Tobacco Packaging as Communication Tool: The Effectiveness of Tobacco Plain Packaging on Young People's Perception

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Abstract

Thailand has been one of the countries which have implemented the world's most advanced tobacco marketing communications control policies. Tobacco packages are the only tool used by tobacco companies to inform about the brand towards new generation smokers. This experimental research explores attitudes of young people, aged 15-24 years old on backgrounds of cigarette packages, both plain and those with 85% Pictorial Health Warning (PHW). The result suggested that plain packages may reduce the incentive attraction among young people. The most effective color was dark olive green or Munsell 10Y 5/6 combined with 85% PHW of oral cancer because it enhanced the negative perception. The plain package does not only reduce the

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incentive attraction on the cigarette package but also increases the effectiveness of the PHW's value and policy.

Keywords: Packaging and Labelling, Health Warning, Tobacco Control Policy, Marketing Communication

Introduction

Young People: The New Generation Smoker

The tobacco epidemic is one of the biggest public health threats the world has ever faced. Tobacco consumption is the main cause of death of the world's population, killing more than 8 million people per year. More than 7 million of those deaths are the result of direct tobacco use while around 1.2 million are the result of non-smokers being exposed to second-hand smoke. Moreover, tobacco kills up to half of its users, of 80% from the 1.1 billion smokers worldwide live in low- and middle-income countries, where the burden of tobacco-related illness and death is the heaviest of human loss as Thailand is among those countries (World Health Organization, 2019). According to the latest statistics in 2017, 10.7 million Thai people aged 15 years old and up consumed tobacco. The average age that started smoking was 18 years old. In overall, the smoking situation of Thai people of all ages has been decreased except the young groups aged between 19-24 years old. It is also likely that the rate of smoking among new smokers is not reduced at all (Pitayarangsarit & Punkrajang, 2018). Each year, about 200,000-300,000 new generation smokers in Thailand are replacing the adults who smoke and lost their lives. Therefore, young adults are becoming an important target group for tobacco companies marketing strategy.

Packaging and Labelling: The New Policy for Tobacco Control

Thailand has been one of the countries which implementing the world's most advanced tobacco control policies, particularly the control policy on advertising and all types of marketing communications. The packaging is the only marketing communication tool that tobacco companies use to communicate and promote the information about the brand and identity of the cigarettes to the consumers, especially the young adults who are new generation smokers.

Thailand was the first country in the Asia and Pacific region to join the WHO Framework Convention on Tobacco Control (FCTC), in 2003. Since then, Thailand has been trying to implement the tobacco control policy under FCTC article 11 (Packaging and Labelling). In 2005, Thailand became the fourth country in the world to replace text-only warnings with Pictorial Health Warning (PHW) on 50% of both the front and back of tobacco packs in order to reduce the advertising space on tobacco packaging. Later, in 2009, the PHWs were expanded to 55 percent. In 2013, the Ministry of Public Health (MOPH) issued a policy expanding the PHWs from 55% to 85%. Moreover, in 2019, Thailand becomes the first in Asia to enforce the tobacco plain packaging or standardized packaging, and by December 2019, tobacco distributors and retailers have to phase out all stocks of older cigarette packages.

However, according to a literature review about plain packages from Australia, there is the limitation of the study by allowing the samples to view the colors of the cigarette package through the computers that enduring the discrepancies in the color tested online. There should be an experiment using physical mock-up instead of an online graphic experiment (Department of Health and Ageing, 2011). Also, because the color is related to the culture and context of the

society, each country should research the appropriate colors according to the cultural differences to effectively use the suitable color (Gallopel-Morvan, Gabriel, Le Gall-Ely, Rieunier, & Urien, 2013). Besides, according to the literature review, comparative research of the efficiency between the plain pack and the branded pack shown less, only from 7 out of 19 studies aim to emphasize on the awareness of the plain package (Drovandi, Teague, Glass, & Malau-Aduli, 2019).

Therefore, this research aims to study the unattractive abstinent colors on the mock-up plain package and to compare the effectiveness of the plain package with the 85% PHW and branded package. The result of the study would be useful for supporting the implementation of the plain package in Thailand and arrange into the guideline and legislation for other countries.

