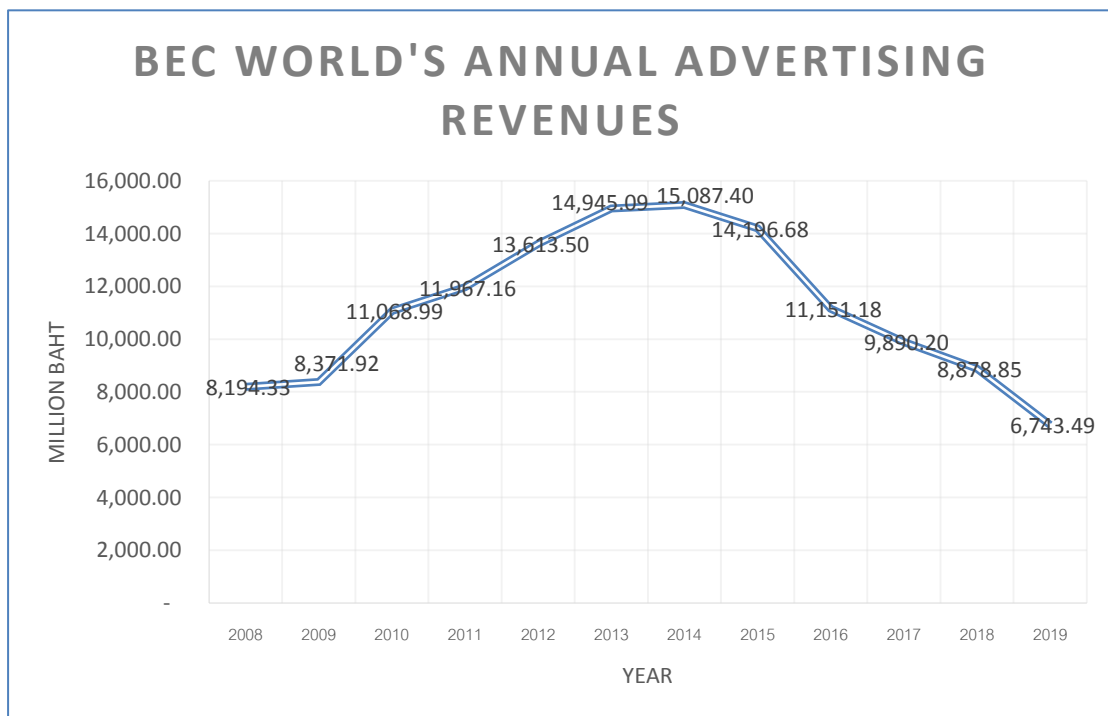
The above conceptual framework shows how the digital disruption has affected advertising revenues of BEC World and/or Channel 3. According to the TV industry, majority of BEC World's and other firms' revenues are generated from selling advertisements either from series, TV dramas, news or TV programs. In the digitized world, BEC World has been negatively disrupted because consumers tend not to watch the mentioned components live. Instead, there are several new platforms for consumers to choose, i.e., Netflix, Youtube, Facebook Live, Line TV, WeTV and etc. When fewer people are watching Channel 3, the ratings will be lower, causing fewer advertising revenues generated. Nevertheless, Channel 3 still has had many incumbent competitors such as Channel 7, GMM25, Workpoint, Channel 8, One 31 and etc. These existing digital TV channels are trying their best to gain attention from the audiences. More importantly, all digital TV channels must follow rules and acts legislated by the National Broadcasting and Telecommunications Commission (NBTC), which is an auction they need to do in order to get a license through digital TV broadcasting. This could lead Channel 3, and its rivals, to a huge amount of loss owing to the large amount of money paid for the digital TV license along with the very low advertising revenues it can generate. That has been the reason why BEC World has decided to stop broadcasting Channel 3SD and Channel 3 Family in 2019, attributing to a layoff of its employees in order to maintain the last source of its revenues. Finally, the author wants to identify how macroeconomic conditions can influence the advertising revenues of BEC World during the specified period of time.

## Data

Period	Year	Annual Advertising Revenues (Million Baht)	Mean (Million Baht)	S.D. (Million Baht)
Before Digital TV and Digital Disruption	2008	8,194.33	11,360.17	2,732.56
	2009	8,371.92		
	2010	11,068.99		
	2011	11,967.16		
	2012	13,613.50		
	2013	14,945.09		
After Digital TV and Digital Disruption	2014	15,087.40	10,991.30	3,187.38
	2015	14,196.68		
	2016	11,151.18		
	2017	9,890.20		
	2018	8,878.85		
	2019	6,743.49		

**Table 1.** BEC World's annual advertising revenues during 2008 – 2019

The dataset that the author used had been drawn from BEC World's annual financial statements during 2008 – 2019. In this case, there were only two variables of interest: annual advertising revenues which were measured in terms of million baht and year. However, as mentioned previously, the author had categorized annual advertising revenues into two periods which were before and during the digital television business. As Figure 2 shown below, BEC World's advertising revenues had reached its peak during the specified period in 2014 which was the first year entering into the digital television industry. This, in turn, had made viewers to have more choices in term of their watching preferences and experiences, leading to a declining in BEC World's annual advertising revenues since 2015 onwards.



**Figure 2.** The graph shows upward and downward trend of BEC World’s annual advertising revenues

### Research Methodology

The author had used both econometric and descriptive approach to answer the research question as the steps follows:

First of all, the author looked through BEC World’s financial statement (from its annual reports) six years before and after the digital television auction rules and regulations: 2008 – 2013 as the period before versus 2014 – 2019 as the period after and came up with a graph to see if there was a significant decrease in advertising revenues and to check if that decrease was from only digital disruption or other factors such as macroeconomic conditions.

Second, the author had run a piecewise regression model to see if there was a negative relationship between BEC World’s annual advertising revenues and digital disruption. This analysis had been done with an assumption that once BEC World had entered into the digital television industry, viewers would have more choices in terms of both higher numbers of digital television providers and digital disruptive platforms, i.e., Youtube, Line TV, Netflix, etc. Furthermore, the author had found whether there



were any other factor affecting advertising revenues and redo the piecewise regression.

Third, the author had analyzed BEC world by using SWOT and Five-Force analysis to explain why BEC World's advertising revenues had decreased since 2015 onwards. In order to support the above analysis, the author had also used business news reporting and/or literature review study regarding the technological advances towards Thailand's television industry during 2014 – 2019 to see if BEC World and its existing peers had done any campaign, marketing strategy or even created new platform themselves to gain attention from audiences and/or increase the number of live viewers and had analyzed if that campaign, marketing strategy or new platform created was successful.

Lastly, the author had made recommendations to BEC World about how to survive in the digitalized world and what the firm could have done in order to reach new audiences, especially in terms of BEC World's contents when compared to its rivals within the same industry.

## **Econometric Approach**

### **Data Analysis**

In this case, the author wanted to know the effect of digital disruption on BEC World's advertising revenues. The author had decided to use a piecewise regression in order to see both upward and downward trend of BEC World's annual advertising revenues given the break point of 2014 which was the year the television industry had entered into the digital television and several online platforms and/or streaming had also been presented for viewers to have more choices. Under piecewise regression, the equation would be presented as below:

$$Y = b_0 + b_1x + b_2(x - x^K)x_K$$

where  $X^K$  was a knot value or a break point which was the point that showed a change from an upward (downward) trend to a downward (upward) trend and  $X_K$  was a variable in which it was called a "dummy knot". A dummy knot had contained only two values, either 1 or 0 under the condition relating to the break point ( $X^K$ ). Piecewise regression was another type of a linear regression in which we needed to subtract the independent variable we were interested in with the knot value first and

then multiplied the difference by the dummy knot value of each X so that we would be able to use the product of this multiplication to run a linear regression.

To illustrate this, the piecewise regression relating to this topic had been set as below:

$$\text{Annual Advertising Revenues} = b_0 + b_1\text{Year} + b_2(\text{Year} - 2014)x_K$$

In this case, the author had used data in Table 1 by setting the knot value ( $X^K$ ) to be 2014 due to the reason previously mentioned and setting the dummy knot ( $X_K$ ) under the condition that if  $\text{Year} \geq 2014$ ,  $X_K$  would be equal to 1 and  $X_K$  would be equal to 0 as long as  $\text{Year} < 2014$ .

