

# **An Assessment towards Advertisement with Warning Label: Attached on the Product Packaging: Kids vs Tweens**

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

**Abstract:** Social marketing becomes an academic urgency in the field of marketing science as a result of the many negative effects arising from business marketing activities. 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 lab, which involved 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 than in the age of the children. Meanwhile, the use of visual and textual warning label using social consequences as content proved to be effective at the age of tweens. The results of this study are useful for the science development of social marketing, especially within the study of warning labels, specifically to give recommendation for some alternative warning labels with the additional use of social consequences content.

## **1 INTRODUCTION**

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

Understanding the health risks upon consuming the products can influence consumers in choosing the product to purchase. (Berry et al., 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, in 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 labels and the anti-food and unhealthy beverage campaigns.

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

## **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 strategic marketing elements (Halim et al., 2014). To increase brand value, marketers strive to develop attractive packaging that creates desired brand positioning and to reinforce promotional messages delivered through integrated marketing communications. A packaging can provide a more positive promotional effect than 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 and Appiah, 2008). The warning label on the product is a form of consumer protection (Halim and 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.

## 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 as (Andrews et al., 1993; L. M. and E, 2017). Based on the principles of persuasive communication theory, the uses of warning labels have different effects on individual beliefs and attitudes. The findings reveal that health-warning label can be trusted. This finding is reinforced and expanded by (Bollard et al., 2016; Borland et al., 2009; Bushman, 1998; Hennigs et al., 2017; Kersbergen and Field, 2017; L. M. and E, 2017; McCloud et al., 2017; Mead, Cohen, Kennedy, Gallo, & Latkin, 2015), who found that warning labels are believed to be an effective way to change people's behavior.

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 (Effertz et al., 2014; Halim et al., 2014; Hennigs et al., 2017; Kees et al., 2006; Murdock and Rajagopal, 2017; Shiyabola et al., 2017). In line with the progress made from the research on warning label, the analysis within this topic is becoming incisive (Bader et al., 2017; Bollard et al., 2016; Kees et al., 2006; Mead et al., 2016; Murdock and Rajagopal, 2017). Although many previous studies have shown the effectiveness of warning labels in affecting consumer consumption patterns, social marketing academics are still worried about the increasingly vigorous promotion of health-damaging products such as beverages and junk food which eventually

will take on a larger role in creating undesirable consumption behaviors.

## 2.3 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, the 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 et al., 2016; Romer et al., 2017; Tannenbaum et al., 2015). In term of content, elements on warning label generally describe health risks information concerning the consumption of food and beverage products. These labels are proven to be effective in reducing consumption behavior.

## 2.4 Kids and Tweens Group

Being the main victim of junk food products around the world, for example in the United States, 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 products 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 and 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 want the purchase of their junk food products to dictate teens. This characteristic serves easy preferences for marketers in expanding their products. For example,

cigarette campaigns that target teenagers through music festivals, challenging games, and sports. Another example is food companies that use visually appealing animations or cartoon characters to attract the attention of consumers within this age group.

### 3 CONCEPTUAL FRAMEWORK & HYPHOTHESES

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

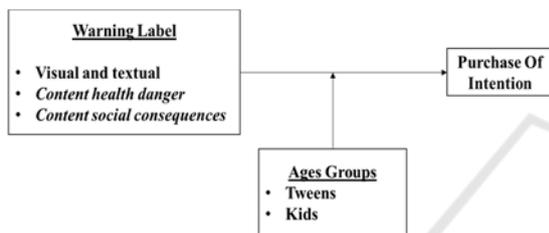


Figure 1: Conceptual Framework.

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 and Rajagopal, 2017). As the extension to the concept of warning label, the research adds one more type of content used in warning label that is social consequences' content. In addition to 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 of adversely affecting 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.