Objectives

1. To study the unattractive abstinent colors on the mock-up plain package among young people.

2. To compare the effectiveness of the plain package with the 85% PHW and branded package among young people.

Literature Review

Tobacco Packages as a Marketing Communication

Percy (2018) defined that "marketing communication is the planning and execution of all types of advertising-like and promotion-like messages selected for a brand, service or company". According to Percy (2018), packaging is a critical element in marketing communication as it plays an important role for building and reinforcing positive brand attitude, identity, and equity. While Rossiter, Percy & Bergkvist (2018)

indicated that in modern marketing communication, all possible contact points with potential and current consumers are regarded as opportunities to communicate about the brand. The key communication objectives for all marketing communication are to attract attention and provide brand's image as well as brand awareness. Moreover, Clow & Baack (2014) indicated that packaging represents the final opportunity to make an impression on consumers. The primary purposes of packages and labels are not only to protect product but also communicate marketing message. Also, a typical label contains the company's logo and the brand name. A company designs label to build consumers' interest and confidence in making the purchase.

Therefore, the packages as a product became the first recognition that the consumers perceived. The beautiful packages help to promote sales, filled with messages, including the product information, brand identity, and images, that manufacturers communicate to their consumers. Consequently, the packages are a marketing tool that conveys the information and image of the product. The innovative package helps create value in the product as well as to attract the consumers.

Although tobacco companies deny that package is not used as a marketing tool to promote sales, it is a tool that builds brand loyalty among smokers. But the internal documents of the tobacco companies show that the packages as a marketing communication tool used to target young adults (Hammond, 2010; Moodie & Hastings, 2010; Wakefield, Morley, Horan, & Cummings, 2002), whereas the tobacco companies are well aware that the packages affect the consumer purchasing decision. Therefore, research and development base the content on the color of the packages. Because the tobacco companies believe that the color of the cigarette pack is affecting the feelings and perceptions

of the consumers, they use various colors to create awareness of the product and to develop the packages by using colors to convey the taste of the cigarettes. For example, RJ Reynold uses green to represent various cigarette flavors, such as menthol, cool and fresh. According to RJ Reynold's research, the color white should be applied more on the package space of the cigarette, reducing the use of red strips, and using more light brown which has helped convey the consumer perception that the cigarette is a good product and creates more energy when smoking (Lempert & Glantz, 2016).

A member of the Framework for Tobacco Control Convention (FCTC) since 2003, Thailand has been one of the countries who implemented the world's most advanced tobacco control policies. Especially the tobacco control measure, which is the 85% PHW on both sides of the cigarette packages. The government has prohibited all forms of advertising including bans on television, radio, and printed media, as well as marketing communication in public relations, sales promotion, point of sales, direct marketing, and marketing through a computer network.

The tobacco control policy mentioned above had regulated tobacco companies to use the package as a communication tool for the brand to reach the target group, especially young adult smokers. The smokers who started smoking before the age of 18 are commonly difficult to give up (Shankleman, Sykes, Mandeville, Di Costa, & Yarrow, 2015). The tobacco companies, therefore, create the packages with color, font, shape, texture, and logos that can attract new smokers. Cigarette package is a marketing tool used to communicate the brand image, character, and identity that targeted toward the consumers especially young smokers and may increase the appeal of smoking (Drovandi et al.,

2019; Freeman, Chapman, & Rimmer, 2008; Germain, Wakefield, & Durkin, 2009; Hammond, 2010; Hammond, White, Anderson, Arnott, & Dockrell, 2013; Lacave-Garcia et al., 2018; Moodie & Hastings, 2010; White, Hammond, Thrasher, & Fong, 2012; Wakefield et al., 2002).

Plain Packaging: The Policy Reducing Package Attractiveness

Plain cigarette packages are the tobacco control measure under the FCTC suggested by WHO to the member country. The FCTC article 11: packaging and labelling of tobacco products cited that parties should consider adopting measures to restrict or prohibit the use of logos, colors, brand image or promotional information on packaging other than brand names and product names displayed in a standard color and font style (plain packaging). This may increase the noticeability and effectiveness of health warnings and messages, prevent the package from detracting attention from the main message, and address industry package design techniques that may suggest that some products are less harmful than others.

