THE SHIFT FROM TELEVISION TO MULTI-SCREEN IN THAILAND

BY

MR.NIRATTISAIHONGDILOKKUL

ANINDEPENDENT STUDY SUBMITTED IN
PARTIALFULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF SCIENCE PROGRAM IN MARKETING
(INTERNATIONAL PROGRAM)
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INDEPENDENT STUDY

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ABSTRACT

As Thailand becoming more digitalization, Internet penetration has been growing radically and gradually. Not only Computer was the way to access online anymore, but also the smart phone. Besides, the emerging of digital TV and the augment of the Internet penetration through mobile phone and tablet drive people viewing behavior changed dramatically. People were more selective, and switch to television channel to other devices. This research aimed to summarize the industry media trend and multi-screen issues.

There were three main objectives of the research. First was to identify the change of screen media penetration trend in Thailand. Second was to identify the difference of viewing behavior between before and after the emerging of multi-screens. Last was to identify key channels that reach the viewers effectively in multi-screen era.

The research was conducted by using the exploratory research and descriptive research. Secondary data was used to provide media trend in another countries and Thailand. Questionnaire survey self-administer using quota sampling aimed to represent Thai consumer behavior on media.

The independent study would provide insightful information about media penetration trend, TV viewing behavior, the effect of digital TV, multi-screen devices, multi-screen content, and multi-screen behavior which would be beneficial for media owner and marketer in Thailand in order to improve their business in the future.

Keywords:Multi-Screen, Digital TV, Media fragmentation, Media Habits, TV Watching Behavior, Media Trend

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Mr. Nirattisai Hongdilokkul

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CHAPTER 1
INTRODUCTION

Currently, the world was in the digital era where many things have been transformed into digital forms. Previously, television receiving transmission through analog format was only people's main screen. Today, the popularity of high-tech computers, mobile, and tablet were phenomenally high, reaching the point when it has become uncommon for people not to own any of such multi-screen devices. As a result, the growth rate of the multi-screen media market has greatly risen, leading to change in media landscape. This has brought in many company and marketer, who foresee the change in people behavior, to adjust their marketing plan and adapt to media era.

In Thailand, people had 97.49% screens media penetration including television, computer, tablet, and mobile which divided into 78.33% television and 19.16% other screens in 2013 (Nielsen, 2013). The trend of others screens tends to keep increasing that there were 98.15% screens media penetration with 75.06% television and 23.09% other screens in 2014 (Nielsen, 2014). In 2015, people were more multi-screen consuming; 67.20% television penetration and 31.04% other screens(Nielsen, 2015). They were more engaged in others multi-screen such as computer, mobile phone, and tablet. Even when watching television, they tend to use more multi-screen media at the same time and less focus on television.

Since media consumer behaviors have changed, traditional way of marketing was less effective. Marketer need to learn media insight of people in the multi-screen era. Otherwise, they couldn't follow the competitors to do marketing in this country that become more urbanization continuously and rapidly. For this reason, the study purpose to identify the change of screen media penetration trend in Thailand, to identify the difference of viewing behavior between before and after the emerging of multi-screens, and to identify key channels that reach the viewers effectively in multi-screen era.

The shift from television to multi-screen in Thailand study was organized to contribute an understanding on media consumption and multi-screen. It began with overall media penetration, television viewing pattern; multi-screen devices, and multi-screen-content. The provided information aimed to bring insights for business of those who want to adapt their approach for the emerging trend of multi-screen media.

CHAPTER 2
REVIEW OF LITERATURE

2.1 Media fragmentation

In Hong Kong, the Internet was the most consuming media among the young people. They spent time online one to three hours per day (Chan & Fang, 2007). The Internet becomes the source of information driven activities. Meanwhile, television that was a mainstream medium becomes the second consuming media. Its purpose was to retain the importance for news and current affairs.

In Vietnam, according to paper-based survey with 100 respondents in RMIT Vietnam Saigon South University from April to May in 2012, the number of young people viewed television decreases while Internet time spent were rapidly increasing in news reading time (Sang, 2013). They prefer to receive news and information on the Internet than television because of the interactive, fast and available characteristics. As the result, the overlap between the consumption of the Internet and television keeps increasing a lot.

2.2 Change in media habits

In England, E-Marketer has analyzed that most of the UK adults spend more than three hours 41 minutes per day online or on non-voice mobile and tablet activities in 2014, compared with the 3 hours 15 minutes spent watching television (O'Reilly, 2014). However, TV advertising's spending growth rate in the United Kingdom was expanding more than the Internet. It takes 14.5 percent year on year in the third quarter of 2013, compared with the 13.7 percent of growth in internet advertising.

For Indians, they spent one hour 36 minutes watching TV and one hour 35 minutes on their computers, while tablets become the least used device with about eight percent of their screen time (afaqs, 2014). Interestingly, mobile minutes in India which were two hours 42 minutes were greater than the global about 2 hours 27 minutes, even when total consumption of screen media in India was 6 hour 24 minutes that was lower than the global average about six hours 57 minutes. This highlights the increasing dominance of smartphones in the country.

2.3 The emerge of multi-screen

In USA, an experimental research on both young and old people shows that people switched between media at the extreme rate, averaging more than four switches per minute and 120 switches over the 27.5-minute study exposure (Brasel, 2011). In addition, the study shows that young people were tend to switch media more than the old people.

