

Message appeal and presentation order of public service advertisement: an experimental study of egg enriched with omega-3 promotion

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ABSTRACT

Some manufacturers have strengthened promotion by including the third party reviews on leaflet in the product packaging to gain a better market response. Third Party Organization (TPO) endorsers in rational appeal advertisement did not perform well compared to those in emotional appeal advertisement. This study analyzes the effect of emotional and rational appeal advertisements on perceived persuasion and presentation order identity of third party organization endorser and message content in advertising on perceived persuasion. Experimental laboratory with factorial design 2x2 advertisements type (rational vs. emotional) and presentation order of identification source and message (recency vs. primacy) were done on graduate students in Faculty of Animal Science, Gadjah Mada University, using random assignment to put subjects to reduce bias. It shows that rational and emotional appeals has no significant effect on perceived persuasion where the perceived persuasion average of rational advertisements effect was 5.6453 compared to 5.6247 on emotional advertisements effect. Furthermore, in rational appeal advertisement the recency presentation order affect higher perceived persuasion ($p < 0.01$) that it was 6.0000 than primacy presentation order which was 5.2907. However, in emotional type public service, presentation order has no effect to the perceived persuasion which was 5.5275 in recency presentation order compare to 5.6822 in primacy presentation order.

ABSTRAK

Beberapa produsen memperkuat promosi dengan memasukkan ulasan pihak ketiga di leaflet dalam kemasan produk untuk mendapatkan respon pasar yang lebih baik. Third Party Organization (TPO) endorser dalam iklan daya tarik rasional tidak berkinerja baik dibandingkan dengan yang ada di iklan yang berdaya tarik emosional. Penelitian ini menganalisis pengaruh iklan daya tarik emosional dan rasional yang dirasakan dan presentation order identity endorser pihak ketiga organisasi dan isi pesan dalam persuasi iklan yang dirasakan. Eksperiment laboratorium dengan rancangan faktorial 2x2 jenis iklan (rasional vs emosional) dan presentation order dari sumber identifikasi dan pesan (kebaruan vs keutamaan) dilakukan pada mahasiswa pascasarjana di Fakultas Peternakan, Universitas Gadjah Mada, menggunakan random assignment untuk mengurangi Bias. Hasilnya menunjukkan bahwa daya tarik rasional dan emosional tidak berpengaruh signifikan pada persuasi yang dirasakan dan rata-rata persuasi dirasakan pada efek iklan rasional yaitu 5,6453 dibandingkan dengan 5,6247 pada efek emosional iklan. Selanjutnya, dalam rational appeal advertisement, recency presentation order berpengaruh lebih tinggi pada perceived persuasion ($p < 0.01$) yaitu 6.0000 daripada primacy presentation order yaitu 5.2907. Namun, dalam emotional type public service, urutan presentasi tidak berpengaruh terhadap persuasi yang dirasakan yaitu 5,5275 dalam recency presentation order dibandingkan dengan 5,6822 dalam primacy presentation order.

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1. INTRODUCTION

Today's human concern of dietary has moved from foods that meet the needs of nutritional adequacy to foods that offer longer-term prevention of chronic diseases which met from functional food. In this case, functional food is a group food that naturally or through a process containing one or more compounds that have specific physiological functions and health benefits. They are consumed in normal amounts and do not give a contraindication to the recommended amount of consumption of the metabolism of other nutrients (Astawan 2005).

The definition above is in line with consensus at the First International Conference on East-West Perspectives on Functional Foods in 1996. It also defines functional foods as foods that contain active components that can provide health benefits, beyond its basic benefits provided by the nutrients contained in them (Widowati 2011). Functional food of animal product varies on fortified foods and beverages form with addition of a number of healthy ingredients such as Omega-3, antioxidants and probiotics in dairy and non-dairy product such as meat and egg.

Japan is the pioneer of functional foods which began in the 1990s then (Widowati, 2011) and until recently, Japan, USA, and Europe are the biggest markets of functional food (Williams, Pehu & Ragasa 2006) that valued U.S. \$ 30 in 2007 (Bech-Larsen 2007). That market size is the result of functional food industry growth rate that is higher than the conventional food which is 10% per year compared to 2-3% per year (Rextroat 2003) and in 2009 functional food market continued to grow at a rate ranging between 8.5% and 20% annually (Waterhouse 2011).

