

Print ISSN: 2288-4637 / Online ISSN 2288-4645  
doi:10.13106/jafeb.2019.vol6.no3.193

# Advertising to Kids and Tweens: The Different Effect of Warning Label Attached on the Product Packaging\*

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Received: December 15, 2018 Revised: December 18, 2018 Accepted: July 3, 2019

## Abstract

The issue of health risks from consuming unhealthy product is an important issue that is happening right now. Both developed and developing countries are already aware of the need for attention to the health-risk products. One tool that is believed to be able to change the consumption behavior of the health-risk products is the use of warning label on product packaging. As a persuasive act, both visual and textual warning label are believed to be able to change people's consumption behavior. In addition to the labels that contain health hazards, this research also uses social consequence contents. The main targets of such unhealthy product marketing are children and adolescents. Correspondingly, this study targets the age groups of kids and tweens. The method used in this research is experiment, involving 180 participants from two age groups namely kids and tweens. As a result, the study found that the influence of warning label on the age of tweens is greater in the age of the children. Meanwhile, the use of visual and textual warning label using social consequences contents, proved to be effective at the age of tweens. These results are useful for enrich social marketing subjects, especially within warning label research.

**Keywords:** Social Marketing, Warning Label, Social Consequence Label, Kid and Tween, Food and Beverage.

**JEL Classification:** M31, M37, M38, C92, I18.

## 1. Research Background

Marketing strategies and practices in the business world are growing so rapidly. Marketing activities, whether we consciously aware of, has become the basic activities within human needs in wherever and whenever. Aside from being a tool in fulfilling human needs, social marketing activists believe that marketing practices can also cause negative effects that can be harmful to human life itself. For example, the marketing of unhealthy food and beverage products poses a health hazard to consumers buying the product.

This is an important concern for us to catch on how to protect consumers from marketing activities causing those negative effects. One of the solutions that is so far believed to be effective is to place a warning label on every product packaging that contains negative effects for consumers, e.g. health hazards. How effective the use of warning label becomes an important question in the realm of social marketing research. Many academics measures the label effectiveness through gauging how well the label affects purchase intentions to the point of encouraging people to stop the buying and fence off people from starting the buying. Since 2003, both marketing and health academics have been working together to answer such question. In his research, (Bansal-Travers, Hammond, Smith, & Cummings, 2011) finds that visual labels are more effective than textual labels, which further reinforced by another finding from research in Canada (Kees, Burton, Andrews, & Kozup, 2010). Along with the conscience from academics to support anti-junk food campaigns, research on visual warning label towards unhealthy food and beverage products have since growing rapidly in several countries, especially in Australia, Canada and the US.

\* This paper is an extended version of a paper presented at ICEBM 2018 (<http://icebm.untar.ac.id>). We are making this version available in order to have more clear results and discussions in comparison to its short version including complete proofs.

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Empirical testing for warning label towards unhealthy food and beverage products is still inadequate. Meanwhile there is an urgency for academic to slow the rate of deceived consumers. One study from (Effertz, Franke, & Teichert, 2014) found that warning label on beverage packaging affects teen buying intention. VanEpps, Downs and Loewenstein (2016) also found that warning label in food product containing caloric value have been shown to affect consumer purchasing intent towards unhealthy food products. However, there is inadequate research on warning label for food and beverage packaging presences the urgency for academic to examine the effects of warning labels.

Common marketing strategies use to constantly targeting consumers to buy their products. Massive marketing strategies greatly predispose consumers to buy products without concern to the negative impact when consumed. Notably for teenagers, the growing and ever curious teenagers usually helpless in front of persuasion strategy from the advertisement of unhealthy food and beverage products. This becomes a concern to protect consumer well being from unnecessary buying suggested by irresponsible marketers. One solution to overcome the issue is by using demarketing strategy on product packaging, thus maximizing the use of warning label that allegedly capable of affecting purchase intention towards unhealthy food and beverage products. Therefore, it is important to examine the effect of warning label on consumer purchasing intent.

