

Measuring Reliability and Validity of Instrument: The Dimensions of Advertising Literacy in Determining the Advertising Literacy Index

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ABSTRACT

Advertising literacy has been a topic of discussion for decades long and up till today, the subject is still debated on. In fact, the dimensions of advertising literacy have evolved along with its many factors and varied key terms. Thus, this study was conducted to identify the key dimensions intact with advertising literacy through the use of factor analysis with the objective of measuring the reliability and validity of the dimensions present in advertising literacy. A survey was conducted at three locations of the Public's Housing Program (PHP) in Kuala Lumpur to accumulate the response of this study. The use of the Exploratory Factor Analysis (EFA) with varimax rotation revealed that there are four factors which determines the advertising literacy index. Initially, a factor analysis on the 4 dimensions with 41 items was done and this showed that the numbers of dimensions are retained, yet, only 22 items could be measured. The results of this analysis contributed to the study by determining the reliability and validity of the four dimensions of advertising literacy; informational, visual, rhetorical and promotional literacy is applicable to other studies. In addition to this, it develops awareness towards the people in the advertising industry mainly the advertisers on how to maximise their advertising strategy by understanding the targeted audience intended in a deeper sense.

Keywords: *Advertising literacy, instrument, advertising literacy dimensions, advertising literacy instrument, lower socio-economic status (LES)*

INTRODUCTION

Today's world is filled with pieces of information of cutting-edge technology from the business world to the consumer world. The period which we live in today; commonly known as the "Knowledge Age", involves advertising as the new power of media providing countless information as an economic-growth engine (Bughin and Spittaels 2012). The growth of the advertising industry with new businesses and concepts is expanding rapidly, which proves the significance of the industry. All segments of population can be reached by exploiting the power of media which include television, newspapers, magazines (or other printed material) and Internet to distribute various messages (Eng May Chuen et.al 2016). Thus, advertising literacy is a needed skill in our society today as the lives of consumers are flooded with incalculable marketing and advertising messages. The skill to identify, understand, evaluate and respond towards all the information available is necessary (Malmelin 2010). For example, advertisements on health will be processed by the consumers

intelligently with the knowledge on health (Rezal Hamzah, Emma Mohamad and Mohd Yusof Abdullah 2016). Thus, this is believed to be a necessary skill in influencing the purchasing decision of the consumer.

LITERATURE REVIEW

Consumers need solid and rich advertising knowledge, referred as “advertising literacy” skills, to improve and develop self-advertising literacy skills which acts as a filter in processing messages conveyed by advertisements (Livingstone and Helsper 2006; Potter 2010). Since the late 20th century, advertising literacy has been a subject of great debate amongst academic scholars and it is still being discussed upon today. In fact, in empirical studies pertaining to the dimensions of advertising literacy, no consensus has been reached on the dimensions. Most of the studies done in the past measured advertising literacy in various viewpoints. In a study conducted by O’Donohue and Tynan (1998), advertising literacy was defined through three dimensions which were *competent consumers*, *surrogate strategist* and *casual cognoscenti*. However, a recent study on this subject by Malmelin (2010) identified the dimensions in a new perspective. The dimensions revealed were not linked strongly to the consumers. However, it is based on the advertising content itself. To date, the proposed advertising dimensions; informational, visual, rhetorical and promotional literacy. Empirically, the current conceptualization of advertising literacy has evolved from the consumers’ segmentation bases to the distinctive features of advertising media. Hence, this study was conducted for the validity and reliability of items measured using the factor analysis to test the dimension of advertising literacy in advertising. It is hoped that the findings will be able to supply a consistent paradigm that could be implemented in measuring advertising literacy in the future.

METHODOLOGY

A. Participants

The sampling for this study was narrowed down towards the lower socio-economic status (LES) respondents. A total of 350 participants from three locations of the Public Housing Program (PHP) were selected to represent the LES population. The locations selected were PHP Hiliran Ampang, PHP Bukit Jalil and PHP Wangsa Sari which are located in the Klang Valley, Kuala Lumpur, Malaysia. Based on the statistics provided by the Ministry of Urban Wellbeing, Housing and Local Government (2015), the total number of population of PHP residents in Malaysia is 60,291 and 30,276 of them are in the Federal Territory of Kuala Lumpur.