Functional food is introduced to Indonesia by the early 2000s in line with the lifestyle changing and consumer awareness for a being healthier despite the fact that Indonesia is one country that has a natural functional food, especially in the form of beverage such as *wedang jahe*, *wedang secang*, *dadih* and *dali* (fermentation buffalo milk). Limited promotional efforts cause not all functional foods to be widely accepted. Conceptually, an attribute that is offered in functional food named credence quality requires high cost is to be detected before or after the purchase so that it makes more work to do for the marketers (Lee & O'Connor 2003). The high cost of attribute detection resulted in the most of the consumers generally use assessment conducted by a third party or recommendation of salesperson.

One product that has a great chance to be developed and marketed is eggs enriched with Omega-3 to fulfill the needs of healthier animal product. This could be the result of marketer information that is to develop a deep understanding of what potential customers need and inform to the company (Chesbrough 2003). The fact shows that egg that is one of the top ten ranked functional foods named by consumer (Rahavi & Kapsak, 2010). Technological developments such as chicken rations manipulation were intended to change the composition of fatty acids in the eggs to produce eggs with saturated fatty acid content and lower cholesterol.

The product mentioned above can be consumed to prevent the prevalence of cardiovascular disease which is quite high in developing countries at 28% (Waty & Hasan, 2013) by lowering blood cholesterol levels, which is one of the indicators of the cardiovascular disease prevention. Eggs enriched with Omega-3 are distributed through the supermarket chain to upper-middle socioeconomic strata market segments since the price is set higher than conventional eggs. A number of manufacturers have involved and included third party reviews on leaflet in the product packaging to gain a better consumer acceptance. However, the data shows that the value of sales of Omega-3 enriched eggs in Indonesia is relatively still around 0.3 - 0.5% of the total value of sales of chicken eggs which is 18.7 billion dollars per year (Marketing 2006).

The above condition indicates a slow market penetration of Omega-3 eggs in Indonesian market because the potential customers are not aware of the availability as well as the advanced of the product (Ricketts & Ricketts, 2010). In order to increase awareness as part of penetration strategy, marketers need to develop communication mix that capable to inform and persuade potential market. It has been more important when consumer do not pay enough attention to read food label carefully as found in study of functional food buying process (Syahlani 2008a). Advertisement has to be created as the right to catch the consumers' attention (Cravens & Piercy 2009). Experimental study on advertisement that was conducted to examine the effects of marketing communications showed the weak role of independent agencies as the third party organization endorsement (TPO) in persuading consumers (Syahlani 2007). TPO is related closely to individual expert endorsement and potentially viewed as more independent in order to deliver product reviews (Dean & Biswas, 2001).

The existence of TPO in a public service advertisement is expected to enhance the credibility of the product since the reviews conducted independently and is not influenced by the interests of the TPO on the sales of these products (Pham and Johar, 1997). It will also increase product reputation (Wang & Muehling 2012) and affect consumer belief and attitudes (Dean & Biswas 2001). However, the question is the weak role of TPO due to its weak credibility or attractiveness or influence of emotional vs. rational appeals selection in advertising in order to encourage better information processing. Emotional appeal advertisements have greater flexibility to suit the taste of audiences than advertisements with a rational appeal (Syahlani 2007).

Rational appeal in advertisements has lowered participant attention that affects information processing of advertisement messages mean while emotional appeal could motivate individuals for a better information process (Phuc 2011) even though this process is also influenced by the level of health motivation as a cue of consumer involvement to the product (Syahlani 2008b). Schiffman, Kanuk & Wisenblit (2010) describe that order effect of advertisement in television shows it affects audience receptivity. It is still in an argumentation whether advertisement material is presented first (primacy) or last (recency) at one set of show will be more effective. Thus, a specific study needs to be conducted to examine differences in the effects of rational and emotional advertising theme and order effect of the TPO mention in an advertisement. Therefore, an experimental study was developed to examine the effects presentation order of TPO as a source of information and message content of audio visual public service advertisement in persuading consumers.

2. THEORETICAL FRAMEWORK AND HYPOTHESIS

Few empirical studies showed that experts are more effective than others in advertisement (Pratkanis & Gliner 2004-2005; Soliha et al. 2014) by lowering the risk perception (Biswas, Biswas & Das 2006; Soliha & Zulfa 2009). However, other empirical studies also showed the lack of empirical understanding of what must be considered in public service advertisements (Lang & Yegiyan, 2008).