In Singapore, there were 21.2 percent of three-device users which were the highest usage across devices were on Wednesdays, Mondays, Tuesdays and Sundays (Tandon, 2015) and the bigger screen devices make the higher conversion rates for advertising as well. Mid-size smartphones and tablets were popular in terms of easy usage and IOS system still leads with a 64% mobile OS share. In term of advertising interaction, Singaporean preferred small phones and large tablets when they were interacting with banners in a game. Yet, for interstitial gaming ads, they preferred small tablets.

In Canada, Integrated multi-screen were changing consumers evolving media consumption habits. TV was a particular area of growth among screens, as 85% of respondents indicated that it would be important in three years, compared with 61% today (Nielsen, 2014). Multi-screen campaigns were more which account for 64% of campaigns, toward an integrated approach that represents just 36% of all activity today. People desire to see video across all screens, with 83% of people believing that it was the best suited on mobile and 92% on tablets. IAB Canada/Nielsen study indicates that 73% of Canadian plan to run multi-screen campaigns in the next three years.

Chinese people spend time on multiscreen about eight hours a day on TV, laptops, smartphones and tablets, compared with just seven hours spent by multiscreen users globally (Galpin, 2015). They use multiscreen as primary screen more than a TV and now taking up 2.8 hours daily. They will stop using only when in the TV prime-time viewing slots and in the evening smartphones retain the most used device. While laptops have higher usage than a TV then. In fact, for about a third of the time Chinese consumers were simultaneously engaging across more than one screen.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Research objectives

1. To identify the change of screen media penetration trend in Thailand
2. To identify the difference of viewing behavior between before and after the emerge of multi-screens
3. To identify key channels that reach the viewers effectively in multi-screen era

This study would be useful for brands to use media as channel to communicate to their consumers. The marketer could provide more details information on consumer media behavior to prepare the right execution and achieve marketing campaign. The research findings contribute an understanding on target market, and media insights on consumer behavior to help brands improve marketing strategy to communicate with their target audience.

3.2 Research Design

The research were conducted by using 2 research designs: exploratory research and descriptive research.

3.2.1 Exploratory research; The purpose of this research was to explore the media penetration trend and media habit of each screen media. The secondary research in this stage included a brief history of the industry, factors that affect growth and competition. The results obtained through this research method would be a guideline for the descriptive research design.

Gather information from AGB Nielsen Media Research (Thailand), an authorized television and others media research in Thailand, which were willing to share for the purpose of academic study. For another countries, gain data from the literature review from online sources.

3.2.2 Descriptive research; The purpose of this research was to identify and describe the current market situation, characteristics of the population, the effect of second screen media to television, and the change in media consuming behavior during multi-screen era. Each elements of multi-screen media behavior represent the how Thai people did any specific activities. Data was gained through questionnaire survey as primary source.

The research was conducted by using a survey questionnaire in forms of printed and online to collect data from 400 respondents. The questionnaires were pre-tested in a small group of respondents of no more than 10 people to avoid pitfalls of badly designed questionnaires such as complex, loaded, and leading questions. The feedbacks from the pre-test were taken in consideration in adjustment of questionnaire design.

The questionnaires included mostly with closed-ended questions and some open-ended questions. They were distributed to selected target groups of both users and potential users. The questionnaires were approximately take 20-30 minutes to complete.

This research require multi-screen media behavior of each demographic group distribution equally to represent the population of Thailand. Therefore, the quota sampling breakdown were planned followingThailand's population profiling;

1. Gender:
   Male 50%,
   Female 50%
2. Area Type:
   Bangkok 15%
   Upcountry 85%
3. Socioeconomic Status:
   D 45%
   C & B 40%
   A 15%
4. Age Group:
   12-19 yrs 18%
   20-29 yrs23%
   30-3925%
   40-49 yrs 15%
   50-59 yrs 19%
   50-54 yrs 15%
   50-59 yrs 16%

3.3 Identification of key research variables

There were 5 key variable for this research, which would be explained as follow.

Independent variable

1.) **Demographic**: Age group, socioeconomic status, gender, area type will be described people's characteristics in Thailand.

2.) **Screen media** including TV, mobile, and computer.

Dependent variable

1.) **Media penetration**: how many people were exposed to each media, and the quantity of screen media coverage?

2.) **Media behavior before and after the emerging of multi-screens**: The difference of each multi-screen viewing.

3.) **Relevancy of media insight**: the media affinity were describe by the statement of media insight.

3.4 Target population

The process of sample selection would be the non-probability, convenient sampling. For the survey questionnaires, they will be equally distributed to respondents who were representative of population of Thailand by assigned gender, age, income groups, and area type. Survey will be conducted to collect data from at least 200 respondents. Sampling plan will be managed following the characteristics.

Respondent profile:

1. Aged 12-59 years old
2. Own any of screen media devices such as television, smart phone, tablet, computer
3. SES ABCD, as defined by the National Statistical Office of Thailand (NSO)
   A: Monthly household income of 85,000 Baht or more per month
   B: Monthly household income of 50,000 to 85,000 Baht per month
   C: Monthly household income of 18,000 to 59,000 Baht per month
   D: Monthly household income of 18,000 Baht or less per month
4. Live in Thailand

3.5 Data collection plan

Part of questionnaires were collected in the field ensuring thatthere was no exclusion of consumers belonging to each particular age, area, and income group. To minimize bias, the locations of questionnaire distribution were diverse to various target groups in different locations. The channel for distribution included offline and online channel, to which of the target to obtain at least approximately 200 respondents via offline channel and approximately 200 respondents via online channel.

a. Offline channel

Printed questionnaires were distributed at various key area such as market and superstore. The questionnaires were accompanied with the Letter to Respondent and Respondent Manual. The respondent were able to complete the questionnaire on-sight with the assistance researcher representative providing instruction, clarification on definitions and checking on completion of the questionnaires; however, the questionnaire were completed by the respondent themselves.

b. Online channel

The online questionnaires were created by using an online survey web-based program called Google Forms. The link for online questionnaires was distributed to respondents in community website such as facebook.com. The respondents were motivated to complete the survey by having a chance to enter the lucky draw to win 5 Central gift vouchers worth 300 Baht each.