Understanding the health risks upon consuming the products can influence consumers in choosing the product to purchase. Berry, Burton, and Howlett (2017) found that consumer understanding on health risks possessed by a particular product is one factor that affects consumers' intent to purchase such particular products. These findings are very important for demarketing strategy. Therefore, by this study researchers will test their influence on unhealthy food and beverage products. The research aims to fill the research void within social marketing domains associated with warning label and the anti-food and beverage unhealthy campaigns.

The scope of the research is limited to target elementary school children within three Indonesia major cities. This is because elementary school students are at risk of being targeted by the marketing of unhealthy food and beverage products.

## 2. Literature Review

### 2.1. Use of Warning Label in the Product Pack

Packaging can be an important promotional tool for marketers in helping to create a profitable brand image and

to link to strategic marketing elements (Halim, Sumiyarto, & Muttaqin, 2014). To increase brand value, marketers strive to develop attractive packaging that creates the desired brand positioning and to reinforce promotional messages delivered through integrated marketing communications. A packaging can provide a more positive promotional effect than of advertising (Halim et al., 2014), thus marketers strive to create a packaging that is viewed as positive which eventually can improve purchasing intent. For products that are potentially harmful to consumers, putting warning and disclosure on the packaging is an important potential communication tool for public health policy and government agencies (Goodall & Appiah, 2008). The warning label on the product is one form of consumer protection (Halim & Muttaqin, 2014; Halim et al., 2014). Warnings and disclosures may inform consumers about the potential risks and hazards associated with the use of the product and, in turn, offset the positive consequences derived from effective design packages and other promotions.

Product possessing a degree of health risk needs to include the disclosure to consumers about the risks of consuming the products. Ant junk food activist and social marketing experts has since been trying to persuade consumers to reduce their consumption over such products as well as preventing non-consumers from buying it. Public health researchers assess warning labels as part of an educational process designed to inform consumers to influence their attitudes, intentions, and behavior (Argo & Main, 2004; Hassan & Shiu, 2017). Warning label in product advertisement is often regarded as a solution to balance between consumer protection and corporate interests. Warning label has a long research history. Although, the disclosure of warning label still does not guarantee the desired response, but even among more skeptical or critical views there are still consideration for warning label ability to influence children or teenagers to provide information within purchasing decision process. Based on several reviews on literature studies, there are certain empirical studies showing a clear effect of warnings on consumer behavior.

### 2.2. Textual Warning Label

Textual warning label have been used on both food and pharmaceutical products in order to protect consumers (Halim et al., 2014). Textual warning label on alcoholic beverage, junk food and pharmaceutical products have been around for a long time. Some researchers have suggested that textual warning label may affect individual behavior, such from (Andrews, Netemeyer, & Durvasula, 1993; Hassan & Shiu, 2017). Based on the principles of persuasive communication theory, the uses of warning label have different effects on individual beliefs and attitudes. The

findings reveal that the health-warning label can be trusted. This finding is reinforced and expanded by numerous studies (i.e. Bollard, Maubach, Walker, & Ni Mhurchu, 2016; Borland, Wilson, Fong, Hammond, Cummings, Yong, & McNeill, 2009; Bushman, 1998; Hennigs, Schmidt, Langner, Karampourioti, & Albertsen, 2017; Kersbergen & Field, 2017; Hassan & Shiu, 2017; McCloud, Okechukwu, Sorensen, & Viswanath, 2017; Mead, Cohen, Kennedy, Gallo, & Latkin, 2015). They found that warning labels are believed to be an effective way to change people's behavior.

### 2.3. Visual Warning Label

The message contained in the visual will attract the attention of consumers to interpret the message. Lin and McFerran (2016) found that nutritional claims by displaying visual label such as green, yellow, and red lights proved to be more effective than textual messages. Effertz et al. (2014) explains that visual warning label on beverage packaging can better reduce the intention to purchase the products compare to textual messages. The use of visual warning label has proven to be better than the use of textual warning label alone. The results of previous studies underscore that the warning in the form of graphical label is way more effective than textual towards the cognitive and the emotional reactions as well as behavioral intention. Warning labels which image are designed to be more colorful and more visible are considered easier to understand hence will increase awareness and knowledge about the health risks of the product (Andrews, Burton, & Kees, 2011; Kees, Burton, Andrews, & Kozup, 2006; Kees et al., 2010).