- H1:** *The effectiveness of visual label containing social consequences content is greater on tweens group's purchasing intent than kids group. And;*
- H2:** *The effectiveness of the visual-textual warning label contain health-risk content is greater on tweens group's purchasing intent than the kids group.*

## 4 METHOD

### 4.1 Procedures and Sample

To answer the research problem, the research uses 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) x 2 (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 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 wanting to" and 7 being "highly not wanting to".

## 5 ANALYSIS AND RESULTS

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

The result 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 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 contain health-risk content is greater on tweens group purchasing intent than the kids group.*

## 6 DISCUSSION

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 needs to consider all text format characteristics such as font colour, font size, text direction, spacing ratio, instructions, bolded text, and so on, and this is considered with the focus to make the text messages to be more readable or recognisable. It is reinforced with the findings from Adams and Edworthy (1995) research; Barlow and Wogalter (1993); Hammond et al., (2011) Malouff et al., (1993).

Furthermore, the result coming from this study also underline the assertion that the important parameter for effective labelling includes label configuration, label form, border, package design, colour labelling, and so on, as suggested by Adams and Edworthy (1995); Barlow and Wogalter (1993); and Bhalla and Lastovicka (1984). It also underlined the importance of considering the selection of appropriate images illustrating both health-risk and social consequences that might arise when consuming the products.

## REFERENCES

- Andrews, J. C., Burton, S., & Kees, J. (2011). Is Simpler Always Better? Consumer Evaluations of Front-of-Package Nutrition Symbols. *Journal of Public Policy & Marketing*, 30(2), 175–190. <https://doi.org/10.1509/jppm.30.2.175>
- Andrews, J. C., Netemeyer, R. G., & Durvasula, S. (1993). The Role of Cognitive Responses as Mediators of Alcohol Warning Label Effects. *Source Journal of Public Policy & Marketing*, 12(1), 57–68.
- Argo, J. J., & Main, K. J. (2004). Meta-Analyses of the Effectiveness of Warning Labels. *Journal of Public Policy & Marketing*, 23(2), 193–208. <https://doi.org/10.1509/jppm.23.2.193.51400>
- Bader, R. K., Shihab, R. A., Al-Rimawi, D. H., & Hawari, F. I. (2017). Informing tobacco control policy in Jordan: Assessing the effectiveness of pictorial warning labels on cigarette packs. *BMC Public Health*, 18(1). <https://doi.org/10.1186/s12889-017-4642-8>
- Bansal-Travers, M., Hammond, D., Smith, P., & Cummings, K. M. (2011). The impact of cigarette pack design, descriptors, and warning labels on risk perception in the U.S. *American Journal of Preventive Medicine*, 40(6), 674–682. <https://doi.org/10.1016/j.amepre.2011.01.021>
- Berry, C., Burton, S., & Howlett, E. (2017). The Impact of E-Cigarette Addiction Warnings and Health-Related Claims on Consumers' Risk Beliefs and Use Intentions. *Journal of Public Policy & Marketing*, 36(1), 54–69. <https://doi.org/10.1509/jppm.15.024>
- Bollard, T., Maubach, N., Walker, N., & Ni Mhurchu, C. (2016). Effects of plain packaging, warning labels, and taxes on young people's predicted sugar-sweetened beverage preferences: An experimental study. *International Journal of Behavioral Nutrition and Physical Activity*, 13(1). <https://doi.org/10.1186/s12966-016-0421-7>
- Borland, R., Wilson, N., Fong, G. T., Hammond, D., Cummings, K. M., Yong, H. H., ... McNeill, A. (2009). Impact of graphic and text warnings on cigarette packs: Findings from four countries over five years. *Tobacco Control*, 18(5), 358–364. <https://doi.org/10.1136/tc.2008.028043>
- Bushman, B. J. (1998). Effects of warning and information labels on consumption of full-fat, reduced-fat, and no-fat products. *Journal of Applied Psychology*, 83(1), 97–101. <https://doi.org/10.1037/0021-9010.83.1.97>
- Cox, A. D., Cox, D., & Zimet, G. (2006). Understanding Consumer Responses to Product Risk Information. *Journal of Marketing*, 70(1), 79–91. <https://doi.org/10.1509/jmkg.2006.70.1.79>
- Cox, E. P. I., Wogalter, M. S., Stokes, S. L., & Murff, E. J. T. (1997). Do Product Warnings Increase Safe Behavior? A Meta-Analysis. *Journal of Public Policy & Marketing*, 16(2), 195–204. <https://doi.org/10.2307/30000444>
- Effertz, T., Franke, M. K., & Teichert, T. (2014). Adolescents' Assessments of Advertisements for Unhealthy Food: An Example of Warning Labels for