3.6 Data analysis plan

For secondary data, to observe Thailand media industry using the latest information from AGB Nielsen Media Research (Thailand), data will be applied by column table. This will show percentage of each screen media penetration trend in Thailand.

For the quantitative part, the SPSS (Statistical Package for the Social Sciences) will be utilized in order to find differences between groups, associations between variables, and other statistical analyzes as deemed appropriate following;

Frequency – The quantity of media performance crossing with the demographic group

Factors analysis – Which factors affect multi-screen media behavior

Correlation – Which attribute of media behavior has the relationship to the specific demographic group of people.

Demographic group and multi-screen can be both dependent variable and independent variable. Demographic group were dependent variable and multi-screen were independent variable when finding result of overall media penetration. Meanwhile multi-screen were dependent variable and demographic group were independent variable when finding result of the different consumer media habit toward multi-screen media.

CHAPTER 4
RESULTS AND DISCUSSION

Findings were conducted from both exploratory research and descriptive research which were secondary data and questionnaire survey. The results were conclude as follow;

4.1 Secondary data

For decades, Thai people were highly exposed through particular media, television. Television could solely reach 98% of population nationwide. The industry were dominated by only four analog commercial channels including Channel 3, Channel 5, Channel 7, Channel 9 which were the key touch points for brand to communicate to the their target audiences. By using roadblock strategy during prime time, brand's commercial spot could reach to enormous people. However, nothing last forever, the attention of people to television has been decreasing, and also the exposure of 4 analog commercial channels as the results of media fragmentation and emerge of multi-screen.

In 2013, there were 98% screens media penetration including television, computer, tablet, and mobile which divided into 79% television and 19% other screens (Nielsen, 2013). The trend of others screens tend to increase continuously in 2014 that there were 98% screens media penetration with 75% television and 23% other screens (Nielsen, 2014). In 2015, people were more multi-screen consuming; 67% television penetration and 31% other screens (Nielsen, 2015).

Multi-screen were not only affect key 4 analog commercial channels that were popular in the past, but also the media fragmentation that people were more selective in viewing TV channels. Previously, most people watch analog channels through antenna, while few people watch analog channels and extraordinary channels through local cable. In 2011, emerge of satellite which provide more than 100 channels as choice for audiences. In 2014, launching digital TV change television landscape these days. Digital TV acquired full support by National Broadcasting and Telecommunications Commission to maximize its exposure to household nationwide.

Those who had local cable and satellite could receive digital TV signal immediately. However, a lot of people, especially in upcountry, had only antenna. NBTC attempted to distribute free digital TV set-top-box at the late 2014 and early 2015 to contribute antenna users for watching digital TV.

4.2 Questionnaire Survey

4.2.1 Media Consumption

Media was intermediate for mass communication which was used for various circumstance such as company, institution, government, and personal. The consumption has changed over period of time. Thus, an understanding on media consumption would bring dramatically insight for implementation in Thailand.

4.2.11 Overall Media Penetration

Quantity of media exposures were evaluated in order to identify the importance of each media vehicle. To understand the digital which was driven by the rising of internet literacy, smart phone usage, and digital TV coverage.The questionnaires were designed to measure the difference of media consumption trendbefore launching digital TV in early 2014, and after launching digital TV in early 2016.

Table 4.1: Overall Media Penetration - PAST 1 WEEK

	Frequency		**Percent**		**Mean Values for indicated groups**		**t statistics**	**p-value (sig. 2-tailed)**
	Pre	**Post**	**Pre**	**Post**	**Pre**	**Post**		
Television	399	399	99.8	99.8	1.00[a]	1.00[a]	-	-
Facebook	170	222	42.5	55.5	.43	.56	-6.53	0.00
LINE application	137	170	34.3	42.5	.34	.43	-3.73	0.00
Youtube	114	163	28.5	40.8	.29	.41	-5.89	0.00
Billboard	102	100	25.5	25.0	.26	.25	0.63	0.53
Newspaper	100	92	25.0	23.0	.25	.23	0.82	0.01
Game application on mobile phone	59	70	14.8	17.5	.15	.18	-3.36	0.00
Bus / taxi advertising	66	64	16.5	16.0	.17	.16	0.50	0.62
Instagram	44	66	11.0	16.5	.11	.17	-4.82	0.00
Out of Home LCD	57	56	14.3	14.0	.14	.14	0.24	0.81
Radio	48	41	12.0	10.3	.12	.10	0.28	0.11
Portal website	37	38	9.3	9.5	.09	.10	-0.45	0.66
Magazine	25	17	6.3	4.3	.06	.04	0.71	0.03
Cinema	13	14	3.3	3.5	.03	.04	-0.38	0.71

To see the different attitude between two groups of pre-digital TV and post-digital TV penetration, paired-samples T Test were analyzed for interpretation.From the results, in 2016, TV was the most exposure media with 99.8% followed by Facebook 55.5%, Line application 42.5%, Youtube 40.8%, and billboard 25%. To compare post. To shows the difference media penetration between pre-digital TV and post-digital TV, mean of Facebook was significantly different (t = -6.53, p = 0.00). The same results were shown for Line application (t = -3.73, p = 0.00), Youtube (t = -5.89, p = 0.00), game application on mobile phone (t = -3.36, = 0.00). It meant that between pre-digital TV and post-digital TV, people significantly adopted more Facebook, Line application, and game application. On the other hand, when compared pre-digital and post-digital, some traditional media were significantly less adopt including newspaper (t = 0.82, p = 0.01) and magazine (t = 0.71, p =

0.03). Apart from print media significantly decreasing, radio had less penetration that 12.0% decrease to 10.3%. This meant that TV has been still the most important media due to the penetration. Others new media driven by the growth of internet literacy and smart phone usage has been increasing drastically and affect the usage of traditional media which some of them adapt the trend to shift platform into digital.