B. Items of Measurement

An instrument in a form of questionnaire was used in this study. In order to measure the dimensions of advertising literacy, the instrument was developed based principally from Malmelin (2010). The dimensions proposed by the advertising literacy model (Malmelin 2010) were retained. However, the items derived from each dimensions were adjusted based on prior literatures pertaining to the topic of advertising literacy to fit the objective of the study. The current school of thought is that there are four dimensions of advertising literacy and they are; informational literacy, visual literacy, rhetorical literacy and promotional literacy.

Hence, four (4) dimensions with a total of forty-one (41) items were constructed. The instrument was implemented with the use of the Five-Point Likert scale, which is also referred to as a method used in attitude scale (Salkind 2012) in allowing participants to express how much they agree or disagree (Sekaran&Bougie 2010) with the statements provided. The *independence* type, the *agreement* type, and the *frequency* type (Fabrigar& Wood 2007; Lee 2015) are the three types of measurement scales implemented. The scale that was used in this section were measured based on the following values of 1-strongly disagree, 2-disagree, 3-not sure, 4-agree and 5-strongly agree.

Table 1: Dimension and Questionnaire Items

| Dimensions | Items |
|----------------------------------|---|
| A. Informational Literacy | <ol style="list-style-type: none"> 1. The information is accurate. 2. The information is sufficient. 3. The information is relevant. 4. I am aware of the options of information available before making any decision. 5. I filter the information and only attend to what is important. 6. The source of information is known. 7. I do not trust the information provided. 8. I evaluate the source and information to ensure the reliability (Credibility). 9. I seek more information from different perspectives before evaluating the product or services. 10. I use technology/ the Internet to find more information regarding the product or services. 11. I discuss the information on social media before making any purchasing decisions. |
| B. Visual Literacy | <ol style="list-style-type: none"> 12. The visual is clear. 13. The visual used is relevant. 14. The visual used is not enough. 15. The visual used in the advertisement was not properly design. 16. The layout of the advertisement is not professionally done. 17. The visual and information is sufficient to attract consumers. 18. Visual is not important in an advertisement. 19. I understand the advertisements as a source of artistic pleasure. 20. The visuals used are not artistically expressed. 21. The visuals should be in colour. 22. The visuals used should be main highlight to attract potential consumers. |

- C. Rhetorical Literacy**
- 23. I am aware that different advertisements are targeted to different target audiences.
 - 24. There is persuasive element used in the advertisement.
 - 25. The advertisement evoke an emotional response.
 - 26. I have a negative emotion when I see an advertisement.
 - 27. Advertisement using logos gives a direct indication of what the company does.
 - 28. Advertisement using statistics from reliable experts indicate the company is reliable, honest and credible.
 - 29. I can critically assess the mood of the advertisement.
 - 30. I can critically assess the visual expressions of the advertisement.
 - 31. I understand there are different strategy by different advertisers.
 - 32. Different form of advertisement (television, print, and online advertisement) implement different persuasive strategy in advertising.
 - 33. I believe that rhetoric / persuasive element is important in advertising regardless for big or small company.
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- D. Promotional Literacy**
- 34. I understand that the intention of an advertisement is to promote something.
 - 35. I can identify different forms of advertising media and commercial communications (Print media, online Media, etc.).
 - 36. I can position an advertising medium amongst various media.
 - 37. I know that advertisers use various promotion strategy (discounts, offers, etc.) In grabbing customer's attention.
 - 38. I use technology/Internet to check the competitor's promotional strategy before making any purchasing decision.
 - 39. The technology/Internet helps me to communicate with the society of the promotional items advertised by the advertisers.
 - 40. I am aware the role of media in contributing towards the economy.
 - 41. In today's information age, I understand that we are all surrounded by converged media.
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FINDINGS AND DISCUSSION

A. Factors Analysis

The Kaiser Meyer Olkin (KMO) measure reading should be greater than 0.60 and is considered as inadequate if less than a 0.50 reading is obtained. The Bartlett's Test of Sphericity should be significant with significance values of less than 0.005. As shown in Table 2, the KMO for the four sections are more than 0.60, indicating that the items are factorable while the Bartlett's test conducted was significant with the significance value of less than 0.005. For this study, the findings determined that all the items measured correlated highly to provide a reasonable basis for a factor analysis.