Plain packages take effective package design one step further by removing all logos, colors, brand images or promotional information from the package, and maintain brand names and product namesdisplayed in a standard color and font style (Framework Convention Alliance, 2008).

A plain pack will help reduce the incentive attraction, especially among young adults (Hammond, 2010; Moodie, Ford, Mackintosh, & Hastings, 2012) as well as to reduce the positive feelings of the consumers toward the packages (White et al., 2012). However, the color is related to the perception of meaning and the connection to the culture of each country. Background color on a plain package, therefore, should be considered in the context of the country focus on the tobacco control among the young adults.

Australia is the first country who implements the measure of plain packaging in 2012. The objectives of plain packaging are to 1) reduce the attractiveness of the tobacco products; 2) eliminate the tobacco packages as a form of advertising and promotion; 3) eliminate the misleading information by addressing the package design techniques that may suggest that some products are less harmful than others; and 4) increase the noticeability and effectiveness of health warnings (Wakefield et al., 2015). This measure is followed by several countries, such as the United Kingdom, France, Ireland, Norway, New Zealand, and Hungary, while other member countries of the FCTC are also in the process of pushing this implementation.

In Australia, the background color on a plain pack is Olive or Pantone 448C (The Office of Parliamentary Counsel, Canberra, 2018). This color was followed by other countries, such as the United Kingdom, except Hungary that uses the Pantone 448M (World Health Organization, 2018).

Currently, Thailand has implemented 85% PHW policy and becomes the first country in Asia and the eleventh in the world to introduce the plain packages controlled policy. As per Thailand's new legislation on tobacco control policy, by September 2019 all tobacco products will have plain packages. The introduction of the plain package is expected to further boost the country's tobacco control efforts targeting the current and new users.

According to the study about plain packages from Australia, the first nation to implement plain packaging of tobacco products, there is the limitation by allowing the samples to view the plain package through the computers that enduring the discrepancies in the color tested online. Therefore, this research was conducted by experimental research.

Methodology

Participants

A total of 160 young adults aged from 15-24 years, willing to be a participant in the study, were employed into the study with purposive sampling under the following criteria (see Table 1):

(1) Gender criteria: Male and female

(2) Smoking behavior criteria: Smoking and Non-smoking

(3) All participants were not visually impaired or pertain color blindness condition

Table 1 Selection Criteria and Participants

Group No.	Gender	Smoking Behavior	Participants
1	Male	Smoking	40
2	Male	Non-smoking	40
3	Female	Smoking	40
4	Female	Non-smoking	40
	Total		160

Procedures and Measures

Experiment 1: To study the unattractive colors used on the plain package

1. The research team set the experimental room at the RMUTT Color Research Center. After finding the unattractive colors from the Preliminary Study, the research team prepared 3 Munsell color sheets for each 3 color groups: dark olive green, brown, and gray. Then the research team arranged the experimental room with controlled interior lighting. The participants entered the room, were shown the color sheets and selected the most unattractive colors, except the white and

black, which were achromatic colors. The 3 selected colors were similar to the literature review which found that the color group used in the study were dark olive green, brown and gray (Department of Health and Ageing, 2011; Gallopel-Morvan et al., 2013; Lacave-Garcia et al., 2018) as well as white and black (Silpasuwan et al., 2013)

2. The research team used the selected colors as the background colors of the mock-up with the image of oral cancer and lung cancer as the 85% PHW. These 9 mock-ups were using the same fonts and printed materials as the branded pack.

3. For each color group, the participants chose the mock-up that they thought have the background color that made them not wanting to purchase the cigarette.

Experiment 2: To compare the effectiveness of plain package and branded pack containing 85% PHW

1. The research team created 6 mock-ups with the image of oral cancer and lung cancer as the 85% PHW. Three mock-ups with dark olive green, brown, and gray, the color selected from Experiment 1, and other two mock-ups with white, black, and one branded pack (see Figure 1 and 2).