4.2.12 Television Viewing Behavior

As TV was the most penetration media, respondents were asked about their viewing pattern and time spent on television. From Table 4.2: TV Viewing Frequency (Days/week), result shows that 91% people view television 7 days/week, 2.8% 6 days/week, and 6.3% 5 days/week. This meant that television could reach 91% of Thai people nationwide every day.

From Table 4.3: TV Viewing Frequency (Hours/week), result shows that people view television more than 50 hours/week 3.8%, 40-49 hours/week 8%, 30-39 hours/week 21.8%, 20-29 hours/week 32.8%, 10-19 hours/week 28.8%, and less than 10 hours/week 5%. In other words, more than 66.3% of Thai population watch television more than 20 hours/week.

As nowadays, television signal could be carried through many ways, Table 4.4: Signal Use, shows that signal that people use to watch TV. Satellite was installed for viewing 37.5%, set top box 36.8%, cable TV 20.3%, and antenna 5.5%. This meant that there was only 5.5% of antenna viewer who couldn't be able to watch digital TV.

Table 4.5: CHANNEL - REGULARLY WATCH (At least 1 hour/week)

	Frequency	**Percent**
Ch.7 HD	383	95.8
Ch.3 HD	379	94.8
Ch.Workpoint	323	80.8
Ch.ONE HD	176	44.0
Ch.8	164	41.0
Ch.Mono29	121	30.3
Ch.MCOT HD	76	19.0
Ch.3SD	63	15.8
Ch.5	45	11.3
Ch.GMM25	40	10.0
Ch.Thairath	28	7.0
Ch.MCOTFamily	27	6.8
Ch.True4U	24	6.0
Ch.3Family	23	5.8
Ch.NationTV	20	5.0
Ch.ThaiPBS	20	5.0
Ch.TNN24	16	4.0
Ch.NBT	16	4.0
Ch.VoiceTV	15	3.8
Ch.NewsTV	15	3.8
Ch.Amarin	14	3.5
Ch.Now26	13	3.3
Ch.PPTV	7	1.8
Ch.BrightTV	6	1.5
Total	400	100.0

Since the launch of digital, Thailand media landscape has dramatically changed. The digital TV penetration has been rising drastically and gradually.In 2016 individual key players has number of audience as follows Table XX: Channel regularly watch (at least 1 hour/week); CH7 HD which simulcast analog and digital signal and had strong current consumer in suburb was still no.1 channel with 95.8% watch regularly (at least 1 hour/week). CH3 which also simulcast analog and digital signal and known as strong urban strong come closely at the second with 94.8% watch at least 1 hour/week. Workpoint which was new digital channel and had well-known gameshow & variety content continue penetrate digital TV industry with 80.8% audience who watch at least 1 hour/week. One HD, with strategy to provide content for urban & new generation segment expand 44% audience watch at least 1 hour/week. CH8, drama & variety channel increase 41% audience who watch at least 1 hour/week. Mono29, the only movie channel, sustain 30.3% audience who watch at least 1 hour/week. MCOT HD which simulcast analog and digital signal and was rank 3rd most viewed channel before digital TV launched, had audience only 19%. CH3 SD which was positioned to capture mass & upcountry segment, had 15.8% audience who watch at least 1 hour/week. CH5 which simulcast analog and digital signal and was rank 4th most viewed channel before digital TV launched, had only 11.3 % audience who watch at least 1 hour/week. GMM25 which try to avoid providing obsolete content by new style of drama & series, had 10% audience who watch at least 1 hour/week.

Even though industry raised, it didn’t guarantee the success of companies who provided the content throughout country, as a result of high competitiveness between 24 digital commercial channels and traditional analog channels. Considering that audiences became more selective, each channel need to strengthen the magnetic content to differentiate and be stand out from the others.

Digital signal wasn't only for television transmission, but also provide strong visual and audio when shifting to others digital media such as computer and mobile. Thus, people can view digital TV content more clearly through computer and mobile which weren't need to watch only real-time. From Table 4.6: TV viewing behavior, the results show that 55.3% agree with the statement 'I watch Real-time TV program only', while 44.8% experiences 'I watch both of Real-time TV program and Re-run TV program'.

4.22 **Multi-screen**

Since digitalization trend drove Thai people to have more internet literacy and smart phone, TV was not only medium to receive information anymore. Surrounding by many screen-media, this section analyzed the behavior of Thai people toward multi-screen. From Table 4.7: Multi-Screenincidence, the results show that majority (51.8%) of people experience multi-screen behavior. While 48.3% of people never experience multi-screen behavior.