Table 2. Kaiser Meyer Olkin (KMO) and Bartlett's Test of Sphericity

| Dimensions | KMO | Bartlett's |
|----------------------|-------|------------|
| Information Literacy | 0.713 | 0.000 |
| Visual Literacy | 0.649 | 0.000 |
| Rhetorical Literacy | 0.608 | 0.000 |
| Promotional Literacy | 0.835 | 0.000 |

The anti-image correlation mix procedure was conducted in this study to help identify incompatible items which do not correlate with any of the factors. The data can be identified in a diagonal view "Sampling adequacy of individual items", and values less than 0.5. Due to this, the corresponding item is advised to be removed from the instrument. Based on Table 3 and Table 4, the results of the anti-image are viewed diagonally, with values of more than 0.5 indicating that the items are suitable for use. Items with the value of below than 0.5, represents that the items need to be examined further and will likely be unsuitable for measurement. Thus, for informational and visual literacy dimensions, there were four (4) items (Item number 6, Item 13, Item 18, and Item 20) identified below the value of 0.5, and were reported as unsuitable items. The results shown in Table 5 and Table 6 indicate that for the dimension of Rhetorical Literacy, there were three (3) items (Item 24, Item 25 and Item 26) reported to be unsuitable with the value of below 0.5. All the other values fit the item measurement accordingly and should be included in factor analysis.

Table 3. Anti-Image (Information Literacy)

Anti-image Matrices

| Informational Literacy | Item 1 | Item 2 | Item 3 | Item 4 | Item 5 | Item 6 | Item 7 | Item 8 | Item 9 | Item 10 | Item 11 |
|------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Item 1 | .723 ^a | -.430 | -.443 | .244 | -.182 | .190 | .076 | -.079 | .009 | -.023 | .069 |
| Item 2 | -.430 | .684 ^a | -.307 | -.226 | .224 | -.415 | -.233 | .005 | .031 | -.154 | .181 |
| Item 3 | -.443 | -.307 | .731 ^a | -.217 | .041 | -.124 | -.298 | -.103 | .056 | .062 | -.268 |
| Item 4 | .244 | -.226 | -.217 | .585 ^a | -.380 | .251 | .624 | .016 | -.121 | .022 | .117 |
| Item 5 | -.182 | .224 | .041 | -.380 | .549 ^a | -.266 | -.333 | .247 | -.450 | -.322 | -.063 |
| Item 6 | .190 | -.415 | -.124 | .251 | -.266 | .380 ^a | .375 | .172 | -.020 | .133 | -.178 |
| Item 7 | .076 | -.233 | -.298 | .624 | -.333 | .375 | .593 ^a | .263 | .012 | .084 | .100 |
| Item 8 | -.079 | .005 | -.103 | .016 | .247 | .172 | .263 | .697 ^a | -.428 | -.227 | -.126 |
| Item 9 | .009 | .031 | .056 | -.121 | -.450 | -.020 | .012 | -.428 | .775 ^a | -.098 | -.020 |
| Item 10 | -.023 | -.154 | .062 | .022 | -.322 | .133 | .084 | -.227 | -.098 | .795 ^a | -.276 |
| Item 11 | .069 | .181 | -.268 | .117 | -.063 | -.178 | .100 | -.126 | -.020 | -.276 | .704 ^a |

Table 4. Anti-Image (Visual Literacy)