A study conducted by Syahlani (2007) showed that TPO in rational appeal advertisement did not show the effects of persuasion stronger than the

typical endorser in emotional appeal advertisement. One of the reasons is that TPO does not have a strong attractiveness despite it perceived neutral and has high credibility but so there is persuasive effect noticeably higher in commercial advertisement rather than public advertisement (Wang & Lin 2011). Dean & Biswas (2001) also propose that typical consumer endorser type is more suitable for low risk product or low involvement product (Friedman & Friedman 1979). H_1 : Emotional appeal advertising affects perceived persuasion toward the efficacy of the product higher rational appeal advertising.

There is a criticism to the order of public service advertisement that independent agencies as source of information presentation order at the end of public service advertisement undermine the credibility of independent agencies to influence information processing. This criticism was based on studies Cameron (1994) and Pratkanis et al. (1988) who describe that recency type presentation order in advertisements that is the mention of the TPO identity in the beginning of advertisement and followed with the content of message that will lead to stronger integration information processing between TPO identity and product information. In contrast, type of primacy (advertisement that is starting with the message content and closed with the mention TPO identity) there is a chance of weak integration in information processing. The name of TPO in the early part of advertisements put TPO as a central attention that determine information processing (Homer & Kahle 1990). It is also taken from belief-adjustment theory that an individual believes is affected more when the product information presented at the end (recency) than at the beginning (primacy) of the advertisement because the product information will be available in the working memory of consumer (Buda & Zhang 2000).

However, mixed results have been obtained from a number of studies of TPO advertising effect on consumer response (Wang & Lin 2011). Rational appeal that is generally used in public service advertisements with independent agency as TPO might be one possible cause. Inability of public service advertisements that mostly delivered in rational appeal to meet the tastes of consumer produces low attention of consumer. Expert endorsers that heavily used in public service advertisements do not attract audience better than typical endorser (Syahlani 2007). Emotionally charge advertising appeal may exhibit a tendency

Table 1
The Results of the Different Advertising Appeals Emotional vs. Rational and Presentation Order Primacy vs. Recency on Perceived Persuasion

| Independent Variable | Perceived Persuasion | | | |
|--------------------------------|----------------------|--------|--------|-------|
| | Average | SD | t-stat | Sig. |
| Rational (N= 60) | 5.6453 | 0.9158 | -0.108 | 0.915 |
| Emotional (N = 43) | 5.6247 | 0.9758 | | |
| Rational advertisement (N=60) | | | | |
| Primacy (N=30) | 5.2907 | 1.0618 | -3.088 | 0.003 |
| Recency (N= 30) | 6.0000 | 0.6751 | | |
| Emotional advertisement (N=43) | | | | |
| Primacy (N=27) | 5.6822 | 0.8666 | 0.498 | 0.621 |
| Recency (N=16) | 5.5275 | 1.1614 | | |

to attention (Phuc 2011), emotional response (Moore, Harris & Chen 1995) and attitude toward advertisement (Yeh & Lin 2010). Based on those arguments, a hypothesis can be stated as follows:
H₂: Recency type presentation of public service advertisement affects perceived persuasion toward the efficacy of the product higher than primacy type.

3. RESEARCH METHOD

Experimental laboratory was conducted in order to test causal effect of independent variable on dependent variable and control other variables that might contaminate the relationship (Sekaran & Bougie 2010). An experimental factorial design 2×2 with independent variables were advertisements types (rational vs. emotional) and presentation order of identification TPO and message (recency vs. primacy). Rational appeal advertising in this case is the public service advertising that introduce an expert as representative of independent agency (TPO) while emotional appeal advertising put common type of consumer in as an endorser. Both approaches are generally used advertisements in advertising in Indonesia. Despite trustworthiness, an expert endorser has special knowledge to deliver the product claim while a typical endorser was assumed as the audience friends that is trusted more than strangers (Kotler & Keller 2013).

Under graduate students at the same level that enrolled in Faculty of Animal Science, University Gadjah Mada were used as subjects on the basis that they understand the topic so that they can understand the information in food functional advertising as an experimental treatment. Random assignment was used to put subjects to the experimental group in order to reduce bias from subject variance (Cooper & Schindler,

2006). Demographic variables such as age and gender as well as the role and activity of subject in food shopping were measured to control the possibility of confounding effects. Participants were placed in the class and received a series of advertisements exposition including one of the advertisements to be treated in this experiment. Participants then filled out a questionnaire that is used to measure the treatment effect on the dependent variable that is perceived persuasion on product attribute.