After running the piecewise regression, the result “Model 1” had been shown as follow:

$$\text{Annual Advertising Revenues} = -2536426 + 1267.2\text{Year} - 3074(\text{Year} - 2014)x_K$$

If  $X_K = 0$ , the regression would be:

$$\text{Annual Advertising Revenues} = -2536426 + 1267.2\text{Year} - 3074(\text{Year} - 2014)(0)$$

Or

$$\text{Annual Advertising Revenues} = -2536426 + 1267.2\text{Year}$$

If  $X_K = 1$ , the regression would be:

$$\text{Annual Advertising Revenues} = -2536426 + 1267.2\text{Year} - 3074(\text{Year} - 2014)(1)$$

Or

$$\text{Annual Advertising Revenues} = -2536426 + 1267.2\text{Year} - 3074(\text{Year} - 2014)$$

Since all variables were statistically significant, it could be interpreted that if  $X_K = 0$ , there would be an upward trend of BEC World’s annual advertising revenues. To be more specific, BEC World’s annual advertising revenues before the digital disruption, during 2008 – 2013, had been increasing because there was no yellow highlighted negative number added. However, if  $X_K = 1$ , there would be a downward trend of BEC World’s annual advertising revenues after the digital disruption, during 2014 – 2019, and this could be implied that digital disruption had negatively affected BEC World’s annual advertising revenues holding other things constant if we ignored any other relevant factor, i.e., consumer spending, cost and/or expenditure of advertising revenues an advertiser had to pay, etc. Thus, the knot value of 2014 was the break point or the peak before there had shown a decreasing trend. More importantly, as the result shown, the intercept was a negative of 2536426, this could be implied that BEC

World had to bear the cost of generating an annual advertising revenue itself. Once the company could earn any advertising revenue, there had some costs the company had to pay.

Nonetheless, it had been found that there were several interesting factors affecting annual advertising revenues, for example, growth rate of real consumer spending, color TV penetration, multi-channel TV viewing, demand for TV advertising, supply of TV advertising, etc. (Office of Communication from PwC, 2004). Unfortunately, due to limitation of data access, only Thailand's real consumption expenditure from NESDC could be found (Office of the National Economic and Social Development Council, 2020). Then, the author had run the piecewise regression again and came up with "Model 2" as below:

$$\begin{aligned} & \textit{Annual Advertising Revenues} \\ & = -2482800 + 1240.2\textit{Year} - 3057 (\textit{Year} - 2014)x_K \\ & + 15339.2\textit{Growth of Real Consumption Expenditure} \end{aligned}$$

Under the second model, it could be interpreted that the growth rate of real consumption expenditure had a positive relationship with BEC World's annual advertising revenues. In short, if the growth rate of real consumption expenditure had increased by 1%, BEC World's annual advertising revenues would increase by approximately 15,339.2 million baht holding other things constant. The higher the growth rate of real consumption expenditure, the better the overall economy. As we had known that consumption expenditure, C, which was an overall consumption by households, was a part of a nation's GDP (gross domestic product), the greater consumption expenditure had been implied that the economy had been healthy and the unemployment rate was low, leading to a higher level of production and a flow of money both in goods market and money market. This situation would help boost up BEC World's revenues, especially advertising revenues. Yet, there had been some factors affecting BEC World's annual advertising revenues, which were not presented in these two models. In this case, the author had explained through a further SWOT and Five-Force Analysis of BEC World.

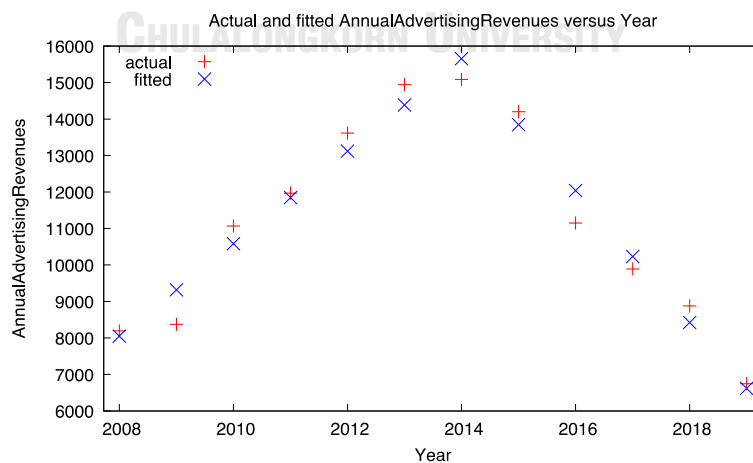
## The results and graph

**Table 2.** The Result of Model 1

Model 1: OLS, using observations 1-12				
Dependent variable: Annual Advertising Revenues				
Variables	Coefficient	Std. Error	t-ratio	p-value
Constant	-2.53643e+06	204846	-12.38	5.89e-07 ***
Year	1267.17	101.845	12.44	5.65e-07 ***
Year2014DN	-3073.97	202.281	-15.20	1.01e-07 ***
Mean Dependent var	11175.73		S.D. Dependent var	2837.085
Sum Squared Residual	3289866		S.E. of regression	604.5996
R-squared	0.962843		Adjusted R-squared	0.954586
F (2, 9)	116.6077		P-value(F)	3.67E-07
Log-likelihood	-92.15597		Akaike Criterion	190.3119
Schwarz Criterion	191.7667		Hannan-Quinn	189.7733

**Table 3.** The Result of Collinearity Test under Model 1

Collinearity Test	
Variance Inflation Factors	
Minimum possible value = 1.0	
Values > 10.0 may indicate a collinearity problem	
Year	4.058
Year2014DN	4.058
VIF(j) = 1/(1 - R(j)^2), where R(j) is the multiple correlation coefficient between variable j and the other independent variables.	



**Figure 3.** The graph shows actual and fitted annual advertising revenues through time.

**Table 4.** The Result of Model 2  
 Model 2: OLS, using observations 1-12  
 Dependent variable: Annual Advertising Revenues

Variables	Coefficient	Std. Error	t-ratio	p-value
Const	-2.48280e+06	162495	-15.28	3.34e-07 ***
Year	1240.24	80.8024	15.35	3.22e-07 ***
Year2014DN	-3056.96	159.258	-19.2	5.62e-08 ***
Growth of Real Consumption Expenditure	15339.2	5995.87	2.558	0.0337 **
Mean Dependent Var	11175.73		S.D. Dependent var	2837.085
Sum squared resid	1809500		S.E. of regression	475.5917
R-squared	0.979563		Adjusted R-squared	0.971899
F (3, 8)	127.8144		P-value(F)	4.26E-07
Log-likelihood	-88.56919		Akaike Criterion	185.1384
Schwarz Criterion	187.078		Hannan-Quinn	184.4203

**Table 5.** The Result of Collinearity Test under Model 2

Collinearity Test	
Variance Inflation Factors	
Minimum possible value = 1.0	
Values > 10.0 may indicate a collinearity problem	
Year	4.128
Year2014DN	4.065
Growth of Real Consumption Expenditure	1.038
$VIF(j) = 1 / (1 - R(j)^2)$ , where $R(j)$ is the multiple correlation coefficient between variable $j$ and the other independent variables	

## **Descriptive Approach**

### **BEC World's SWOT Analysis**

#### **Strengths**

1. Its reputation as a listed company in the Stock Exchange of Thailand compared to its rivals, i.e., Channel 7, One 31, Channel 8, etc. This had led to easy access to funds.
2. Organizational Structure Changes to be more specific the changes of top management in order to let more professionals manage the company as details follows:
  - According to BEC World's annual report 2016, in November 2016, Mr. Prawit Maleenont resigned from all the management positions of BEC World and asked his brother "Mr. Prachum Maleenont" to be G-CEO in March 2017 (BEC World Public Company Limited, 2017).
  - According to BEC World's annual report 2017, in 2017, the Maleenonts decided to sell all of BEC World's shares which they had been holding in order to signal that the Maleenonts had no power over the company. (BEC World Public Company Limited, 2018)
  - However, as of March 27, 2020, the Maleenonts have bought the shares back and have been holding 34.48% in total while the first major shareholder is "Mr. Thaveechart Jurangkool" who has 11.51% of BEC World's shares (SET, 2020).
  - During 2017, BEC World led by Mr. Prachum had gathered several executive presidents, managers or even chiefs but the most important person was "Mr. Somprasong Boonyachai", a former AIS CEO, to position in Chairman of the Corporate Governance Committee of BEC World (BEC World Public Company Limited, 2018) so as to raise investors' and the industry's confidence back after the three-year decline of BEC World's annual advertising revenues due to digital disruption.
  - Nevertheless, in 2018 according to BEC World's annual report 2018 (BEC World Public Company Limited, 2019), there had been a lot of resignation of many people in the top management level, leading to the loss of control towards BEC World.