- Soft Drinks. *Journal of Consumer Policy*, 37(2), 279–299. <https://doi.org/10.1007/s10603-013-9248-7>
- Gallopel-Morvan, K., Moodie, C., Hammond, D., Eker, F., Beguinot, E., & Martinet, Y. (2012). Consumer perceptions of cigarette pack design in France: A comparison of regular, limited edition and plain packaging. *Tobacco Control*, 21(5), 502–506. <https://doi.org/10.1136/tobaccocontrol-2011-050079>
- Goodall, C., & Appiah, O. (2008). Adolescents' perceptions of Canadian cigarette package warning labels: Investigating the effects of message framing. *Health Communication*, 23(2), 117–127. <https://doi.org/10.1080/10410230801967825>
- Halim, R. E., & Muttaqin, F. (2014). The Effect of Warning Labels on Cigarette Packages: Textual vs. Textual-Visual and Self- Efficacy. *Journal of Asian Finance, Economics and Business*, 1(2).
- Halim, R. E., Sumiyarto, & Muttaqin, F. (2014). Warning Labels on Cigarette Packages: A Special Stimulus for Moslem Smokers to Quit Smoking. *East Asian Journal of Business Management*, 5(1), 5–11. <https://doi.org/10.13106/eajbm.2014.vol5.no1.5>
- Hennigs, N., Schmidt, S., Langner, S., Karampourioti, E., & Albertsen, L. (2017). Where There's Smoke, There's Fire: Analyzing the Explicit and Implicit Effects of Text-Based and Graphic Warning Labels on Cigarette Packages. In *Creating Marketing Magic and Innovative Future Marketing Trends. Developments in Marketing Science*. Springer, Cham.
- Kees, J., Burton, S., Andrews, J. C., & Kozup, J. (2006). Tests of Graphic Visuals and Cigarette Package Warning Combinations: Implications for the Framework Convention on Tobacco Control. *Journal of Public Policy & Marketing*, 25(2), 212–223. <https://doi.org/10.1509/jppm.25.2.212>
- Kees, J., Burton, S., Andrews, J. C., & Kozup, J. (2010). Understanding How Graphic Pictorial Warnings Work on Cigarette Packaging. *Journal of Public Policy & Marketing*, 29(2), 265–276. <https://doi.org/10.1509/jppm.29.2.265>
- Kersbergen, I., & Field, M. (2017). Alcohol consumers' attention to warning labels and brand information on alcohol packaging: Findings from cross-sectional and experimental studies. *BMC Public Health*, 17(1). <https://doi.org/10.1186/s12889-017-4055-8>
- L.M., H., & E, S. (2017). Alcohol Warning Labels: A Review and Research Agenda. In *Marketing at the Confluence between Entertainment and Analytics. Developments in Marketing Science*. Springer, Cham.
- Levy, D. T., Mays, D., Yuan, Z., Hammond, D., & Thrasher, J. F. (2017). Public health benefits from pictorial health warnings on US cigarette packs: A SimSmoke simulation. *Tobacco Control*, 26(6), 649–655. <https://doi.org/10.1136/tobaccocontrol-2016-053087>
- Lin, L., & McFerran, B. (2016). The (Ironic) Dove Effect: Use of Acceptance Cues for Larger Body Types Increases Unhealthy Behaviors. *Journal of Public Policy & Marketing*, 35(1), 76–90. <https://doi.org/10.1509/jppm.14.020>
- McCloud, R. F., Okechukwu, C., Sorensen, G., & Viswanath, K. (2017). Cigarette graphic health warning labels and information avoidance among individuals from low socioeconomic position in the U.S. *Cancer Causes and Control*, 28(4), 351–360. <https://doi.org/10.1007/s10552-017-0875-1>