4.221 Multi-screen devices

Table 4.8: Set of devices regularly used simultaneously

	Frequency	Percent
Television - Mobile Phone	184	88.9
Television - Computer	5	2.4
Television - Mobile Phone - Computer	18	8.7
Total	207	100.0

From Table 4.8: Set of devices regularly used simultaneously, which ask 207 respondents who had multi-screen incidence, the result show that media that regularly used simultaneously were 88.9% television and mobile, 2.4% television and computer, and 8.7%. In others words, 91.3% experienced 2 screens media simultaneously, and 8.7% experienced 3 screensmedia simultaneously.

To be more specific in importance of multi-screen, respondents were asked about device that they paid the most attention. From Table 4.9: Device paid the most attention, the result show that 71.5% television, 25.1% mobile phone, and 3.4% computer were devices paid the most attention respectively.

Table 4.10: Devices used to watch TV

	Frequency		**Percent**		**Mean Values for indicated groups**		**t statistics**	**p-value (sig. 2-tailed)**
	Pre	Post	Pre	Post	Pre	Post		
Television	400	400	100.0	100.0	1.00a	1.00a	-	-
Mobile phone	89	157	22.3	39.3	.22	.39	-6.294	.000
Computer	23	29	5.8	7.3	.06	.07	-1.177	.240

To see the different attitude between two groups of pre-digital TV and post-digital TV device used, paired-samples T Test were analyzed for interpretation.From the results, in 2016, other than 100% people used television, 39.3% they carried through mobile phone, and 7.3% computer respectively. Besides, mobile phone device used was significant different between pre-digital TV and post-digital TV group ($t = -6.29$, $p = 0.00$). From percentage of devices used both mobile phone and computer were increasing by 22.3% to 39.3% and 5.8% to 7.3% respectively.

Table 4.11: Mobile phone - Activity doing on other devices

	Frequency	Percent
Chat about things not related to what you were watching	133	84.7
Update friends's situation on social media	132	84.1
Post own status on social media about things not related to what you were watching	86	54.8
Post on friend's social media about things not related to what you were watching	53	33.8
Play game	35	22.3
Search about things not related to what you were watching	25	15.9
Chat about what you were watching	22	14.0
Post on friend's social media about what you were watching	12	7.6
Listen to music/ Watching music video	11	7.0
Work	9	5.7
Search about things which you have just seen in TV program	6	3.8
Join a activity with TV program you were watching	4	2.5
Total	157	100.0

To be more specific, it was need to understand multi-screen behavior by identifyingwhatpeople were doing on other device simultaneously, respondents were asked based on devices used. From Table 4.11: Mobile phone –Activity doing on other device, the result show that the most common activities were 84.7% chat about things not related to what you were watching, 84.1% update friends's situation on social media, 54.8% post own status on social media about things not related to what you were watching, 33.8% post on friend's social media about things not related to what you were watching, 22.3% play game, 15.9% search about things not related to what you were watching, 14% chat about what you were watching. This meant that the majority of activity were using social media and things not related to what they were watching. People were distracted others factors that not belong to television engagement.

Table 4.12: Computer - Activity doing on other devices

	Frequency	Percent
Post own status on social media about things not related to what you were watching	16	55.2
Update friends's situation on social media	13	44.8
Search about things not related to what you were watching	10	34.5
Work	7	24.1
Post on friend's social media about things not related to what you were watching	6	20.7
Chat about things not related to what you were watching	5	17.2
Play game	5	17.2
Chat about what you were watching	5	17.2
Search about things which you have just seen in TV program	3	10.3
Listen to music/ Watching music video	3	10.3
Post on friend's social media about what you were watching	1	3.4
Join a activity with TV program you were watching	0	0.0
Total	29	100.0

From Table 4.12: Computer –Activity doing on other devices, the result show that the most common activities were 55.2% post own status on social media about things not related to what you were watching, 44.8% update friends's situation on social media, 34.5% search about things not related to what you were watching, 24.1% work, 20.7% post on friend's social media about things not related to what you were watching, 17.2% chat about things not related to what you were watching, 17.2% play game, 17.2% chat about what you were watching. The statement of computer users were less extreme compared to mobile users. Yet, common activities were similar that were about using social media and things not related to what they were watching. Work was the 4^{th} top activity of computer users while was 10^{th} activity of mobile users.

Table 4.13: Reason for activity doing on other devices

	Frequency	Percent
To pass the time during TV commercial break	138	66.7
To update the current situation	95	45.9
To kill boredom while working	76	36.7
To keep contacts with friends and family	72	34.8
To keep contacts with clients and colleagues	30	14.5
Game addiction	23	11.1
Total	207	100.0

To extend results of activity doing on other devices, considering why they need to do other thing while watching television were important. From the Table 4.13: Reason for activity doing on other devices, the results show that 66.7% to pass the time during TV commercial break, 45.9% to update the current situation, 36.7% to kill boredom while working, 34.8% to keep contacts with friends and family, 14.5% to keep contacts with clients and colleagues, 11.1% game addiction. The 1st and 3rd reason were about doing things that was more fun instead. The 2nd and 4th reason were related to real-time social media involvement.

4.222 Multi-screen content

Even though a lot people adoptedmulti-screen behavior and were distracted by real-time television, it didn't mean that each television program real-time contribute the same level of activity doing on other devices. From Table 4.14: Using other device while watching all or selected content, the results show that 66.2% people use other device while watching all content, and 33.8% people use other devices while watching selected content.