As described in the previous section, research on warning label within social marketing have proved that warning label can influence the intention to purchase a product, as observed in the following studies (Effertz et al., 2014; Halim et al., 2014; Hennigs et al., 2017; Kees et al., 2006; Murdock & Rajagopal, 2017; Shiyabola, Smith, Huang, & Mansukhani, 2017). In line with the progress made from the research on warning label, the analysis within this topic is becoming incisive (Bader, Shihab, Al-Rimawi, & Hawari, 2017; Bollard et al., 2016; Kees et al., 2006; Mead, Cohen, Kennedy, Gallo, & Latkin, 2016; Murdock & Rajagopal, 2017). Although many previous studies have shown that the effectiveness of warning labels affects consumer consumption patterns, social marketing academics are still worried about the increasingly vigorous promotion on health-damaging products such as beverages and junk food which eventually will taking on a larger role in creating undesirable consumption behaviors. This concern is evidenced by the increase demand for these products and so do the health effects on consumers.

Visual warning labels, especially for unhealthy food and beverage products, are still rarely been encountered within the product on the market. Unlike cigarette products, food and beverage products seem to be in a 'safe' position for years from putting any textual warning labels away from product packaging. The definition of 'safe' here is the non-existent government regulatory interventions which require the marketers to place warning labels other than textual warning on the packaging. Moreover, the placement of textual warning labels seems to be less appealing to consumers, and many marketers even put the textual warning in hard-to-read positions on product packaging. Therefore, it is no wonder that the demand for these products keep increasing. Numerous studies (Bader et al., 2017; Kees et al., 2010; Levy, Mays, Yuan, Hammond, & Thrasher, 2017; McCloud et al., 2017; Mead et al., 2016; Romer, Ferguson, Strasser, Evans, Tompkins, Macisco, & Peters, 2017) suggest that the use of visual warning label to attract consumers attention more. Therefore, within this study, researchers decide to use visual elements as a warning label. Aside from, testing the warning label effectiveness, the research also contributed by means of enriching the literature regarding the use of visual warning labels on unhealthy food and beverage products. The use of visual warning label is becoming urgency in empirical research in the interest to improve academic repositories within the field of warning labels.

### 2.4. Message Content on Warning Label

Furthermore, the use of visual and textual warning label has been widely applied to developed and developing countries. Especially in Indonesia warning label on unhealthy food and beverage products still seems to get less attention from consumers. The warning label seems to be used only as a complement to the packaging as a product prerequisites when entering the market. For example, the warning labels used on snack products are textual label that use normative writing and do not draw attention, both in term of design and content. The design factor on warning label has been one of important factors in attracting the consumer's attention, to communicate the purpose of warning label to the fullest (Bader et al., 2017; Halim et al., 2014; Kees et al., 2006; Levy et al., 2017; McCloud et al., 2017; Mead et al., 2015, 2016; Mutti, Reid, Gupta, Pednekar, Dhumal, Nargis, & Hammond, 2016; Romer et al., 2017; Tannenbaum, Hepler, Zimmerman, Saul, Jacobs, Wilson, & Albarracín, 2015). In term of content, elements on warning label generally describe health risks information concerning the consumption of food and beverage products. These labels proven to be effective in reducing consumption behavior.

The progress on warning label research has been outpaced by the research on the elementary level, which the most recent example can be found in Murdock and Rajagopal (2017)'s research on warning label content used in social content as a derivative of the health risks experienced by product users. The research describes that the obese will lead to vulnerability to stroke, diabetes, and impacting one social life such as being less attractive, difficulty in finding the size of clothing, etc. It reveals that the use of proven social content can effectively affect consumer behavior in buying risky products. However, the study did not measure label effectiveness on unhealthy food products. The research suggests that it is also necessary to test the label effectiveness over various ranges of products and age groups – especially to the younger – thus calling for academic urgency within the field of warning label. Accordingly, this research will use warning labels containing social and health-risks content in both textual and visual form.

## 2.5. Kids and Tweens Group

Being the main victim of junk food products around the world, for example in the State, Australia, America, Singapore etc., children and adolescents are generally the focus of anti-junk food campaigns globally. The fact that most teenagers and children are exposed to various types of anti-junk food messages (e.g. from the media, community, school and family), and are continuing to adopt the product is rather troublesome. This since becomes the main objective among health care practitioners and designers to prevent them from developing a junk food addiction.