- As reported by BEC World's annual report 2019 (BEC World Public Company Limited, 2020), on March 4, 2019, BEC World had got "Mr. Ariya Banomyong" who had formerly been working as President of LINE Thailand and Google Thailand to become the new CEO of BEC World. Due to his working experience in Tech companies, BEC World was confident that Mr. Ariya would be able to lead BEC World into a brighter way.
3. As reported by BEC World's annual report 2018 (BEC World Public Company Limited, 2019), the company had created its new digital platform namely "Ch3Thailand Mello", which had contained only series and TV dramas or the so-called lakorns, as a website and an application which was free to download for both iOS and Android since BEC World did not want to rely heavily on only "television media". Surprisingly, thanks to "Buppessannivas (Love Destiny)" which had been live broadcasted in 2018 for the first time, Mello had been tremendously recognized by BEC World's fans. However, BEC World had recently rebranded the application from "Mello" to "CH3+", led by Mr. Ariya Banomyong because he wanted the new rebranded application to contain all contents produced and broadcasted in Channel 3 including news, TV programs, TV dramas, etc. More importantly, BEC World had associated with Line TV and Youtube (Tangsiri, 2018) in order to reach online viewers since the company had seen that some viewers could not watch its contents during the actual broadcasting time due to different lifestyle and necessities. In addition, the company had found that majority of Line TV viewers were teenagers, leading to the idea that associating with Line TV might help draw attention from younger viewers simultaneously. Thus, the company had launched these new platforms in order to meet viewers' need regardless of date, time and place.
  4. As stated in BEC World's annual report 2016, BEC-TERO Entertainment had signed a contract as a joint venture agreement with Live Nation (HK) Limited, a subsidiary company of a listed company in New York Stock Exchange namely Live Nation Entertainment Incorporated Company in order for both of them to operate concerts for foreign artists in Thailand (BEC World Public

Company Limited, 2017). By signing a joint venture agreement, the company aimed to broaden its business line so as to generate revenues from different channels.

5. In line with BEC World's annual report 2018 (BEC World Public Company Limited, 2019), the company had collaborated with JKN Global Media Public Company Limited ("JKN") in the licensing so that BEC World could broadcast its Thai TV dramas abroad. Besides, the company also hoped that this would help broaden its audience base around the world in order for BEC World to be able to generate more revenues.
6. Two distinct TV dramas namely "Nakee" and "Buppesannivas (Love Destiny)" were broadcasted in 2016 and 2018 respectively during prime time, which normally was 6.00 PM – 10.30 PM for TV dramas (Navawatana, 2011) when people were having their leisure time after school and work. These two TV dramas helped BEC World increase both ratings and advertising revenues. More interestingly, Nakee had also been filmed as "Nakee 2" which at that time was the new business line BEC World could have and this movie had generated overwhelmingly revenues for BEC World (Marketing Oops, 2019).

### **Weaknesses**

1. BEC World had had to bear the burden of "digital television cost" for overall three channels:
  - BEC World got three channels under the digital TV auction: 3HD (Channel 33), 3SD (channel 28) and 3 Family (Channel 13) which was for kids. Yet, the result turned out to be negative because the overall expenditure of the auction was greater than 6,500 million baht as reported in BEC World's annual report 2013 (BEC World Public Company Limited, 2014).
  - Unpleasantly, in an accounting method, the licensing cost from the auction had been recognized as an annual expenditure in 2013 while BEC World failed to generate advertising revenues to cover this expenditure, leading to the closure of 3SD and 3 Family on September 30, 2019. Still, BEC World had been compensated for the closure of 3SD and 3 Family from the National Broadcasting and Telecommunications Commission (NBTC) at



the amount of 680 million baht and 162.5 million baht respectively (Marukatat, 2019).

- Besides, the number of channels had increased from six channels of free TV to twenty-four digital TV channels while the number of advertisers had remained (Marketing Oops, 2019).
2. Although BEC World, or to be more specific Channel 3, and Channel 7 had been dominating the television industry in Thailand, Channel 3 had lower number of viewers base than that of Channel 7 because only urban people (Bangkok and nearby provinces) normally watched Channel 3 while Channel 7 could gain lots of rural people in many provinces for approximately 40% of the television industry in Thailand as stated in BEC World's annual report 2014 (BEC World Public Company Limited, 2015).
  3. "Rueng Lao Chao Nee" as a magnet of Channel 3 was negatively affected by the sudden stop of Mr. Sorayuth Suthassanachinda who previously was sued due to the embezzlement of 138 million baht in advertising revenues (Thai PBS World, 2020) when he produced a news program for the Mass Communication Organization of Thailand (MCOT) or Channel 9. This had led to a sharp drop in BEC World's ratings and advertising revenues because many advertisers decided to withdraw their products from this famous news program owing to the bad image of the host.

### **Opportunities**

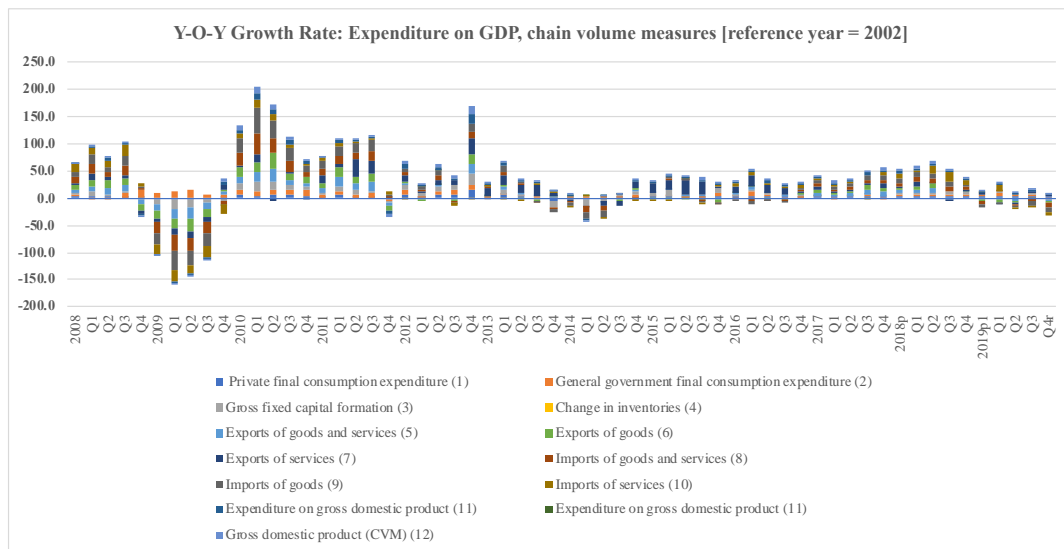
1. In 2013 which was the last year before entering into the digital TV, six channels of free TV including Thai PBS, Channel 3, Channel 5, Channel 7, Channel 9 and NBT had gained popularity and rating accounted for 62% of the overall Thai households, leading to high bargaining power over advertising revenues more than Cable TV and/or Satellite TV. It was found that the advertising rate in free TV channels during 2013 was 20-30 times higher than that of optional channels (TCIJ Reporter Team, 2019).
2. As previously stated in BEC World's annual report 2014 (BEC World Public Company Limited, 2015), majority viewers of Channel 3 were urban people, rather than rural-area people, whose characters were as follows:

- They tended to be well-educated, leading them to have better technological skills. Thus, they could easily access to BEC World's online platforms either Mello/CH3+, Line TV or Youtube. These online platforms were another channel the company had been trying to reach its audience.
  - They generally often used social media, for example, twitter, facebook, instgram, etc. This would definitely have a high impact to BEC World when any TV programs or TV dramas were interestingly broadcasted since this type of viewers would keep talking about their favorite programs on social media platforms.
  - They had high purchasing power when there had been events and markets BEC World had created, i.e. Actors and Actresses Market, Channel 3's annual football game, etc. This had positively impacted BEC World.
3. Many famous actors and actresses decided to switch their workplace from other channels such as Channel 7 to Channel 3: for example, Chompoo Araya, Poh Nuttawut, Aff Taksaorn, Yam Montira, Taew Nataphon, and etc. This had also brought their fans to switch their preferences from other channels to Channel 3.