4. DATA ANALYSIS AND DISCUSSION

Based on Table 1, H₁ testing result indicated that rational and emotional appeals had no significant effect on perceived persuasion variable. The mean of perceived persuasion for both rational and emotional treatment group were relatively high that were 5.6453 and 5.6427 (scale 1-7), respectively. This result demonstrated that both rational and emotional appeals, known public service advertisement, were able to form a positive attitude toward the product attributes, even though rational appeal advertisement used an expert as the endorser while emotional advertisement used a typical endorser. H₁ result seems to be inconsistent with previous study that emotional appeal revealed stronger effect than rational-appeal (Syahlani, 2007). However, in that study emotional appeal was embedded in a commercial advertisement while rational appeal was used in public-service advertisement. Therefore, the different effect could be the bias effect of comparing commercial vs public-service advertisement.

There is no significant effect of rational and emotional type in public service advertisement. It can be explained because the subjects who involved in this study has high involvement to

Table 2
Analysis of Variance Result of Public Service Advertisement Type on Perceived Persuasion

| Independent Variable | Perceived Persuasion | | | | |
|--------------------------|----------------------|--------|---------------|--------|-------|
| | Average | SD | Levene's Test | F stat | Sig. |
| Recency-Rational (N=30) | 6.0000 | 0.6751 | 0.065 | 1.804 | 0.172 |
| Primacy-Emotional (N=27) | 5.6822 | 0.8666 | | | |
| Recency-Emotional (N=16) | 5.5275 | 1.1614 | | | |

Table 3
Homogeneity Testing of Background Variables

| Variable | Pearson Chi-Square | Asymp Sig. (2-sided) | Inference |
|----------------------------------|--------------------|----------------------|------------------------------------|
| Age | 38.990 | 0.001 | Potentially as moderating variable |
| Gender | 1.277 | 0.735 | Homogeneous |
| Involved in food decision making | 0.857 | 0.836 | Homogeneous |
| Involved in food shopping | 5.871 | 0.118 | Homogeneous |

product categories that is Omega-3 egg by high mean of healthy life motivation variable. Data showed the percentage subject with high healthy life motivation (mean average ≥ 3.5) was 90.3% then only 9.7% of subjects have low healthy life motivation (mean average < 3.5). The high involvement to the product would enact well information processing both central route and peripheral route persuasion, so the different type of endorsers would be no matter in the information processing. This result is consistent with finding based on empirical study conducted by Syahlani (2008b) that in general health motivation influence consumer in information acquisition process in functional food buying decision making by resulting better knowledge and attitude than individual with low health motivation (Syahlani 2008b).

Based on Table 2, H2 testing result showed that recency presentation order in rational appeal persuasion affected perceived persuasion more than primacy presentation order ($p < 0.01$). This result indicated that pronouncing TPO identity on the beginning of advertisement was capable to increase the connectivity of information source and message content. Therefore, information that was delivered by recency type of rational appeal public advertisement developed perceived persuasion better to the product attribute as empirical evidence obtained by (Homer & Kahle 1990) that the TPO is able to be the central attention to the subject when subject are digesting the information embedded in service public advertisement.

On the other hand, presentation order type in emotional type public service had no effect on the perceived persuasion. Again, as it was con-

firmed by other empirical study that emotional appeal in advertisement has ability to meet the audience taste so as to foster a positive attitude toward the product attributes (Syahlani 2007). Therefore, no matter identity of the TPO mention at the earlier or later of emotional appeal in public service advertisements, both presentation order type could lead persuasion effect. Emotional appeal advertisement was capable to stimulate audience emotion that would interact to the attention since both of are involved in information processing (Phuc 2011). Performance capabilities of emotional appeal advertisement indicated by the relatively high mean value of perceived persuasion among treatment groups, that was 5.6822 in primacy and 5.5275 in recency presentation order.

Further analysis was conducted using ANOVA to justify similarity of capabilities emotional appeal advertisements both primacy and recency to recency rational appeal that showed there was no difference of those types of advertisements in influence perceived persuasion (see Table 2). This confirmed that emotional appeals no matter the presentation order could lead stronger persuasion as on recency rational appeal advertisement. However, these studies did not control previous knowledge on functional food variables that possibly to interact with message appeals in information processing. As an example, strong claim in advertisement content is more successful than weak claim if involvement is controlled (Petty & Cacciopo 1990). But, it can be confirmed that demographic variable and role of subject in food decision-making process and shopping behavior were controlled to prevent those variables to be confounding effects (see

Table 3). Table 3 showed that age potentially worked as moderating variable, but further test conducted to confirm age as moderating variable did not support ($F = 1.361$, $\text{sig.} = 0.174$). This result means there is no significant evidence of age to be moderating variable.