Table 4.15: TV content used other devices while watching

	Frequency		Percent		Mean Values for indicated groups		t statistics	p-value (sig. 2-tailed)
	Content Watch	Content Used Other Devices	Content Watch	Content Used Other Devices	Content Watch	Content Used Other Devices		
News	36	32	51.4	45.7	0.09	0.08	2.01	0.05
Thai drama	32	28	45.7	40.0	0.08	0.07	2.01	0.05
Music	22	21	31.4	30.0	0.06	0.05	1.00	0.32
Game show	13	11	18.6	15.7	0.03	0.03	1.42	0.16
Variety	11	9	15.7	12.9	0.03	0.02	1.42	0.16
Documentary	11	9	15.7	12.9	0.03	0.02	1.42	0.16
Sports	19	8	27.1	11.4	0.05	0.02	3.36	0.00
Sit-com	8	6	11.4	8.6	0.02	0.02	1.42	0.16
Foreign drama	7	5	10.0	7.1	0.02	0.01	1.42	0.16
Movie	10	5	14.3	7.1	0.03	0.01	2.25	0.03
Cartoon	6	4	8.6	5.7	0.02	0.01	1.42	0.16
Entertainment update	6	4	8.6	5.7	0.02	0.01	1.42	0.16
Talk show	6	4	8.6	5.7	0.02	0.01	1.42	0.16
Cooking	5	4	7.1	5.7	0.01	0.01	1.00	0.32
Travel	5	3	7.1	4.3	0.01	0.01	1.42	0.16

Respondents were ask about program content that they watch and content used others devices. The top watching content were news 51.4%, Thai drama 40%, and sports 27.1%. While the most content used other devices were news 45.7%, Thai drama 40%, and sport 30%. To see the different attitude between two groups of content watch and content used other devices, paired-samples T Test were analyzed for interpretation.From the results, sports content was significant different between content watch and content used other devices group ($t = 3.36$, $p = 0.00$). Others content were news ($t = 2.01$, $p = 0.05$), and Thai drama ($t = 2.01$, $p = 0.05$). This meant that sports, news, and Thai drama were content that people watch and used other devices the least.

Table 4.16: TV content not used other devices

	Frequency	Percent
Soap opera	30	42.9
Football	18	25.7
Action movie	16	22.9
Social news	14	20.0
Boxing	8	11.4
Economic news	7	10.0
Korean series	6	8.6
Political news	6	8.6
Action foreign serie	6	8.6
Volleyball	5	7.1
Horror movies	5	7.1
Historical documentary	5	7.1
Animal documentary	5	7.1
Romantic movie	4	5.7
Detective foreign serie	3	4.3
Autobiography documentary	3	4.3
Place documentary	2	2.9
Scifi movie	2	2.9
Total	70	100.0

To be more specific about it was need to clarify the content that people didn't use other devices while watching. From Table 4.16: TV content not used other devices while watching, the results show that soap opera 42.9%, football 25.7%, action movie 22.9%, social news 20%, boxing 11.4%, economics news 10%, Korean series 8.6%, political news 8.6%, action foreign series 8.6%, volleyball 7.1%, horror movies 7.1%, historical documentary 7.1%, animal documentary 7.1% were content that people didn't used other devices while watching respectively. Magnetic program type which were hardly skip or distracted were related to excitement and addiction content.

4.223 Multi-screen behavior

As people became more selective in watching television, it did not means that they totally watched television less through various devices. The respondents were asked if they watch television less and more compared with digital-TV. From Table 4.17: Change of TV watching proportion compared with pre-digital TV, the results show that 53% increasing, 41.8% same, and 5.3% decreasing of TV watching proportion compared with pre-digital.

Table 4.18: Increasing - Reason for change of TV watching proportion

	Frequency	Percent
More various programmes	159	75.0
Better quality of programmes	133	62.7
More programmes I like	118	55.7
Programe schedule were convenient to watch	72	34.0
More favourite hosts/ actors/ actresses/ news reporters	65	30.7
More updated content	59	27.8
More straight forward, undistorted content	50	23.6
Total	212	100.0

The majority of people increase their viewing proportion which was need to specify factors that affect this behavior. From Table 4.18: Increasing - reason for change of TV watching proportion, the results show that they increase watching proportion because; 75% more various programmes, 62.7% better quality of programmes, 55.7% more programs I like, 34% program schedule were convenient to watch, 30.7% more favourite hosts/ actors/ actresses/ news reporters, 27.8% more updated content, 23.6% more straight forward, undistorted content.

Table 4.19: Same - Reason for change of TV watching proportion

	Frequency	Percent
My favouriteprogrammes match my convenient time like before	130	77.8
Familiar with this channel	118	70.7
Have hosts/ actors/ actresses/ and news reporters like before	81	48.5
Total	167	100.0

From Table 4.19: Same - reason for change of TV watching proportion, the results show that people remained the same TV watching proportion because;77.8% my favorite programmes match my convenient time like before, 70.7% familiar with this channel, 48.5%have hosts/ actors/ actresses/ and news reporters like before.

Table 4.20: Decreasing - Reason for change of TV watching proportion

	Frequency	Percent
Change to use social media instead	12	57.1
No new and different programme format	8	38.1
Not interesting content	7	33.3
Lots of TV commercials	7	33.3
Not updated news, content	4	19.0
Have same old hosts/ actors/ actresses/ and news reporters	3	14.3
Lots of restrictions which make programmes not fun and not straight forward	2	9.5
Less various programmes than other channels	1	4.8
Total	21	100.0

From Table 4.20: Decreasing - reason for change of TV watching proportion, the results show that people decrease their watching proportion because; 57.1% change to use social media instead, 38.1% No new and different programme format, 33.3% not interesting content, 33.3% lots of TV commercials, 19% not updated news, content, 14.3% have same old hosts/ actors/ actresses/ and news reporters, 9.5% lots of restrictions which make programmes not fun and not straight forward, and 4.8% less various programmes than other channels.