### **Threats**

1. Economic downturn as Figure 4 “Y-O-Y Growth Rate: Expenditure on GDP, chain volume measures (reference year = 2002)” shown below. According to the World Bank Group (The World Bank (Dutt, 2016) Group, 2020), it was obvious that after the Global Financial Crisis in 2008, Thailand's GDP growth rate had been negatively affected, leading to a high growth of government spending in 2009 and the trend had changed to be an upward during 2010 – 2011 but with a slight drop in the fourth quarter of 2011 owing to the Great Flood. Later, the GDP growth rate in 2012 had slowly decreased compared to 2010. Unfortunately, due to the political turmoil in 2013 with several protestants against the former government along with the coup d'état in 2014, Thailand's GDP growth rate had rapidly diminished. However, the government spending had played an important role in boosting up the overall Thailand's economy in 2015. Still, Thailand's GDP growth rate trend had been hampered by the sluggish world's economy: for example, in 2016, the

crash in China's stock market, the cut in oil production from both OPEC and non-OPEC countries and BREXIT (Dutt, 2016). These events have worsened the world's economy including Thailand's as well.



**Figure 4.** The graph shows Thailand's Y-O-Y growth rate on GDP during 2008 – 2019 from NESDC

2. The National Broadcasting and Telecommunications Commission (NBTC) was too slow in educating and supporting the digital TV in Thailand:
  - Both content providers and viewers were lacking of knowledge and knowhow of how to access the digital TV. Besides, the quality of digital TV in the very first year was quite low. This led to the cause of time-consuming and cost-wasting for both content providers and viewers. That could be the reason why several channels were shut down.
  - The way NBTC set the number of each channel was unclear.
3. Digital TV in Thailand had not come into the right timing because:
  - From Analog to Digital + 3G/4G, Thai households could easily access to the Internet along with the lower prices of smartphones, leading to the behavior of "Mobile First" (Marketing Oops, 2019), which people relied heavily on their mobile phones the whole day since the time they woke up in the morning until their bedtime. This had reduced the importance of a television simultaneously because smartphones had replaced a television.

Hence, the amount of time a potential viewer had spent on watching a television would be decreasing.

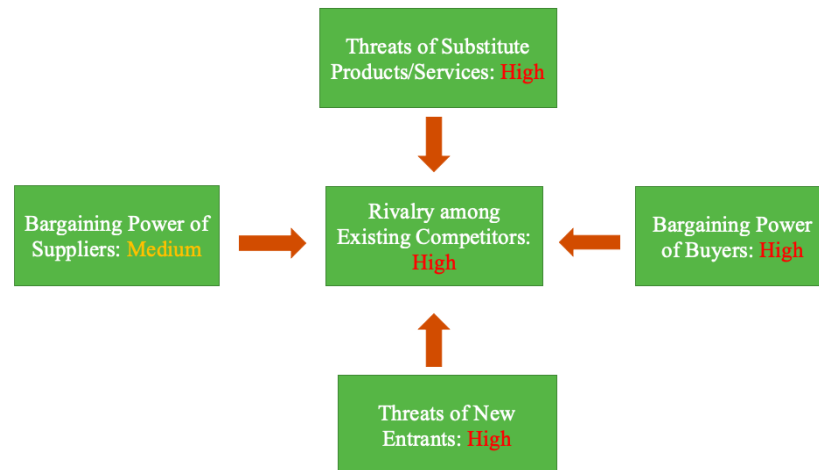
- Easy access to the Internet and smartphones also changed audiences' behavior as each individual had his/her own "prime time" while the prime time of TV industry was normally during 6.00 PM – 10.30 PM because most people were having their leisure time after work and school and this was the time each channel could previously generate highest advertising revenues (Marketing Oops, 2019).
  - According to Mr. Thakorn Tantasit, the secretary of NBTC, he had revealed that in 2014 Thailand had been ranked as the first country in the world with the highest growth rate of Internet usage from the study conducted by the International Telecommunication Union (ITU) (Office of the NBTC Admin, 2016). Moreover, the number of Internet usage via a smartphone had been increasing 7% every year since 2014 onwards (Positioning Admin, 2019). This digital disruption had benefited viewers in terms of more platforms and channels to choose both offline and online. This could explain why BEC World and other channels had been facing with the decrease of live viewers, leading to lower rating and lower advertising revenues generated because parts of advertisers had changed their platform of advertisements from a television media to online streaming such as Line TV, Youtube, etc.
4. On October 13, 2016 afternoon, all Thai people were facing with a major loss, this had suddenly decelerated several economic activities (The World Bank Group, 2019) including the demand of advertisements during day time because the media and entertainment industry had been unexpectedly suspended for more than a month as stated in BEC World's annual report 2016 (BEC World Public Company Limited, 2017). However, the temporary slowdown of Thailand's economic activities during the last quarter of 2016 had been improved by holiday tax deduction on shopping and domestic tourism within the country (The World Bank Group, 2019).

### BEC World's SWOT Analysis (Table Summary)

<b>Internal Factors (Controllable)</b>	
<b>Strengths</b>	<b>Weaknesses</b>
<ol style="list-style-type: none"> <li>1. A listed firm in SET</li> <li>2. Changes of top management by inviting professionals to manage instead of the Maleenonts.</li> <li>3. Creating its own online platform as “Mello” or “CH3+” later to reach non-live viewers.</li> <li>4. Signing a joint venture agreement with Live Nation (HK) Limited in order to operate concerts for foreign artists in Thailand: new business line of generating revenues.</li> <li>5. Collaborating with JKN Global Media in order to broadcast TV dramas abroad</li> <li>6. Two distinct TV dramas which helped increase advertising revenues during prime time.</li> </ol>	<ol style="list-style-type: none"> <li>1. Bearing the burden of digital TV cost for three channels while the number of advertisers had remained.</li> <li>2. Having lower audience base when compared to Channel 7 which had been the all-time competitor of BEC World in TV industry.</li> <li>3. Bad image from the host of “Rueng Lao Chao Nee”, a famous news program which had been generating a lot of advertising revenues for years.</li> </ol>
<b>External Factors (Uncontrollable)</b>	
<b>Opportunities</b>	<b>Threats</b>
<ol style="list-style-type: none"> <li>1. In 2013 before entering into the digital TV, BEC World had high bargaining power over advertisers.</li> <li>2. Majority of BEC World's viewers had high purchasing power and well-educated.</li> <li>3. Many famous actors and actresses had switched their workplace from other television providers to BEC World.</li> </ol>	<ol style="list-style-type: none"> <li>1. Economic downturns mainly from the Global Financial Crisis in 2008, the Great Flood in 2011, the Political Turmoil in 2013 and the crash in China's stock market, the cut in oil production from both OPEC and non-OPEC countries and BREXIT in 2016, etc.</li> <li>2. NBTC was too slow in educating and supporting the digital TV in Thailand.</li> <li>3. Digital TV in Thailand had come into the wrong timing.</li> <li>4. On October 13, 2016 afternoon, all Thai people were facing with a major loss, this had suddenly decelerated several economic activities including the demand of advertisements during day time</li> </ol>

**Table 6.** The Summary of BEC World's SWOT Analysis

### BEC World's Five-Force Analysis



**Figure 5.** BEC World's Five-Force Analysis

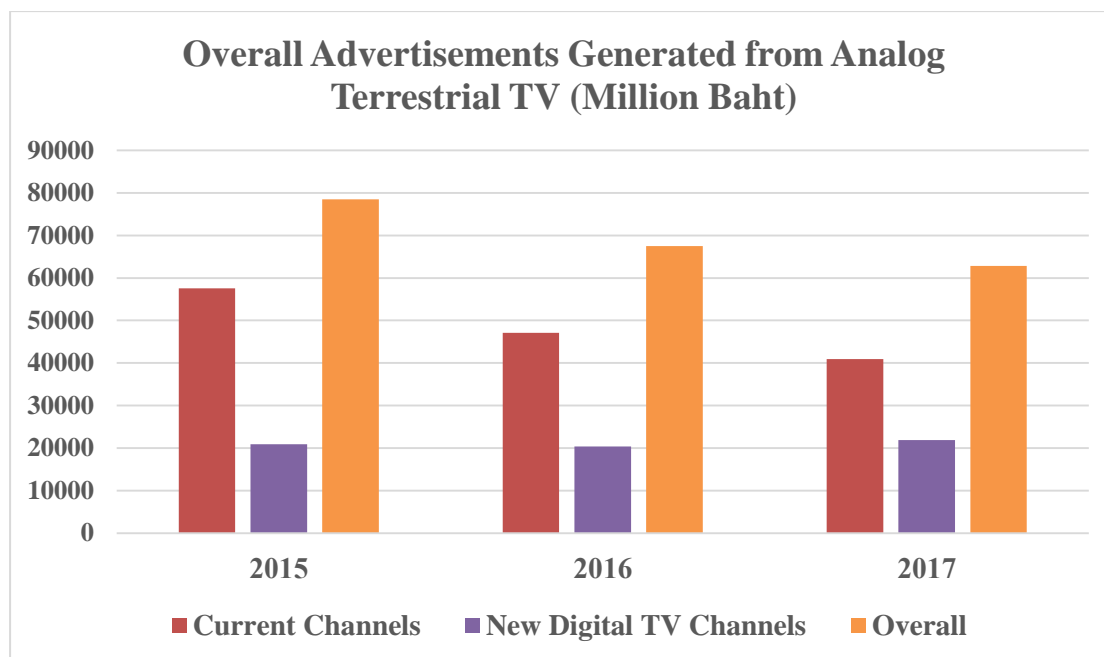
#### 1. Internal Rivalry among Existing Competitors: High