2. The research team used the techniques of Pairwise comparison and Two alternative force choice by randomly selecting 2 packs at a time. In term of Naturalistic Study, the participants allowed the researchers to go to the participants' workplace and house without any manipulation such as lighting in order to observe and collect data from the natural habitat. In this stage, the participants compared the mock-ups and then selected the one that they would not consider purchasing, which would have a score of One. Moreover, the research team randomly placed the position of each mock-up to the left and right side to prevent

the bias from choosing the mock-up from the side that the participants feel comfortable with.

3. After the experiment, the research team asked the participants about the personal perceptions and the reason why they selected that color.

Figure 1 85% PHW of Oral Cancer Mock-ups of Plain Packs and Branded Pack

Figure 2 85% PHW of Lung Cancer Mock-ups of Plain Packs and Branded Pack
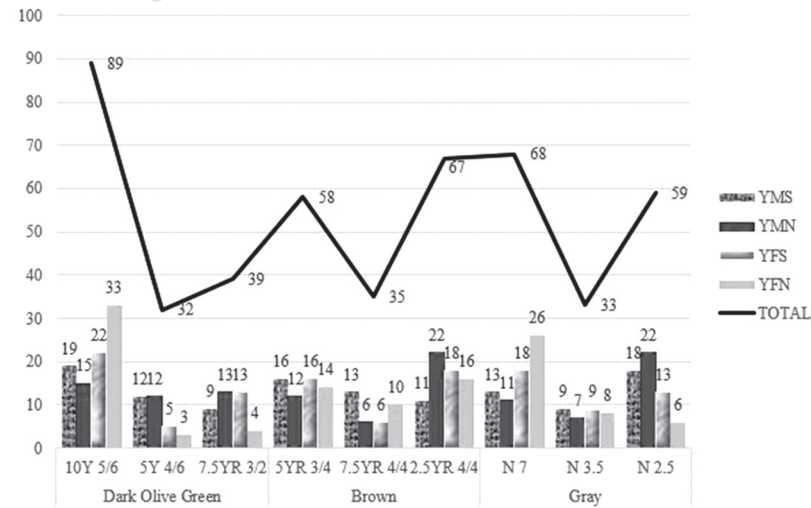
Results

Unattractive Colors on Plain Packs

The results of the overall research found that the young adults chose dark olive green 10Y 5/6, brown 2.5YR 4/4, and gray N7 as unattractive colors (see table 2 and figure 3).

The research team used the selected colors to create mock-up for further research.

Table 2 Comparison Results of Unattractive Colors on Plain Packages

Color	Dark Olive Green			Brown			Gray		
Participant	10Y 5/6	5Y 4/6	7.5YR 3/2	5YR 3/4	7.5YR 4/4	2.5YR 4/4	N 7	N 3.5	N 2.5
YMS	19	12	9	16	13	11	13	9	18
YMN	15	12	13	12	6	22	11	7	22
YFS	22	5	13	16	6	18	18	9	13
YFN	33	3	4	14	10	16	26	8	6
TOTAL	89	32	39	58	35	67	68	33	59

Y= Young, M= Male, F= Female, S= Smoker, N= Non-smoker
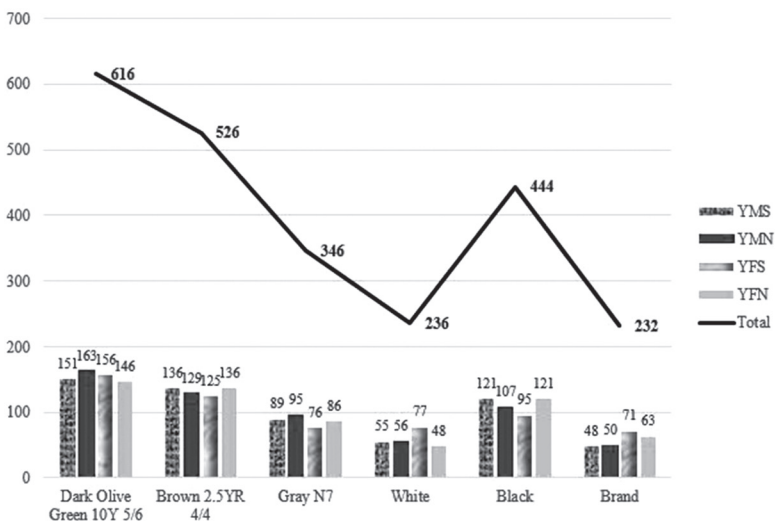
Figure 3 Comparison Results of Unattractive Colors on Plain Packages