As children enter adolescence, they often seek to develop their identity. Physical, cognitive and social changes that occur today can cause variation in one's self-image (Halim & Muttaqin, 2014; Halim et al., 2014). As a result, young people may question the personality or the kind of individual they want to follow. In their search for identity, advertisers to purchase their junk food products can dictate teens. This characteristic serves easy preferences for marketers in expanding their products. For example, cigarette campaigns that target more to teenagers through music festivals, challenging games and sports. Another examples by food company that use visually appealing animations or cartoon characters to attract the attention of consumers within this age group.

The biggest concern from anti junk food activist is the advertisement of junk food and beverage products targeting the school-children age group. Massive ads attempt to seduce and to persuade, and even to deceive, 6-12 years old to buy and to develop loyalty to the sold products. One example is the use of cartoon character elements that

children love, both on packaging and advertisement. There are many bad effects from consuming unhealthy foods and beverages found through social media, in which obesity is being one of them. Empirical reports coming from Singapore and Australia found that obesity and other negative effects on children are caused by the massive products advertisement leading marketers of such products to be strongly criticized by anti-junk food activists, and even draw heavy concern from government. Accordingly, the study will target children and adolescents of 6-12 years old age group. Some studies (Andrews et al., 2011; Kees et al., 2006, 2010) explain that the effectiveness of warning label is influenced by age, in which the older the age group the greater the effectiveness of warning labels will be. This is because the children's understanding about the product risks will eventually get better as they matured. Therefore, the age factor affecting the effectiveness of warning label will be examined within this study.

## 3. Conceptual Framework and Hypotheses

After analyzing the previous research about warning label on unhealthy products, the researchers present the following picture as the research model that means to convey the mindset or thought-framework within this study.

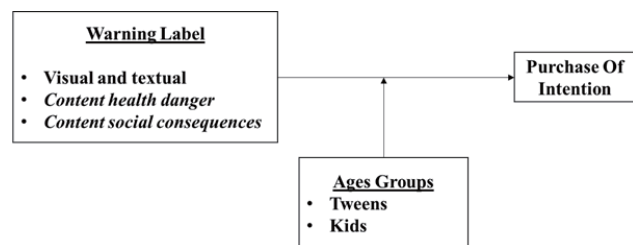


Figure 1: Conceptual Framework

The conceptual framework that we use within this research is a refinement and an extension of the previous research as found in (Halim et al., 2014; Kees et al., 2006; Murdock & Rajagopal, 2017). As the extension to the concept of warning label, the research add one more type of content used in warning label that is social consequences content. In addition of using visual and textual warning label containing health-risk content, social consequence content is expected to be used in warning label due to its capability to adversely affect the consumers. The effect of warning label is believed to be further influenced by the consumer age factor (Effertz et al., 2014). Within this study, we compared the two age groups that are tweens and kids. This is in line with previous excerpts that support the notion

that these two age groups are seemingly the most susceptible target of unhealthy food and beverage products.

### 3.1. The Effect of Visual Label on Social Consequences

The literature history of warning label shows that visual warning label has been proven effective both in reducing and even in eliminating purchase intention. The current warning labels mostly use health-risk images, as reported in (Andrews et al., 2011; Effertz et al., 2014; Gallopel-Morvan, Moodie, Hammond, Eker, Beguinot, & Martinet, 2012; Murdock & Rajagopal, 2017). We believe that the content used in visual warning label gives difference effect to the purchase intention. In his research, (Murdock & Rajagopal, 2017) use social consequence content as a tool to influence purchasing behavior. On that account, this research will test the effectiveness of warning label containing social consequence content. In line with (Andrews et al., 2011; Effertz et al., 2014; Halim et al., 2014; Kees et al., 2006) suggesting that age difference influence the assessment of warning label hence the first hypothesis:

**H1:** The effectiveness of visual label containing social consequences content is greater on tweens group purchasing intent than kids group.