According to the report done by the National Broadcasting and Telecommunications Commission concerning the Analysis of Thailand's Television Industry and its Future Prediction (NBTC, 2018), there had been only six channels of free TV previously. There were Channel 3 (BEC World), Channel 5 (Royal Thai Army Radio and Television), Channel 7, Channel 9 (the Mass Communication Organization of Thailand), NBT (The National Broadcasting Services of Thailand) and Thai PBS. Among of the six free TV channels, Channel 7 and Channel 3 had had the highest number of viewers which were accounted for 46.62% and 34.04% respectively. Interestingly, the proportion of revenues of both Channel 7 and Channel 3 were compatible with their number of viewers which were attributed to 32.02% and 30.28% respectively. It was obvious that at that time Channel 3, run by BEC World, and Channel 7 had monopolized the analog television industry because there was no official organization managing the television industry unlike NBTC had done nowadays. Moreover, the technological infrastructure was not advanced, leading several households in rural areas to buy a satellite, cable television or even a pay television so that they could access a better watching experience. Thanks to the affordable price and operating expenditure of satellite, cable television and pay

television, over 14.5 million of households could experience their watching preferences, which were accounted for 66% of the overall 22 million households in 2012.

The overall Thailand's television industry in 2013 had been found that merely 25% of the total households had watched the analog terrestrial television broadcasting system while the remaining 75% had watched through the satellite/cable television system. Yet, it was fascinatingly revealed that more people were watching channels from the analog terrestrial television broadcasting system than special channels broadcasted solely in the satellite/cable television system with the proportion of 83% and 17% respectively.

Since April 2014 onwards, Thailand had entered into digital TV era. This was such an essential change in Thailand's television industry because not only the government concession through the television industry was disappeared but private companies could also join the digital TV auction. Thus, there would be no longer the monopoly in the television industry. With technological advances which in turn had led to the digital disruption along with more private digital television providers, the behavior of viewers in Thailand's television industry had tremendously changed in a few years after the digital TV had implemented, causing the declining in the nation's overall advertising expenditure in the digital television industry during 2015 – 2017 as Figure 6 shown below. After the auction in 2014, there had been more television providers, in short more channels, while the number of advertisers had remained together with the economic downturns, leading several advertising agencies to still buy advertising time from the same channels as they did previously such as Channel 3 and Channel 7. On the other hand, advertising agencies would buy advertising time from some of new digital TV channels only if the ratings were high enough to draw viewers' attention such as Workpoint, One 31, Mono 29 and Channel 8.



**Figure 6.** The overall advertisements generated from analog terrestrial TV during 2015 - 2017

Source: NBTC's 2018 Report (NBTC, 2018)

Concerning the major change in the television industry, BEC World who was one of the two channels monopolizing the industry had been negatively affected since viewers had had more choices in their watching experience. In this case, the author had categorized BEC World's existing competitors in the digital TV industry into three main types of contents generated which were news programs, TV dramas and TV programs such as variety TV programs.

First, in terms of news programs, BEC World's competitors were Thairath TV, One 31, Amarin TV, Channel 7. Second, TV programs which normally were variety TV programs, the competitors were Workpoint and One 31. Third, the most important contents that many of Thai people had paid attention to when compared to the previous two were TV dramas. BEC World's main competitors were Channel 7, One 31, Channel 8 and GMM 25. In this case, the author had provided Table 7 and Figure 7 showing BEC World's Annual Advertising Revenues Compared with Peers during 2014 - 2019 as follows:



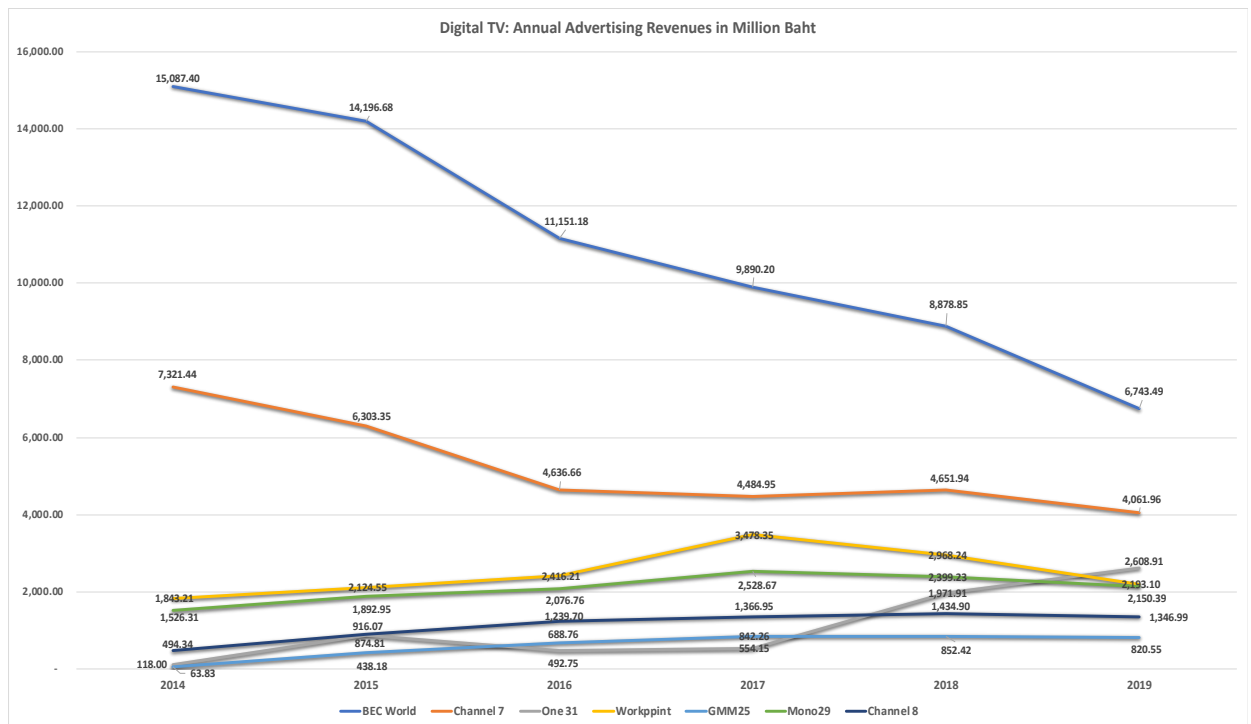
**Table 7.** BEC World's Annual Advertising Revenues Compared with Peers

Source: DBD (DBD DataWarehouse, 2020)

Annual Advertising Revenues in Million Baht							
Year	BEC World	Channel 7	One 31	Workppint	GMM25	Mono29	Channel 8
2014	15,087.40	7,321.44	118.00	1,843.21	63.83	1,526.31	494.34
2015	14,196.68	6,303.35	874.81	2,124.55	438.18	1,892.95	916.07
2016	11,151.18	4,636.66	492.75	2,416.21	688.76	2,076.76	1,239.70
2017	9,890.20	4,484.95	554.15	3,478.35	842.26	2,528.67	1,366.95
2018	8,878.85	4,651.94	1,971.91	2,968.24	852.42	2,399.23	1,434.90
2019	6,743.49	4,061.96	2,608.91	2,193.10	820.55	2,150.39	1,346.99

From Figure 7 shown below, it was apparent that both BEC World and Channel 7 who were the big television providers were facing with the decrease in their annual advertising revenues during 2014 – 2019 which was the period that Thailand had entered into the digital era, leading to the effect of digital disruption. At the same time, the other five channels' annual advertising revenues were increasingly fluctuating.