The Effectiveness between Plain Packs and Branded Pack with 85% PHW

       The results of the overall study comparing five mock-ups and one branded pack found that all color on mock-ups was unattractive and created the feeling of not wanting to purchase the cigarettes more than the branded pack. The most unattractive color was dark olive green 10Y 5/6 followed by brown 2.5YR 4/4, black, gray N7, and white respectively (see Table 3 and Figure 4).

Table 3 Comparison Results between Plain Packs and Branded Pack

Color Participant	Dark Olive Green 10Y 5/6	Brown 2.5YR 4/4	Gray N7	White	Black	Brand
YMS	151	136	89	55	121	48
YMN	163	129	95	56	107	50
YFS	156	125	76	77	95	71
YFN	146	136	86	48	121	63
TOTAL	616	526	346	236	444	232

Figure 4 Comparison Results between Plain Packs and Branded Pack

The results confirmed that 85% PHW also reduced the attractiveness of the plain package more than the branded pack.

When asked about the personal perceptions, most participants indicated that dark olive green 10Y 5/6 with the image of oral cancer make the color associated with the rotten, dirty, and grotesque situation as well as the infected phlegm or the color of the mucus. When combined with the warning image of oral cancer, the color made the image of the cigarette package look undesirable so that they did not want to look at, touch or purchase the cigarette. Some participants indicated that they never seen this dark olive green before and thought that it was not suitable for any product. When the color appeared on the cigarette package, therefore, the participants expressed their consent that it did not go well with the product and discourage the choice in wanting to purchase the cigarette. The less appealing colors were brown 2.5YR 4/4, black, gray N7, and white, respectively which almost every participant group had the same tendency in selecting the colors.

When classified by gender and smoking behavior, it was found that these variables did not affect the color order on the plain package that caused the participants to avoid purchase of the cigarettes. The dark olive green 10Y 5/6 was the first color, followed by brown 2.5YR 4/4, black, gray N7 and white. However, the score between white and branded pack was different. The male and the smoking group felt that white plain package was less appealing than the branded pack. While the female and non-smoking group felt that the branded pack was less appealing than a white plain package.

In case of brown and black, most participants indicated that brown and black gave the feeling of death, funeral, and horror. When appeared with a scary warning image on a cigarette package, black would enhance

the meaning of oral cancer and lung cancer that lead to death. The gray color gave the feeling that the cigarette was tasteless and stale. When appeared with the cancer image, white made the image of the lung look clean because white represents clean and washed. As a result, the participants stated that white attracted and made them feel more likely smoking.

Discussion

As a marketing communication tool, the manufacturer uses the package of a mass product to communicate the information of the brand to consumers as well as to attract the attention of consumers. Also considered as a mass product, the cigarette package is a medium used to communicate the important brand image to consumers, especially in the countries that ban all forms of advertising and marketing communications. Therefore, the World Health Organization recommends the FCTC member countries to push the policies of controlling the cigarette label and package, including the enforcing measures to use the largest warning image possible and plain package which reduced the attractiveness of the cigarette packages.

For every participant group, the research results showed that the color dark olive green 10Y 5/6, brown 2.5YR 4/4, gray N7, and black on plain package, when compared with a branded pack, helped reduce the attractiveness of the pack. The results of this research were the objection of the tobacco companies stating that plain package is unable to reduce the smokers.

The young group indicated that dark olive green or Munsell 10Y 5/6 was the least appealing. When using with the 85% PHW of oral and lung cancer, the young group maintained the statement that the dark

olive green still created the feeling of not wanting to purchase the cigarette. This result consisted with the study from Australia found that dark olive green was the best color for plain packaging (Department of Health and Ageing, 2011).