Each screen devices were used depend on the circumstance of individual's a day in the life. To identify the occasion of watching television could gain the insight to reach each device differently. From Table 4.21: Television – occasion of watching TV, the results show that they use occasion of watching TV through TV 100% at home, 3.25% at office/ school, 2.25% other (outside the home), and none while travelling respectively.

From Table 4.22: Mobile phone - occasion of watching TV, the results show that they use occasion of watching TV through computer93.1% at home, 44.6% at other (outside the home), 43.3% while travelling , and 41.4% at office/ school respectively.

. From Table 4.23: Computer - occasion of watching TV, the results show that they use occasion of watching TV through mobile phone 75.2% at home, 24.1% at office/ school, 24.1% other (outside the home), and 3.4% while travelling respectively.

Table 4.24: Television –reason for using device to watch TV

	Frequency	Percent
Easy and convenient to use	352	88.0
Big screen and clear picture	331	82.8
Better sound	240	60.0
More stable signal	198	49.5
Have an activity with family/friend	153	38.3
Total	400	100.0

The respondents were asked to clarify factors that affect why they use each device to watch TV. From Table 4.24: Television –reason for using device to watch TV, the results show that they use television to watch TV because; 88% easy and convenient to use, 82.8% big screen and clear picture, 60% better sound, 49.5% more stable signal, and 38.3% have an activity with family/friend.

From Table 4.25: Mobile phone–reason for using device to watch TV

	Frequency	Percent
Can watch TV anywhere and anytime	135	86.0
Convenient to carry	110	70.1
Can watch both Real time and Re-run programmes	81	51.6
Can watch favouriteprogrammes even I am outside	77	49.0
Not bother other people while watching TV	72	45.9
Can watch several favourtieprogrammes simultaneously from several devices	41	26.1
Can watch TV programme in private alone	32	20.4
Can be more selective for TV programmes I want to watch	26	16.6
Total	157	100.0

From Table 4.25: Mobile phone–reason for using device to watch TV, the results show that they use mobile phone to watch TV because; 86% can watch TV anywhere and anytime, 70.1% convenient to carry, 51.6% can watch both Real time and Re-run programmes, 49% can watch favorite programmes even I am outside, 45.9% not bother other people while watching TV, 26.1% can watch several favorite programmes simultaneously from several devices, 20.4% can watch TV program in private alone, and 16.6% can be more selective for TV programmes I want to watch.

Table 4.26: Computer–reason for using device to watch TV

	Frequency	Percent
Can watch TV anywhere and anytime	23	79.3
Can watch both Real time and Re-run programmes	22	75.9
Can watch favouriteprogrammes even I am outside	16	55.2
Convenient to carry	12	41.4
Can be more selective for TV programmes I want to watch	10	34.5
Not bother other people while watching TV	9	31.0
Can watch several favourtieprogrammes simultaneously from several devices	9	31.0
Can watch TV programme in private alone	6	20.7
Total	29	100.0

From Table 4.26: Computer–reason for using device to watch TV, the results show that they use computer to watch TV because; 79.3% can watch TV anywhere and anytime, 75.9% can watch both Real time and Re-run programs, 55.2% can watch favorite programmes even I am outside, 41.4% convenient to carry, 34.5% can be more selective for TV programmes I want to watch, 31% not bother other people while watching TV, 31% can watch several favorite programmes simultaneously from several devices, and 20.7% can watch TV program in private alone.

CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS

5.1 Key media trend

In 2016, the growth of internet was highly obvious that everyone know it without research. People who connect online were not limited to the young, urbanite, and elite, yet everyone does. It's surprising that some part of online media has significantly increase for the last 2 years; majority 55.5% of Thai people use Facebook, 42.5% have Line application which mostly connect via smart phone, and 40.8% watch Youtube which was the new source of video content. Meanwhile, traditional media including newspaper and magazine were significantly decreased. Many print media companies already aware this problem that they try to shift their content of print to online channel. When internet users rise, it come up with the assumption that TV, a long established mass media, decline which was not true. People still view TV at the same level but shift behavior toward it. Since digital TV has launched, the transmission that carry signal were diversified that antenna household was no longer majority. People were selective to watch many channels that not need to watch only 4 analog channels. Even though digital TV industry rise, a lot of them fail because of the high competition. Some of them can stand out from the others including Ch7 HD, Ch3 HD, ChWorkPoint, ChOne HD, Ch8, and ChMono29.

5.2 Multi-screen insight

It has normally seen that people do others things while watching television and people don't try to watch real-time program that they watch re-run instead. Screen for used by Thai people was only television for long time that they seek for updating news, entertainment, and knowledge. However, source of information were shift to online media that was more flexible and selective in term of content and time. Majority of people experience multi-screen incidence. For those who experienced multi-screen, 88.9% regularly use television and mobile phone simultaneously, 8.7% used 3 screen devices including television, mobile phone, and computer at the same time. Interestingly, those who use mobile phone to watch TV significantly increase for the past 2 years. The main activity that they use mobile while watching television was related to social media. While computer user activity while watching television was also related to social media and work. Main reasons to use other devices were about to pass commercial break and update news. Not all multi-screen users user other devices to all content. There were 33.8% of them do it for selected content. The contents that were not likely to use other devices were news, Thai, drama, and sport that provide the senses of excitement and addiction. With multi-screen behavior, 53% watch TV content more, 41.8% same, and 5.3% less. People watch TV more because of more and interesting programs. People watch TV at same level because of familiarity with the same time and content. People watch TV less because of the shift to social media and not interesting programs. People watching TV by TV because of convenience and big screen. On the other hand people watch TV by mobile and computer because they can watch anywhere and anytime. Occasion for using TV was at home only. Computer was more at office, school and outside. Mobile was for everywhere.