However, the most obvious rising trend went to One 31 who had had such a high growth during the last two years because One 31 had changed its contents especially TV dramas in order to attract younger viewers to watch its channel live. For example, Lued Khon Kon Jang (In Family We Trust), Mia and Mueang Maya were broadcasted in 2018 while Huajai Sila (Man of Vengeance), Baimai Tee Plid Plew (The Leaves) and Sao Noi Roi Laan View (Rising Girl) were broadcasted in 2019.



**Figure 7.** BEC World's Annual Advertising Revenues (in million baht) and its Peers during 2014 – 2019 (digital disruption period)

Those TV dramas had driven One 31 to be mentioned in the social media. Besides, these TV dramas were broadcasted during the prime time, leading to a lot of advertising revenues earned due to their high ratings and views. According to Mr. Thakolkiat Veerawan, the executive president of ONE 31 (The Standard Team, 2019), he himself believed that the television industry in Thailand could still make profits. Moreover, he and his team had qualitatively and quantitatively analyzed contents in each specific period so that One 31 could match the proper contents to fit with the target viewers. He also added that this process could be done successfully because One 31 was both a content producer and a television platform and this had been correctly proven by the third rank in the digital television industry for the three consecutive months. In addition, the rerunning of prior TV dramas had also risen the rating of One 31 (TV Digital Watch, 2019). That could be responsible for an increase in the overall rating from 2018 to 2019 as Table 8 shown below.

Comparison of Digital TV Ratings				
Rank	Channels	2018	2019	Changes
1	Ch 7 HD	1.831	1.827	Decreased
2	Ch 3 HD	1.397	1.182	Decreased
3	Mono 29	0.84	0.832	Decreased
4	Workpoint	0.803	0.696	Decreased
5	One 31	0.52	0.578	Increased
6	Thairath TV 32	0.408	0.443	Increased
7	Amarin 34 HD	0.32	0.335	Increased
8	Ch 8	0.546	0.306	Decreased
9	Ch 3 SD	0.301	0.296	Decreased
10	PPTV 36 HD	0.161	0.200	Increased
11	Nation	0.119	0.184	Increased
12	MCOT HD	0.198	0.16	Decreased

**Table 8.** The comparison of each digital TV channel's ratings between 2018 and 2019

Source: TV Digital Watch (TV Digital Watch, 2019)

On the contrary, even though BEC World had generated highest annual advertising revenues compared to its peers, it was apparently evident as Figure 7 shown previously that it was a decreasing trend. Interestingly, BEC World had had a rapid drop in its annual advertising revenues in 2016 onwards while Channel 7 had been able to maintain its annual advertising revenues. This was again due to the contents BEC World had broadcasted. As Figure 8 shown below, we could clearly see that majority of the highest rating TV dramas had been broadcasted in Channel 7 whilst only two TV dramas were from BEC World: Nakee and Buppesannivas (Love Destiny).



**Figure 8.** TV dramas with highest ratings during 2015 – 2018

Source: TV Digital Watch (TV Digital Watch, 2019)

To sum up, the internal rivalry among existing competitors was very high for BEC World because its peers had been changing contents in order to attract new and young viewers. One more thing the author wanted to point out was that unlike One 31, BEC World had not produced contents itself. Instead, major of BEC World contents such as TV dramas had been produced by other people, leading to several sets of TV dramas waiting to be broadcasted. Therefore, BEC World had simply sold advertising time for each content.

## 2. Bargaining Power of Suppliers: Medium

As stated in its annual report 2017 (BEC World Public Company Limited, 2018), BEC World's sources of revenues were composed of advertising revenues, revenues from copyright and other services, revenues from organizing concerts and shows and sales of products. Among of these four sources, advertising revenues were BEC World's main sources of its total revenues, which had been accounted for approximately 85% - 90% of the total revenues generated each year. Furthermore, BEC World had not produced all of broadcasted contents itself (NBTC, 2018). Generally, there would be several TV drama producers who would do all processes since the beginning: find a novel or a writer, cast main actors and actresses, supervise all the production procedure, financially support that TV drama and in the end submit all the finished series to BEC World in order to arrange when their TV dramas would be broadcasted.

Majority of TV drama producers who had created contents for BEC World were normally prior actors and actresses who had gained lots of experience in their career path such as Ann Thongprasom with her own "Thong Entertainment Limited Company", Pongpat Wachirabanjong with his own "Act-Art Limited Company", or

even Nong Arunosha Panupan, a Thai celebrity who has worked with BEC World since she graduated from the faculty of communication arts Chulalongkorn University, with her own “Broadcast Thai Television Limited Company”, etc. In this case, BEC World’s job was simply to select appropriate dates and time to be on the air so as to reach its viewers and be able to sell advertising time as much as the company could. Hence, BEC World had such different types of TV dramas to choose, leading to low bargaining power of TV drama producers and/or suppliers towards the company.

Unlike TV dramas, news and TV programs had high bargaining power of suppliers and/or producers because few producers had been serving contents for BEC World when compared to TV dramas. There had been several news programs currently but the author would like to emphasize on the most popular one as “Hon Krasae” produced and hosted by Noom Kanchai Kamnerdploy with his and his wife’s company namely “Dee Kuen Dee Wan Limited Company.” Impressively, Hon Krasae had brought BEC World a lot of viewers and such high rating that BEC World’s executives had asked Mr. Kanchai, the host of the program, to extend the broadcasting period from Monday to Thursday of every week during 8.30 PM – 9.00 PM to be on the air five days a week since 5.20 PM – 6.00 PM in 2017. More surprisingly, the program had been so well-performed that BEC World had asked Mr. Kanchai to shift the broadcasting time to be in the afternoon 1.30 PM – 2.10 PM in order to drive the rating of Channel 3 up in 2018 and to be in the morning of every Sunday during 6.50 AM – 7.20 AM recently (Sriwong, 2019). This could be implied that Mr. Kanchai and his company had high bargaining power over BEC World as a content producer of news programs.

Similar to news programs, TV program producers had a very high bargaining power over BEC World due to lots of digital television providers. For example, The Voice Thailand, a singing contest originated from the United States of America, The Face Thailand, a modelling competition also originated from the United States of America, and Ching Roi Ching Lan, a famous and funny variety show produced by Workpoint had been switched their broadcasting channel from Channel 3 to PPTV and Workpoint TV respectively. For the first two programs, they had been negatively affected by digital disruption along with fewer sponsors (Position Mag Admin,

2018), driving down their ratings. So, they finally decided to switch their broadcasting channel from Channel 3 to PPTV since PPTV provided them much lower airtime rental rate than Channel 3 (Undub Zapp Team, 2018). However, for the latter program “Ching Roi Ching Lan”, it was evidently clear that the program produced by Workpoint should be transmitting through Workpoint Channel instead of any other channel.

Therefore, the overall bargaining power of suppliers or producers in this case was considered as medium because several types of contents either TV dramas, news or TV programs broadcasted on Channel 3 had helped average BEC World’s control over the bargaining power of content producers.

### **3. Bargaining Power of Buyers: High**

According to BEC World’s annual report 2018 (BEC World Public Company Limited, 2019), there were two types of customers under the television industry: viewers and advertisers. How each television provider would be able to gain advertising revenues depended on a number of viewers watching a specific TV drama, news or TV program. This would in turn reflect in a rating of each program. The more viewers were watching a certain program live, the higher rating the program would be. This process would attract advertisers to buy an advertising time. This could draw the conclusion that advertisers would positively relate to a number of viewers of a certain TV program and its rating.

Thereby, under the digital TV industry, the bargaining power of buyers were extremely high since BEC World who had been operating Channel 3 had considerable competitors as mentioned earlier in the part of the first force which was “internal rivalry among existing competitors” such as Channel 7, Channel 8, Workpoint TV, One 31, GMM 25, PPTV, etc. The higher competitors, the more choices for consumers both viewers and advertisers. More importantly, as an individual viewer under the digital TV industry in Thailand, he/she could watch only one channel at a specific period of time through a television. Thus, this would cause such an intense competition within the industry. If an individual viewers had chosen to watch one channel, other channels would lose this potential viewer, leading to the situation of “Winner takes all.” However, under the digital TV industry, as there had been an increasing number of new television providers and/or channels, there would also be

higher demand of new contents created (Post Today Team, 2013). This, in turn, would attribute to the lower switching cost for viewers and this would be followed by advertisers owing to the reason explained precedently.