5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

It can be generalized that that emotional and rational type had no effect on persuasion towards the product. However, presentation order of TPO identity at the beginning of advertising affected perceived persuasion in rational type of public service advertising and resulted perceived persuasion as better as those emotional appeal public service advertisement.

It implies that marketer should take into account the attention of consumers because the estimates show that people look at advertisements but few of them really take something in their purchasing decision process due to information overloaded. The attention could be attained through stimulating emotional state of the consumer from the emotional appeal public service advertisement. Another strategy that, it could be done to enhance the audience attention when public service advertisement is the compulsory is by informing the name of TPO earlier followed by the message content to integrate the information processing better. Thus, care must be taken when designing messages to achieve perceived persuasion as expected.

Suggestion for further research is that it requires exploring the effect of level of involvement on relation of presentation order and persuasion as well as attitude toward product. Study in different product categories related to health issue is also needs to enhance presentation order empirical study.

The limitation of this research is that this research used only one product category that is omega-3 eggs as an example of functional food product categories. Therefore, the result may only applicable only to other product categories that have similar attributes to omega-3 eggs.

REFERENCES

- Astawan, M 2005, 'Pangan Fungsional untuk Kesehatan yang Optimal', *Info Teknologi Pangan*, Faculty of Agricultural Technology and Engineering, Bogor Agricultural University, viewed 21 July 2013, <http://web.ipb.ac.id/~tpg/de/pubde_ntrt_nhlth_pangfung.php>.
- Bech-Larsen, T & Scholderer, J 2007, 'Functional foods in Europe: consumer research, market experiences and regulatory aspects', *Trends in Food Science & Technology*, vol. 18, pp 231-234.
- Biswas, D, Biswas, A & Das, N 2006, 'The differential effects of celebrity and expert endorsements on consumer risk perceptions', *Journal of Advertising*, vol. 35, pp. 17-31.
- Buda, R & Zhang, Y 2000, 'Consumer product evaluation: the interactive effect of message framing, presentation order, and source credibility', *Journal of Product and Brand Management*, vol. 9, no. 4, pp. 229-242.
- Cameron, GT 1994, 'Does publicity outperform advertising? An experimental test of the third-party endorsement', *Journal of Public Relation Research*, vol. 6, no. 3, pp. 185-207.
- Chesbrough, HW 2003, 'The era of open innovation', In *Strategic management in the innovation management: Strategy approach and tools for dynamic innovation capabilities*, Publics Corporate Publishing and Wiley-VCH Verlag GmbH & Co KGaA, Erlangen.
- Cooper, DR & Schindler, P 2006, *Business research methods*, McGraw-Hill International Edition, Singapore.
- Cravens, DW & Piercy, NF 2009, *Strategic Marketing*, 9th edition, McGraw-Hill International Edition, Singapore.
- Dean, DH, Biswas, A 2001, 'Third-party organization endorsement of products: an advertising cue affecting consumer pre-purchase evaluation of goods and services', *Journal of Advertising*, vol. 30, no. 4, pp. 41-57.
- Friedman, HH & Friedman, L 1979, 'Endorser effectiveness by product type: celebrities worked best-with exception', *Journal of Advertising*, vol. 19, no. 5, pp. 63-71.
- Homer, PM & Kahle, LR 1990, 'Source expertise, time of source identification, and involvement in persuasion: an elaborative processing perspective', *Journal of Advertising*, vol. 19, no. 1, pp. 30-39.
- Kotler, P & Keller, L, 2013, *Marketing Management*, 14th edition, Pearson Horizon Editions, Malaysia.
- Lang, A & Yegiyan, NS 2008, 'Understanding the interactive effects of emotional appeal and claim strength in health message', *Journal Broadcasting & Electronic Media*, vol. 52, no. 3, pp. 432-447.
- Lee, Y & O'Connor, GC 2003, 'The impact of com-