5.3 Managerial implications

5.3.1 For media owner

Since media industry has been fragmented, there would be no more easy time for any media owner. Previously, leading media owner in each category such as television channel 7, Thai Rath newspaper, Praew magazine, 93.0 Cool Fahrenheit radio were enjoy profit in what they were doing, but there were no comfort zone for them today. Media outlet has been increasing drastically as choice for audience to select. Main TV channel battlefield expand from 4 competitors to 24 competitors. Besides, the rise of internet media change consumer behavior to consume media the same pathway.

Media owner in each category need to follow their audience thoroughly. If they don't read hard copy anymore, find your competitive advantage and offer them in soft copy. If TV rating drop, less profit from commercial spot as people don't watch real-time, they could leverage their magnetic content and cooperate with Youtube to make profit from online media.

At the end, every decline of traditional media will go to online media. Every media owner will be more similar with the same platform. What was different was the content providing to consumer. It will never be easy for leading traditional media owner in their category to dominate the online media, because of too many competitors. All they need to do was to be differentiate and stand out from the others. To do it, they must provide the magnetic content to the segment that could be achieve and defend from anyone.

5.3.1 For marketer

There will be no more roadblock strategy to broadcast commercial spot at prime time of channel 3 and channel 7 will reach at least a quarter people nationwide. Media fragmentation cause a lot of choice of media. Consumer were changed to select media only what they want which different person, different taste. Media selection was still base on target audience. Consumer of some product, still watch TV through TV real-time. Some consumer may like to watch TV content through mobile. The marketer need to understand beyond the top penetration media, to know a day in a life of their target audience. And figure ways to blend in the branding message to each touch point of them. In addition, as people were more capable to skip commercial, the branding message could be ignore and worthless easily. Thus, it was crucial to understand not only where they were and communicate at the right place, but also what they want and communicate at the right need. Since social media raised, many brand try to approach the consumer and offer product. However, a lot of campaign fail because of people select not to receive commercial. The only solution for communication in the era of social media and multi-screen was to offer the mutual things that not just commercial but things that contribute value for them.

5.4 Research utilizations

This independent study would lead both side of media owner and marketer who invest in media to understand more about media trend, change in consumer behavior, the effectiveness of digital signal, and the emerging of multi-screen.

Moreover, results were not only used to deeply understand media perspective to do the managerial decision making, but also could be utilized to make further study about media. As people drastically changed their consumer journey and the way to receive media in daily life, the later study could bring this study to compare the different of media behavior in the future. Limitation on study was the sample skepticism as the result of time constraint and budget. Large enterprise could fill the potential by increasing sample size and distribution of respondent who live in upcountry would make the quota sampling represent the population of Thailand more effectively.

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APPENDICES

APPENDIX A
SUMMARY OF TV VIEWING BEHAVIOR

Table4.2: TV Viewing Frequency (Days/week)

	Frequency	Percent
5 Days/Week	25	6.3
6 Days/Week	11	2.8
7 Days/Week	364	91.0
Total	400	100.0

Table4.3: TV Viewing Frequency (Hours/week)

	Frequency	Percent	Cumulative Percent
<10 Hours/Week	20	5.0	5.0
10-19 Hours/Week	115	28.8	33.8
20-29 Hours/Week	131	32.8	66.5
30-39 Hours/Week	87	21.8	88.3
40-49 Hours/Week	32	8.0	96.3
>50 Hours/Week	15	3.8	100.0
Total	400	100.0	

Table 4.4: TV signal use

	Frequency	Percent	Cumulative Percent
Sattlelite	150	37.5	37.5
Set Top box	147	36.8	74.3
Cable TV	81	20.3	94.5
Antenna	22	5.5	100.0
Total	400	100.0	

Table4.6: TV viewing behavior

	Frequency	Percent
I watch Real-time TV program only	221	55.3
I watch both of Real-time TV program and Re-run TV program	179	44.8
Total	400	100.0

APPENDIX B
MULTI-SCREEN INCIDENCE

Table 4.7: Multi-Screen - Incidence

	Frequency	Percent
Yes	207	51.8
No	193	48.3
Total	400	100.0

Table 4.9: Device paid the most attention

	Frequency	Percent
Television	148	71.5
Mobile phone	52	25.1
Computer	7	3.4
Total	207	100.0

APPENDIX C
MULTI-SCREEN CONTENT

Table 4.14: Using other device while watching all or selected content

	Frequency	Percent
All content	137	66.2
Selected content	70	33.8
Total	207	100.0

APPENDIX D

MULTI-SCREEN CONTENT

Table 4.17: Change of TV watching proportion compared with pre-digital TV

	Frequency	Percent
Increasing	212	53.0
Same	167	41.8
Decreasing	21	5.3
Total	400	100.0

Table 4.21: Television - Occasion of watching TV

	Frequency	Percent
Home	400	100
Office/ school	13	3.25
Other (outside the home)	9	2.25
While travelling	0	0

Table 4.22: Mobile phone - Occasion of watching TV

	Frequency	Percent
Home	118	75.2
Office/ school	65	41.4
Other (outside the home)	70	44.6
While travelling	68	43.3

Table 4.23: Computer - Occasion of watching TV

	Frequency	Percent
Home	27	93.1
Office/ school	7	24.1
Other (outside the home)	7	24.1
While travelling	1	3.4

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