In conclusion, the bargaining power of buyers under the digital TV industry was very high. The only way to draw viewers' attention was about contents as contents were the measurement of how successful a television provider and/or channel was. The more interesting and creative the contents, the more viewers and higher rating the television provider would get (NBTC, 2018).

#### **4. Threats of New Entrants: High**

Within the digital TV industry nowadays, it was quite difficult to differentiate between new potential entrants and substitute platforms. Anyhow, the author would separate between these two components by holding on to platforms they were using, in this case, either online or offline. To be more specific, new potential entrants in the digital TV industry were those who would broadcast all of their contents mainly through a television despite the fact that they might have their own online platforms such as an application or a website but they normally relied heavily on a television platform rather than an online platform. In short, they would broadcast all of their contents through a television first and they would launch all the contents into their online platforms once the live contents had been finished.

Hence, threats of new entrants towards BEC World would be excessively high because they needed to spend such a large amount of money to do the digital TV auction in order to get the license and this was such a high barrier to entry in terms of cost disadvantages and access to inputs for new entrants. In addition, thanks to multiple competitors in the current market, it was not easy for new entrants to reach economies of scale in content production because it had not yet done once contents were completely produced but it really did matter who would be watching the contents and most importantly who would buy advertising time. Thus, it was tough to do the analysis of viewers' behavior for new entrants when compared to existing incumbents whose learning curve was considerably high. Lastly, it was even more challenging to build a brand identity so that viewers would recognize and would switch from their prior watching experience of incumbents to new entrants as it was already said that the switching cost for viewers in this industry was absolutely low.

### 5. Threats of Substitute Products/Services: High

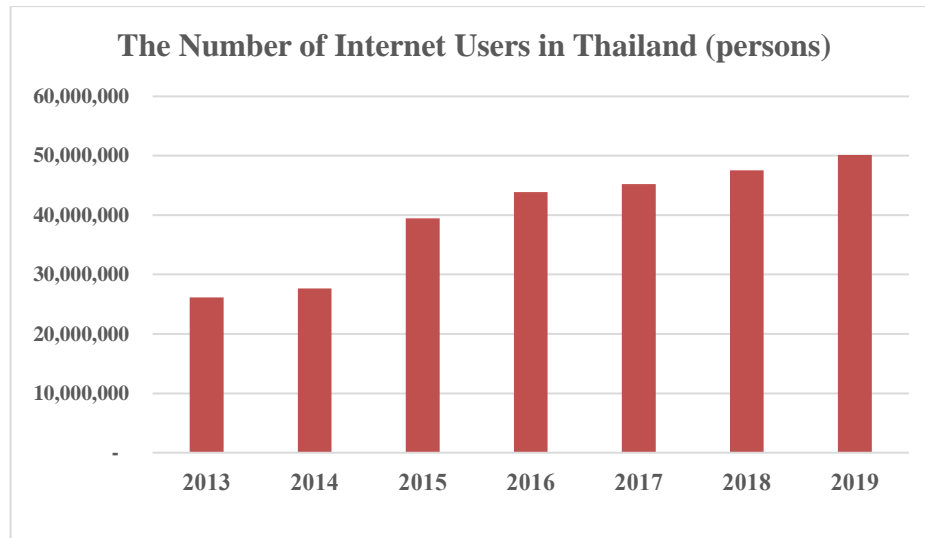
As stated previously in the part of threats of new entrants, substitute products/services of the digital TV industry were online platforms which had been innovated and had been widely used thanks to technological advances. In this part, the author had explained how digital disruption had negatively affected the digital TV industry during the past few years.

After the digital TV auction in 2013, Thailand had not only entered into the digital TV industry but had also faced with the boom of “Over-The-Top or OTT” media service which were on air via the Internet network instead of a satellite, a cable or even a television provider (Halton, 2019) such as Youtube, Line TV, Netflix, iTunes, WeTV, HOB Go, Hulu, Amazon Prime Video, etc. With the online platforms, it was unavoidable that viewers’ behavior had rapidly changed since they did not need to sit and watch their favorite contents through their televisions or even computers and/or laptops anymore. Instead, what they only needed to have was a smartphone which connected to the Internet connection. More attractively, the number of Thai people using the Internet had been abruptly increasing since 2013 onwards as Table 9 and Figure 9 shown below.

**Table 9.** Internet Users in Thailand during 2013 – 2019

Internet Users in Thailand	
Year	No. of Internet Users (persons)
2013	26,140,473
2014	27,653,927
2015	39,466,260
2016	43,873,732
2017	45,189,944
2018	47,558,923
2019	50,103,944





**Figure 9.** Thailand's Internet users during 2013 - 2019

Source: NBTC (NBTC Internet Statistics Report, 2020)

Statistically explaining, according to the National Statistical Office of Thailand (NSO) (TCIJ News Reporter, 2019), the survey done in the fourth quarter of 2018 had revealed that 20.6 out of 21.6 million households of Thailand had had gadgets for watching television contents. It was found that 62.6 percent of the total households had watched television contents through flat-screen televisions while 37.7 percent and 9.1 percent had watched television contents via computers and smartphones respectively. In short, it had been disclosed that overall Thai households had been simultaneously using fewer televisions, computers and telephones while they had increasingly consumed smartphones in their daily life. As stated in NSO's report 2018 (The National Statistical Office, 2018), there had been an upward trend of smartphone users from 48.1 to 56.7 million users during 2014 – 2018. More interestingly, more people had been accessing the Internet network via their smartphones instead of computers. This would be compatible with the number of Internet users in Figure 9 that more Thai people were surfing the Internet and this number had kept increasing every year.

Thus, the threats of substitute products/services towards BEC World were completely high thanks to the digital disruption. People had been able to watch either TV dramas, news and TV programs regardless of places and time they wanted since there had been so many online platforms competing with BEC World and its existing competitors. For example, people could watch news programs through Voice TV,

Thairath TV, etc. which were broadcasted on either Facebook Live or Youtube Live. Furthermore, those who were considered as binge viewers could catch up with their favorite TV dramas or any other content via the OTT media services.

More strikingly, many actors and actresses had had their own channels on Youtube or Facebook Fanpage in order to provide contents themselves directly to their fans and the cost of this compared to a television provider, say, BEC World, was much lower. This also had allured those who were not a celebrity, actor and actress to be on their own spotlights thanks to technological advances which in turn had led to lower prices of technological gadgets. Anyone with a smartphone could currently broadcast him/herself regardless of places and time they were.

### **Conclusion**

Digital disruption had a negative impact on BEC World's annual advertising revenues holding other things constant as the piecewise regression and its explanation had shown. Nonetheless, there were numerous factors affecting BEC World's annual advertising revenues such as the growth rate of real consumption expenditure, the amount of time a potential viewer spent on watching a television, the demographics of the viewers, the number of people watching a certain TV program, Thailand's economic conditions and the management team of BEC World. The second piecewise regression had also helped explain that there had been a positive relationship between the growth rate of real consumption expenditure and BEC World's annual advertising revenues. On the other hand, other factors which were not in the piecewise regression model had been descriptively explained by SWOT and Five-Force Analysis.

This had drawn to the conclusion that as time went by, there had been considerably technological advances. Thai people's life had been lifted up owing to the development of technology, leading to the change of viewers' behavior towards the digital TV industry. Smartphones had replaced televisions in many aspects. That could be the reason why many advertisers had changed their platforms of broadcasting advertisements into some of OTT media services.

## Recommendations

As the author had spent lots of time searching what BEC World had done so far in order to fight against digital disruption, BEC World had been either launching its own online platform as Mello and/or rebranded as CH3+ or had been selling its license of TV dramas to be broadcasted on other OTT media services such as Line TV, Netflix, WeTV, Youtube, and other online platforms in several foreign countries (Bangkok Biz News Team, 2020). Yet, one thing that BEC World had not done was an in-depth analysis on what its viewers in each different time slot wanted to watch especially in terms of TV dramas.

As long as BEC World had not done a study or research like One 31 had done, BEC World's contents during its prime time would never reach viewers' expectation. In fact, the author would recommend the company to take its most famous TV dramas after the digital era as "Nakee", "Buppesannivas (Love Destiny)", and recently "Aok Kueb Hak Aeb Rak Khun Samee (My Husband in Law)" into its case study of what, when, how and why these three TV dramas were very successful and were mentioned about in social media. Lastly, the author would like to recommend BEC World to make its own original contents which viewers could only watch through BEC World's platforms either online or offline as Netflix had done. This would make BEC World outstanding instead of just taking contents from other content producers and selling advertising time.