### 3.2. The Effectiveness of Textual-visual Label Containing Health-risk Content

The use of textual-visual warning label containing health-risk content has been widely proven effective in influencing purchase intention. However, previous researches mainly focus on the result towards adult age group. Meanwhile, kids and tweens age group show different cognitive and behavioral capacities compare to the adult age group, which is supported by (A. D. Cox, Cox, & Zimet, 2006; Cox, Wogalter, Stokes, & Murff, 1997; Rogers, Lamson, & Rousseau, 2000). Accordingly, we believe that warning label influence kids and tweens age group in different rate. We then hypothesize:

**H2:** The effectiveness of the visual-textual warning label containing health-risk content is greater on tweens group purchasing intent than the kids group.

**H3:** Within tweens group, the effect to purchase intention differ between participants who were given textual warning label stimuli compare to participants who were given visual warning label stimuli.

### 3.3. The Effectiveness of Health-risk Warning Label Contains Social Consequences Content

Murdock and Rajagopal (2017) tried to use social content in warnings label as an illustration of the health-risks that might be experienced by the users. It describes the condition of obesity leading to stroke, diabetes, and might cost a person's social life such as becoming less attractive, difficulty in finding the size of clothing, etc. It reveals that the use of proven social content can effectively affects consumer behavior in buying risky products. In this study, we believe that using health-risk products will also expose consumers to social consequences. The social consequences from unhealthy food and beverage products are derived from the health-risks for instance obese children might get bullied and shunned by their friends. Although warning label typically already contained health-risk content; we believe there should be an adjustment in content to particular age groups. At the early age, children and adolescents try to avoid being ostracized and shunned by their friends. Consequently, we suspect social consequences content in warning label will affect their behavior towards a health-risk product. Therefore, the next hypothesize will be as followed:

**H4:** Within tweens group, the effect to purchase intention differs between warning label containing social consequences and warning label containing health-risk.

## 4. Research Method

### 4.1. Pretest

The first step we did was to conduct a pilot study to determine the warning label stimulus that would be used. Pilot study consisted of nine-stages that aim to get a truly tested stimulus. The first stage of pretest is to list the unhealthy products from beverage category. The second stage is for respondents to determine which one is perceived as the unhealthiest beverage product. The third stage is for respondents to determine which beverage brands is the most remembered. The fourth stage is for respondents to assess the health-risk content in textual warning label. The fifth stage is for respondents to assess the health-risk content in visual warning label. The sixth stage is for respondents to assess which one is the most appropriate to convey warning, across the given visual-textual warning label containing health-risk content. The seventh stage is for respondents to assess the social-consequences in textual warning label. The eighth stage is



for respondents to assess the social-consequences in visual warning label. The ninth stage is for respondents to assess which one is the most appropriate to convey warnings, across the given visual-textual warning label containing social consequences content.

The second step was to test the validity and reliability of the dependent variables. The validity test using factor analysis shows that whenever the KMO value scored above 0.5, the factor loading value and MSA would be above 0.6. Likewise, the Cronbach alpha value scored above 0.6. Based on the requirements outlined by Malhotra (2007) then the measuring tool in this study is considered valid and reliable for the use in actual research.

**4.2. Procedures and Sample**

To answer the research problem, the research use experimental lab method. It is in the form of a causal study used to describe evidence of a causal relationship (Malhotra, 2007). The experimental design of this research consisted of 3 (textual warning label, visual warning label, textual-visual warning label)x2 (health-risk content, social-consequences content) inter-subjects. Participants were randomly placed within the 6 cells from the experimental design formation. Each cell was given a different stimulus. There were a total of 180 participants, in which each tweens and kids group consisted of 90 participants respectively. The independent variable was a warning label consisting of 6 types of labels namely textual social consequences content, visual social consequences content, textual health content, visual-risk health content, textual-visual social consequences content, and textual-visual health-risk content. The dependent variable was purchase intention. The question items used in this research are in accordance with those defined by Baker and Churchill (1977). The research used a 7-scale question indicating the purchase intention, with 1 being “highly want” and 7 being “highly not want to”.

**5. Analysis and Results**

**5.1. Data Checking**

As an experimental tool used in this study, stimulus was generated during the pilot stages of the study. Prior to conducting the field experiments, the measuring tool for this study has been undergoing a series of validity and reliability test. The study also used factor analysis and cronbach alpha test in accordance with what proposed by Hair et al. (2006), in which the results show that all measuring instruments within this study are valid and reliable to be used for further research.