While brown 2.5YR 4/4 gave both positive and negative feelings. It represented as a color tone of chocolate, that sustained a positive feeling. Therefore, emphasize on enhancement of the image of lung cancer must be more scary and dangerous so that the participants would avoid. For this reason, it should not be employed as a background color for a plain package (Gallopel-Morvan et al., 2013).

Moreover, the result of this research showed that plain pack helped to reduce the attractiveness of cigarette package to both smoking and non-smoking young adults. It also helps to enhance the effectiveness of the PHW and increase the awareness of the danger from smoking better than the branded pack (Babineau & Clancy, 2015; Drovandi et al., 2019; Lacave-Garcia et al., 2018). A plain pack made a group of young adults feel less inclined to purchase the cigarettes. Therefore, implementing a use of plain pack will help reduce the new smokers based from discouraging graphic and background color (Germain et al., 2009; Shankleman et al., 2015).

In Thailand, when using the PHW of oral and lung cancer on the plain package, the young adult had a negative perception toward the PHW and did not associate or purchase the cigarette. Because they perceived dark olive green 10Y 5/6 and the PHW with the dirty, rotten, and extremely undesirable feeling, which created the perception of sadness and distress. Furthermore, it also reminded the young adults of phlegm and mucus infected by oral cancer. Therefore, when using dark olive green 10Y 5/6 as a background color on plain package along

with the 85% PHW of oral cancer, the young adults felt that the package was unattractive and did not want to purchase the cigarette.

Unlike dark olive green, a white plain pack created the appealing feeling and the smoking desire for the participants. In this research, the image of lung cancer on white background made the participants feel that the lungs were clean. This result consisted with the study found that the tobacco business tried to increase white space on the cigarette pack to attract smokers (Lempert & Glantz, 2016), thus created the desirable condition of their packages.

As Percy (2018) indicated that the visual elements of a package is its message that all manufacturers make their packages differ from their competitors. Therefore, well-designed packages can attract attention at the point-of-purchase. The message appears on the packages could be important to communicate about the product and brand while the color can convey mood, and the shape of the packages can affect the consumers' perception. These research results showed that when using the unattractive color or plain cigarette packaging, it reduced the cigarette packages attractiveness as well as the brand appealing. Moreover, when using the plain package with 85% PHW, it created the undesirable meaning to the image. Therefore, the plain packaging is the important measure to control marketing communication through cigarette packages.

Conclusion for Tobacco Control Policy

The result of this research discovered that dark olive green 10Y 5/6, similar to the Pantone 448C the original color from Australia, should be used as a background color on the plain package with 85% PHW of oral cancer because it created the uneasy and undesirable meaning to the

image. The participants indicated that they has never seen this dark olive green before; therefore, there was no color meaning construction. In addition, the result also showed that plain package, which remove the branding communication, can be used as an enforce measurement to make the package unattractive. Then it will help reduce new smokers, both young adult smoker and young adult non-smokers. Consequently, plain package with large PHW is considered as a cost-effective tobacco control measure for the government to control the tobacco consumption (Gallopel-Morvan et al., 2013), especially among young and young adults (White et al., 2012). However, if in the future there is a change of the PHW on the cigarette package, the implication of this research implies that the government should consider using the colors that help increase the effectiveness of the PHW and reduce brand appealing to allow the smoker to make choices upon societal agreement or policy.

Recommendations

Policy Recommendation

The finding from this research suggested that choosing dark olive green color coding 10Y 5/6 as the background color of the plain cigarette packaging would be more appropriate to reduce the attractiveness of the cigarette package than other colors.

Further Study Recommendation

This research was the experimental research that focused on the unattractive abstinent colors on the mock-up plain package and the effectiveness of the plain package with the 85% PHW and branded package. Thus, the further study should be performed with the focus group interviews or in-depth interviews in order to explain the association between the color and meaning in term of consumers' insight and

perception. Moreover, this experimental research was conducted in Bangkok areas. It is recommended that the further study should be conducted in other areas and using a larger sampling for generalization.

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