- Mead, E. L., Cohen, J. E., Kennedy, C. E., Gallo, J., & Latkin, C. A. (2015). The role of theory-driven graphic warning labels in motivation to quit: a qualitative study on perceptions from low-income, urban smokers. *BMC Public Health*, 15, 92. <https://doi.org/10.1186/s12889-015-1438-6>
- Mead, E. L., Cohen, J. E., Kennedy, C. E., Gallo, J., & Latkin, C. A. (2016). The influence of graphic warning labels on efficacy beliefs and risk perceptions: A qualitative study with low-income, urban smokers. *Tobacco Induced Diseases*, 14(1). <https://doi.org/10.1186/s12971-016-0088-5>
- Murdock, M. R., & Rajagopal, P. (2017). The Sting of Social: How Emphasizing Social Consequences in Warning Messages Influences Perceptions of Risk. *Journal of Marketing*, 81(2), 83–98. <https://doi.org/10.1509/jm.15.0402>
- Mutti, S., Reid, J. L., Gupta, P. C., Pednekar, M. S., Dhumal, G., Nargis, N., ... Hammond, D. (2016). Perceived effectiveness of text and pictorial health warnings for smokeless tobacco packages in Navi Mumbai, India, and Dhaka, Bangladesh: Findings from an experimental study. *Tobacco Control*, 25(4), 437–443. <https://doi.org/10.1136/tobaccocontrol-2015-052315>
- Pechmann, C., & Catlin, J. R. (2016). The effects of advertising and other marketing communications on health-related consumer behaviors. *Current Opinion in Psychology*. <https://doi.org/10.1016/j.copsyc.2015.12.008>
- Pechmann, C., Levine, L., Loughlin, S., & Leslie, F. (2005). Impulsive and Self-Conscious: Adolescents' Vulnerability to Advertising and Promotion. *Journal of Public Policy & Marketing*, 24(2), 202–221. <https://doi.org/10.1509/jppm.2005.24.2.202>
- Rogers, W. A., Lamson, N., & Rousseau, G. K. (2000). Warning Research: An Integrative Perspective. *Human Factors: The Journal of the Human Factors and Ergonomics Society*, 42(1), 102–139. <https://doi.org/10.1518/001872000779656624>
- Romer, D., Ferguson, S. G., Strasser, A. A., Evans, A. T., Tompkins, M. K., Macisco, J., ... Peters, E. (2017). Effects of Pictorial Warning Labels for Cigarettes and Quit-Efficacy on Emotional Responses, Smoking Satisfaction, and Cigarette Consumption. *Annals of Behavioral Medicine*, pp. 1–12. <https://doi.org/10.1007/s12160-017-9916-y>
- Shiyanbola, O. O., Smith, P. D., Huang, Y. M., & Mansukhani, S. G. (2017). Pharmacists and patients feedback on empirically designed prescription warning labels: a qualitative study. *International Journal of Clinical Pharmacy*, 39(1), 187–195. <https://doi.org/10.1007/s11096-016-0421-3>

- Tannenbaum, M. B., Hepler, J., Zimmerman, R. S., Saul, L., Jacobs, S., Wilson, K., & Albarracín, D. (2015). Appealing to Fear: A Meta-Analysis of Fear Appeal Effectiveness and Theories. *Psychological Bulletin*, *141*(6), 1178–1204. <https://doi.org/10.1037/a0039729>
- VanEpps, E. M., Downs, J. S., & Loewenstein, G. (2016). Calorie Label Formats: Using Numeric and Traffic Light Calorie Labels to Reduce Lunch Calories. *Journal of Public Policy & Marketing*, *35*(1), 26–36. <https://doi.org/10.1509/jppm.14.112>.