**5.2. Stimulus Test**

The study used the univariate approach: analysis of variance (ANOVA) to test the relative significance of the interaction from each of warning labels. Next we used the t-test to test the significance from the interconnected cells. Below is the output of ANOVA using SPSS 20.

**Table 1: ANOVA result**

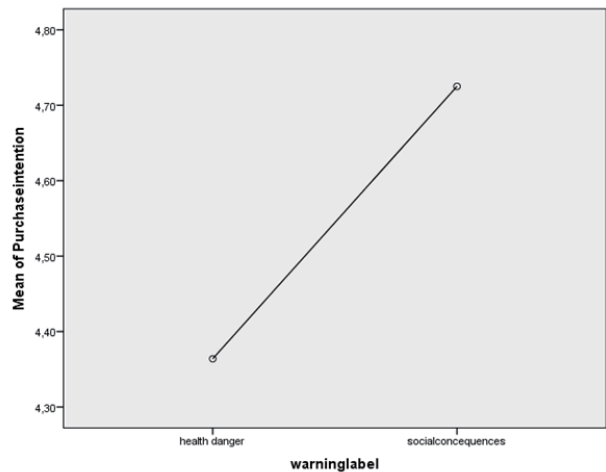
Tests of Between-Subjects Effects					
Dependent Variable: PI					
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	229,023 <sup>a</sup>	5	45,805	112,323	,000
Intercept	3756,084	1	3756,084	9210,726	,000
LABEL	210,419	2	105,210	257,997	,000
KONTEN	7,503	1	7,503	18,399	,000
LABEL * KONTEN	11,100	2	5,550	13,610	,000
Error	70,956	174	,408		
Total	4056,063	180			
Corrected Total	299,979	179			

a. R Squared = ,763 (Adjusted R Squared = ,757)

Judging from the value of p 0,000 (p <0.05) in the above ANOVA table, then there is a significant interaction between the two factors compared to the label \* content. This means that each given stimulus has different influence on each participant. Therefore, it can be said that the given stimulus has succeeded in rendering different effects to each respective experimental cell.

**5.3. Dependent Measures**

Furthermore, the assessment result for purchase intention, as a dependent variable, will be presented as in below graphic:



**Figure 2: Mean Comparisons For Purchase Intention On Warning Label Content**

From the above mean-graph for the purchase intention, we can see that warning labels containing social consequences content has a higher contribution than warning labels containing health-risk content. As has been explained in the earlier section, a lot of research has proof that warning labels containing health-risk content effectively affects the intention to purchase. As a complement, the social consequences content in warning labels investigated through this research can serve as an alternative to the warning label message on the product packaging. Therefore, the results coming from this study register a new finding within the domain of product warning labels.

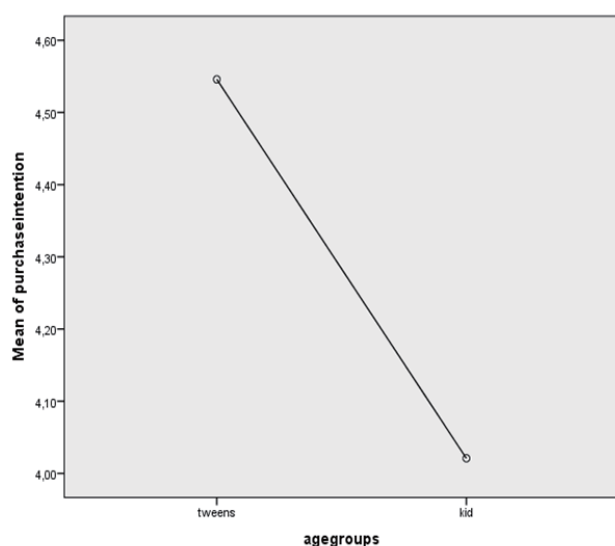


Figure 3: Mean Comparison For Age Groups On Purchase Intention

The above mean-graph of the purchase intention shows that warning label has the highest diminishing influence against tweens group, meanwhile kids group record the lowest. This is in line with the statements and findings from previous research (Halim & Muttaqin, 2014; Halim et al., 2014; Halim & Zulkarnain, 2017) explaining that age maturity will improve the ability to digest the warning content.