- munication strategy on launching new products: the moderating role of product innovativeness', *Journal Product Innovation Management*, vol. 20, pp. 4-21.
- Marketing 2006, 'Bila Telur Dikasih Merek', *Marketing* 3, (VI Maret).
- Moore, DJ, Harris, WD & Chen, HC 1995, 'Affect intensity: an individual difference response to advertising appeals', *Journal of Consumer Research*, vol. 22, pp. 154-163.
- Petty, RE & Cacioppo, JT 1990, 'Involvement and persuasion: Tradition versus integration', *Psychological Bulletin*, vol. 107, no. 3, pp. 367-374.
- Pham, MT & Johar, GV 1997, 'Contingent processes of source identification', *Journal of Consumer Research*, vol. 24, pp. 249-265.
- Phuc, TTH 2011, 'Visual attention and emotional devaluation of products: an implication for advertisers', *Far East Journal of Psychology and Business*, vol. 3, no. 2, pp. 38-58.
- Pratkanis, AR, Greenwald, AG, Leippe, MR & Baunggardner, MH 1988, 'In search of reliable persuasion Effects: III the sleeper effect is dead. Long live the sleeper effect', *Journal of Personality and Social Psychology*, vol. 54, pp. 203-218.
- Pratkanis, AR & Gliner, MD 2004-2005, 'And when shall a little child lead them? Evidence for an altercasting theory of source credibility', *Current Psychology: Developmental, Learning, Personality, Social*, vol. 23, no. 4, pp. 279-304.
- Rahavi, EB & Kapsak, WR 2010, 'Health and wellness product development', in *Prepared Foods Network*, viewed 21 July 2013, <<http://www.preparedfoods.com/articles/print/article-health-and-wellness-product-development-february-2010>>.
- Rextroat, T 2003, *Why not Functional Yogurt, Dairy Food*.
- Ricketts, C & Ricketts, K 2010, *Agribusiness : Fundamentals and Applications*, 2nd edition, Delmar Cengage Learning, Canada.
- Schiffman, LG, Kanuk LL & Wisenblit, J 2010, *Consumer Behavior*, 10th edition, Prentice Hall, New Jersey.
- Sekaran, U & Bougie, R 2010, *Research Methods for Business: A Skill Building Approach*, 5th edition, John Wiley and Sons, New York.
- Soliha, E, Dharmmesta, BS, Purwanto, BM and Syahlani, SP 2014, 'Message framing, source credibility and consumer risk perception with motivation in functional food advertisements', *American International Journal of Contemporary Research*, vol. 4, no 1, pp. 1-16.
- Soliha, E & Zulfa, N 2009, 'The difference in consumer risk perception between celebrity endorser and expert endorser in college advertisements', *Journal of Indonesian Economy & Business*, vol. 24, no. 1, pp. 100-114.
- Syahlani, SP 2007, 'Kajian efek iklan dan advertorial pada pengetahuan dan persuasi yang dirasakan: studi proses adopsi pangan fungsional', *Jurnal Ekonomi dan Bisnis Indonesia*, vol. 22, no. 1, pp. 99-109.
- Syahlani, SP 2008a, 'Food Label Evaluation in Adoption Process of Functional Food', *Mabis*, vol. 7, no. 2, pp. 101-111.
- Syahlani, SP, 2008b, 'Hubungan Motivasi Hidup Sehat dalam Proses Evaluasi Informasi Pangan Fungsional', *Ekonomi dan Bisnis*, vol. 9, no. 2, pp. 91-97.
- Wang, A & Lin, C 2011, 'Effects of content class with endorsement and information relevancy on purchase intention', *Management Research Review*, vol. 34, no.4, pp. 417-435.
- Wang, A & Muehling, DD 2012, 'The moderating influence of brand status and source confirmation on third-party endorsement effects in advertising', *International Journal of Advertising*, vol. 31, no. 3, pp. 605-622.
- Waterhouse, DS 2011, 'The development of fruit-based functional foods targeting the health and wellness market: a review', *International Journal of Food Science and Technology*, vol. 46, pp. 899-920.
- Waty, M & Hasan, H 2013, 'Prevalensi penyakit jantung hipertensi pada pasien gagal jantung kongestif di RSUP H. Adam Malik', *E-Journal Fakultas Kedokteran*, Universitas Sumatera Utara, vol. 1, no. 1, pp. 1-5.
- Widowati, S 2011, 'Potensi dan status minuman tradisional sebagai pangan fungsional', *Prosiding Seminar Nasional Pangan Fungsional*, pp. 84-89.
- Williams, M, Pehu, E & Ragasa, C 2006, 'Functional foods: opportunities and challenges for developing countries', *Agricultural and Rural Development Note*, vol. 19, pp. 1-4.
- Yeh, JT & Lin, CL 2010, 'Measuring the effectiveness of advertisement sent via mobile phone: implications of the appeal, endorser, and involvement model and purchasing behaviour', *Social Behavior and Personality*, vol. 38, no. 2, pp. 249-256.

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