## REFERENCES



จุฬาลงกรณ์มหาวิทยาลัย  
**CHULALONGKORN UNIVERSITY**

- Bangkok Biz News Team. (2020, June 22). *Bangkok Biz News*. Retrieved from Bangkok Biz News Website:  
<https://www.bangkokbiznews.com/news/detail/886104>
- BEC World Public Company Limited. (2014). *Annual Report 2013*. Bangkok: BEC World Public Company Limited.
- BEC World Public Company Limited. (2015). *Annual Report 2014*. Bangkok: BEC World Public Company Limited.
- BEC World Public Company Limited. (2016). *Annual Report 2015*. Bangkok: BEC World Public Company Limited.
- BEC World Public Company Limited. (2017). *Annual Report 2016*. Bangkok: BEC World Public Company Limited.
- BEC World Public Company Limited. (2018). *Annual Report 2017*. Bangkok: BEC World Public Company Limited.
- BEC World Public Company Limited. (2019). *Annual Report 2018*. Bangkok: BEC World Public Company Limited.
- BEC World Public Company Limited. (2020). *Annual Report 2019*. Bangkok : BEC World Public Company Limited.
- DBD DataWarehouse. (2020, June 20). *DBD DataWarehouse*. Retrieved from DBD DataWarehouse Website:  
<https://datawarehouse.dbd.go.th/fin/profitloss/5/0105556143616>
- Dutt, R. (2016, December 26). *The Economic Times*. Retrieved from The Economic Times Business:  
<https://economictimes.indiatimes.com/news/international/business/five-events-that-shook-world-economy-in-2016/articleshow/56182833.cms?from=mdr>
- Evens, T. (2010). Value Networks and Changing Business Models for the Digital Television Industry. *Journal of Media Business Studies*.
- González-Maestre, M., & Martínez-Sánchez , F. (2013). The role of platform quality and publicly owned platforms in the free-to-air broadcasting industry. *Springer*.

- Halton, C. (2019, July 17). *Investopedia*. Retrieved from Investopedia Website:  
<https://www.investopedia.com/terms/o/over-top.asp>
- Marketing Oops. (2019, March 5). *Marketing Oops*. Retrieved from Marketing Oops Website: <https://www.marketingoops.com/news/biz-news/channel-3-bec-world-crisis/>
- Marketing Oops. (2019, March 8). *Marketing Oops*. Retrieved from Marketing Oops Website: <https://www.marketingoops.com/news/biz-news/channel3-bec-world-ariya-banomyong/>
- Marukat, S. (2019, August 18). *Bangkok Post*. Retrieved from Bangkok Post Website: <https://www.bangkokpost.com/business/1732427/digital-tv-still-struggles-despite-fewer-channels>
- Matrix, S. (2014). The Netflix Effect: Teens, Binge Watching, and On-Demand Digital Media Trends . *Project Muse*.
- Navawatana, P. (2011). *Thailand Media Sector New competitive landscape*. Bangkok: Thanachart Securities.
- NBTC. (2018). รายงานการวิเคราะห์สภาพอุตสาหกรรมและตลาดกิจการโทรทัศน์ไทยและทิศทางในอนาคต. Bangkok: NBTC.
- NBTC Internet Statistics Report . (2020, June 28). *NBRC*. Retrieved from NBTC Website: <http://webstats.nbtc.go.th/netnbt/INTERNETUSERS.php>
- Nilssen, T. (2010). The Television Industry as a Market of Attention. *Nordicom Review* .
- Office of Communication from PwC. (2004). *Economic Analysis of the TV Advertising Market*. London: PricewaterhouseCoopers LLP.
- Office of the National Economic and Social Development Council. (2020, February 17). *Office of the National Economic and Social Development Council*. Retrieved from NESDC:  
[https://www.nesdc.go.th/nesdb\\_en/ewt\\_news.php?nid=4417&filename=national\\_account](https://www.nesdc.go.th/nesdb_en/ewt_news.php?nid=4417&filename=national_account)
- Office of the NBTC Admin. (2016, October 3). *Office of the NBTC*. Retrieved from Office of the NBTC Website: <https://www.nbtc.go.th/News/Press-Center/ITU-ประเทศไทยมีอัตราการเติบโตของการใช้งานอินเทอร์เน็ต.aspx>

- Position Mag Admin. (2018, August 19). *Position Mag*. Retrieved from Position Mag Website: <https://positioningmag.com/1184033>
- Positioning Admin. (2019, September 30). *Positioning*. Retrieved from Positioning Mag Website: <https://positioningmag.com/1247989>
- Post Today Team. (2013, December 17). *Post Today*. Retrieved from Post Today Website: <https://www.posttoday.com/finance-stock/news/265507>
- SET. (2020, March 27). *SET*. Retrieved from SET Thailand Website: <https://www.set.or.th/set/companyholder.do?symbol=BEC&ssoPageId=6&language=th&country=TH>
- Sim, G. (2016). Individual Disruptors and Economic Gamechangers: Netflix, New Media, and Neoliberalism . *Bloomsbury Academic & Professional*.
- Skog, D. A., Wimelius, H., & Sandberg, J. (2018). Digital Disruption. *CrossMark*.
- Sriwong, M. (2019, March 4). *Thai SMEs Center*. Retrieved from Thai SMEs Center Website: <http://www.thaismescenter.com/10-เรื่องจริงที่คุณไม่รู้-รายการโทรทัศน์กระแส/>
- Tangsiri. (2018, February 10). *Brand Inside*. Retrieved from Brand Inside Website: <https://brandinside.asia/ch3-linetv-drama-rerun/>
- TCIJ News Reporter. (2019, October 20). *TCIJ*. Retrieved from TCIL Thai Website: <https://www.tcijthai.com/news/2019/10/scoop/9502>
- TCIJ Reporter Team. (2019, November 15). *TCIJ Thai*. Retrieved from TCIJ Thai Website: <https://www.tcijthai.com/news/2019/15/scoop/9579>
- Thai PBS World. (2020, January 21). *Thai PBS World*. Retrieved from Thai PBS World Website: <https://www.thaipbsworld.com/news-anchor-sorrayuth-sent-to-jail-for-embezzlement/>
- The National Statistical Office. (2018). *The Survey of the Usage of Information Technology and Telecommunication in Thai Households*. Bangkok: The National Statistical Office.
- The Standard Team. (2019, June 11). *The Standard*. Retrieved from The Standard Website: <https://thestandard.co/one-31-strategy/>
- The World Bank Group. (2019, January 23). *The World Bank: IBRD-IDA*. Retrieved from The World Bank: <https://www.worldbank.org/en/country/thailand/publication/thailand-economic-monitor-december-2016>

- The World Bank Group. (2020, January). *The World Bank: IBRD.IDA*. Retrieved from The World Bank:  
<http://documents.worldbank.org/curated/en/394501579357102381/pdf/Thailand-Economic-Monitor-Productivity-for-Prosperity.pdf#page=18>
- TV Digital Watch . (2019, February 16). *TV Digital Watch* . Retrieved from TV Digital Watch WEbsite: <https://www.tvdigitalwatch.com/analysis-rating-lakornthai-58-61-update/>
- TV Digital Watch. (2019, July 31). *TV Digital Watch*. Retrieved from TV Digital Watch Website: <https://www.tvdigitalwatch.com/tvrating-week-22-28-july-62/>
- Undub Zapp Team. (2018, December 20). *Undub Zapp*. Retrieved from Undub Zapp Website: <https://undubzapp.com/4-รายการสิ่ง-ซ้ายช่อง/>
- Waterman, D., Sherman, R., & S. W. (2012). The Economics of Online Television: Revenue models, Aggregation, and “TV Everywhere”. *n.a.*



## VITA

**NAME** Karnmanee Pongtiyapaiboon  
**DATE OF BIRTH** 22 April 1995  
**PLACE OF BIRTH** Chulalongkorn Hospital, Bangkok  
**INSTITUTIONS ATTENDED** Faculty of Economics, Chulalongkorn University  
**HOME ADDRESS** 115 Moo 1 Wang Tako, Mueang, Phetchaburi, 76000



จุฬาลงกรณ์มหาวิทยาลัย  
CHULALONGKORN UNIVERSITY