#### 5.4. Hypothesis Test

The result of SPSS data shows that visual warning label containing social content lead to diminish purchase-intention at the mean value of  $M = 5.24$  against Tween group, and  $M = 4.67$  against kids groups. This implies that the influence of visual label containing social content is greater at the age of tween than the kid. Then, to see the synergy of the effect, t-test was applied. The value shows  $\text{sig.000}$  ( $p < 0,5$ ) and  $t\text{-value} = 40,62 > t\text{-table df (29)} = 1.69$ , placing  $H_0$  in reject

area. This implies that there is a significant influence between the two mean variables being compared.  $H_1$  is therefore accepted: *The effectiveness of visual label containing social consequences content is greater on tweens group purchasing intent than kids group.*

The result of SPSS data also shows that visual-textual warning label containing health-risk content lead to diminish purchase-intention at the mean value of  $M = 5.40$  against tweens group, and  $M = 5.07$  against kids group. This implies that the influence of visual-textual warning label containing health-risk content is greater at the age of tween than the kid. Then, to see the significance of the effect, t-test was applied. The value shows  $\text{sig.000}$  ( $p < 0,5$ ) and  $t\text{-value} = 44.10 > t\text{-table df (29)} = 1.69$ , placing  $H_0$  in reject area. This implies that there is a significant influence between the two mean variables being compared.  $H_2$  is therefore accepted: *The effectiveness of the visual-textual warning label containing health-risk content is greater on tweens group purchasing intent than the kids group.*

Moving forward, about the purchase intention within the tweens group, the data shows that visual warning label has purchase intention that diminish at the mean value of  $M = 5.01$  meanwhile textual warning label diminish at the mean value of  $M=4.07$ . This implies that the effect of visual warning label is greater than the textual one. Then, to see the significance of the effect, t-test was applied. The value shows  $\text{sig.000}$  ( $p < 0,5$ ) and  $t\text{-value} = 30.00 > t\text{-table df (29)} = 1.69$ , placing  $H_0$  in reject area. This implies that there is a significant influence between the two comparable mean variables.  $H_3$  is therefore accepted: Within tweens group, the effect to purchase intention differ between participants who were given textual warning label stimuli compare to participants who were given visual warning label stimuli.

Still about the purchase intention within the tween group, the data also shows that warning label containing health-risk content has purchase intention that diminish at the mean value of  $M = 4.30$  meanwhile warning label containing social consequences content diminish at the mean value of  $M = 4.72$ . This implies that the effect of warning label containing social consequences is greater than the one containing health-risk content. Then, to see the significance of the effect, t-test was applied. The value shows  $\text{sig.000}$  ( $p < 0,5$ ) and  $t\text{-value} = 38.00 > t\text{-table df (29)} = 1.69$ , placing  $H_0$  in reject area. This implies that there is a significant influence between the two comparable mean variables.  $H_4$  is therefore accepted: Within tweens group, the effect to purchase intention differs between warning label containing social consequences and warning label containing health-risk.

## 6. Discussion

### 6.1. Warning Label Characteristics

The effective content is characterized by its ability to warn about danger, to explain the consequences, and to give instructions to avoid such danger. The results coming from this study register a new findings within the domain of product warning label effectiveness. Through the manipulation of certain design characteristics, the result shows that the method indeed improving and sharpening the warning label effectiveness. The three characteristics found on warning label are text or label writings, display format, and the location of warnings on product. First, the content of warning label refers to the choice of easily digestible vocabulary such as the health-risk that might arise when consuming the products. The notion is in line with the explanation from previous chapter that the text writing for warning label need to consider all the text format characteristics such as font color, font size, text direction, spacing ratio, instructions, bolded text, etc. with the focus to make the text messages to be more readable or recognizable. It is reinforced with the findings from Adams and Edworthy (1995); Barlow and Wogalter (1993); and Bansal-Travers et al. (2011).

Furthermore, the result coming from this study also underline the assertion that the important parameter for the effective labelling included label configuration, label form, border, package design, color labeling, and so on, as suggested by Adams and Edworthy (1995); Barlow and Wogalter (1993) and Bhalla and Lastovicka (1984). It is also underline the importance to consider the selection of appropriate images illustrating both health-risk and social consequences that might arise when consuming the products. As for the warning label location, this study was conducted by located the warning label in front of the packaging and next to the main picture of the product. It is as suggested by Barlow and Wogalter (1993) and Rizal (2015) that the location of a warning label on a product, or in relation to other packaging design elements – e.g. included in the instructions for use – may also affect whether the warning label is visible and can engage audience consciousness towards the messages. Labels can be located in a more conspicuous location, for example on the front or at the side of packaging, but not at the behind. The result implies that the used of conspicuous design can elicit an emotional response, such as fear (Kees et al., 2010) in which red-designed warning label may elicit fear attitude towards product. It aids cognitive processes by improving readability of messages and overcoming language barriers and illiteracy problems, as well as having an additional

impact on consumers by inducing negative emotions on consumption (Kees et al., 2010).

### 6.2. Warning Label Content

Message content is an important component that can strengthen or reduce the effectiveness of warning messages (Pechmann & Catlin, 2016). The result shows that social-consequences and health-risk content yield a different effect. These result are in line with Murdock and Rajagopal (2017) that proved the effectiveness of warning label for both health and social content. The results coming from this study enrich the empirical findings on the warning label study, particularly for academic insights on the regard of the design of advertisements and aspects of messenger personality. This study improved academic repositories for the participants on tweens age group and kids age age group. The result coming from this study reinforce previous research findings stating that warning acceptance by adolescents and young adults are often considered different (Cox et al., 1997; Rogers et al., 2000), and thus it contradicts the empirical evidence from (Argo & Main, 2004) who presented meta-analysis stating that age is negatively correlated with warning perceptions. As a matter of fact, warning label itself is strongly associated with demarketing activities aiming to limit or reduce or inhibit consumer demand on unhealthy food and beverage products. This study contributed to improve academic repositories for the applicable warning label i.e. social consequences content. Then, still as per described by Kotler and Levy (1971), the findings from this study aiming to limit or reduce demand specifically to unhealthy products. Furthermore, as per assertion from Halim and Muttaqin (2014) and Halim et al. (2014), self-demanding practices can further be grouped into three levels based on the depth of demand-reduction practices undertaken, in which the findings of this research contributed to passive demarketing; i.e. only on certain group of consumers like the groups of children and early adolescence.

### 6.3. Managerial Implication

This research has proof that warning label containing social consequence content can serve the purpose in delivering the warning. Having such content on warning label on unhealthy food product packaging is one possible way to achieve the goal in reducing purchase intention. The result from this study shows that the content conveyed through warning label to kids and tweens can rival those advertisement bombardment aimed to sell the products regardless of the health risk. The findings can strengthen



warning label position upon competing with advertising elements when inhibiting consumer cognitive and attention. Warning label primarily work to dismantle the health-risk and possible social consequences upon consuming unhealthy food and beverage products, or a harmful product such as cigarettes. Having said so, this study also fills the gap on research about warning label, particularly on the use of warning label containing social consequences, in which it serve as an alternative content for warning label in reducing purchase intention for any unhealthy food and beverages products.

The result from this study also reinforces the warning label ideal to protect tweens and kids, that advertising exposure on unhealthy products should be limited or corrected further (Pechmann & Catlin, 2016; Pechmann, Levine, Loughlin, & Leslie, 2005). Accordingly, it is important to evaluate how effective warning label affect the purchase intentions of those tweens and kids, which one of the improvement can be done by having a visual warning label on unhealthy food and beverage packaging products. The research recommends the government to issue a new set of regulations that restrict food and beverage companies from advertising unhealthy product for tweens and kids. Unhealthy product advertisement for kids and tweens is a controversial matter. This issue leads to polarization of opinion among advertisers. Those that advocates it consider advertising to be an informative instrument important to the product, whereas those that opposes consider such advertising to be a misleading source of information that divert children's attention from the inherent health-risk, especially on unhealthy food products such as snacks, candies, or fast food. Assisted by this research, the government could possibly take a stronger stance in protecting the younger generation from the risk of unhealthy food and beverage products.

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