Anti-image Matrices

| Visual Literacy | Item 12 | Item 13 | Item 14 | Item 15 | Item 16 | Item 17 | Item 18 | Item 19 | Item 20 | Item 21 | Item 22 |
|-----------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Item 12 | .599 ^a | -.485 | .265 | -.371 | .155 | -.257 | .111 | -.019 | -.058 | -.090 | .277 |
| Item 13 | -.485 | .431 ^a | -.345 | .579 | -.184 | -.248 | -.140 | .105 | .066 | .225 | -.248 |
| Item 14 | .265 | -.345 | .734 ^a | -.294 | -.463 | .200 | .281 | .007 | -.183 | -.157 | .154 |
| Item 15 | -.371 | .579 | -.294 | .619 ^a | -.540 | -.195 | -.174 | .220 | -.034 | .124 | -.309 |
| Item 16 | .155 | -.184 | -.463 | -.540 | .720 ^a | .020 | -.102 | -.341 | .263 | -.109 | -.060 |
| Item 17 | -.257 | -.248 | .200 | -.195 | .020 | .654 ^a | -.074 | -.372 | .085 | .108 | -.032 |
| Item 18 | .111 | -.140 | .281 | -.174 | -.102 | -.074 | .469 ^a | -.055 | -.177 | .056 | .254 |
| Item 19 | -.019 | .105 | .007 | .220 | -.341 | -.372 | -.055 | .566 ^a | -.146 | -.130 | .005 |
| Item 20 | -.058 | .066 | -.183 | -.034 | .263 | .085 | -.177 | -.146 | .475 ^a | -.115 | -.295 |
| Item 21 | -.090 | .225 | -.157 | .124 | -.109 | .108 | .056 | -.130 | -.115 | .844 ^a | -.212 |
| Item 22 | .277 | -.248 | .154 | -.309 | -.060 | -.032 | .254 | .005 | -.295 | -.212 | .710 ^a |

Table 5. Anti-Image (Rhetorical Literacy)

Anti-image Matrices

| Rhetorical Literacy | Item 23 | Item 24 | Item 25 | Item 26 | Item 27 | Item 28 | Item 29 | Item 30 | Item 31 | Item 32 | Item 33 |
|---------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Item 23 | .724 ^a | -.225 | -.231 | .056 | -.164 | .082 | -.005 | .095 | -.083 | -.381 | .058 |
| Item 24 | -.225 | .456 ^a | -.328 | .070 | .197 | -.331 | .045 | -.142 | -.206 | .117 | .287 |
| Item 25 | -.231 | -.328 | .421 ^a | .361 | -.337 | .276 | -.127 | .305 | .288 | -.086 | -.127 |
| Item 26 | .056 | .070 | .361 | .405 ^a | -.264 | .045 | -.152 | .264 | .090 | -.114 | .164 |
| Item 27 | -.164 | .197 | -.337 | -.264 | .679 ^a | -.274 | -.090 | -.198 | -.204 | .109 | -.057 |
| Item 28 | .082 | -.331 | .276 | .045 | -.274 | .593 ^a | -.009 | -.077 | .197 | -.189 | -.381 |
| Item 29 | -.005 | .045 | -.127 | -.152 | -.090 | -.009 | .711 ^a | -.643 | -.248 | -.056 | -.134 |
| Item 30 | .095 | -.142 | .305 | .264 | -.198 | -.077 | -.643 | .540 ^a | .262 | -.235 | .162 |
| Item 31 | -.083 | -.206 | .288 | .090 | -.204 | .197 | -.248 | .262 | .615 ^a | -.400 | -.402 |
| Item 32 | -.381 | .117 | -.086 | -.114 | .109 | -.189 | -.056 | -.235 | -.400 | .731 ^a | .058 |
| Item 33 | .058 | .287 | -.127 | .164 | -.057 | -.381 | -.134 | .162 | -.402 | .058 | .592 ^a |

Table 6. Anti-Image (Promotional Literacy)

Anti-image Matrices

| Promotional Literacy | Item 34 | Item 35 | Item 36 | Item 37 | Item 38 | Item 39 | Item 40 | Item 41 |
|----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Item 34 | .814 ^a | -.277 | -.263 | -.088 | -.339 | .240 | -.111 | -.486 |
| Item 35 | -.277 | .827 ^a | -.037 | -.008 | .021 | -.101 | .278 | -.114 |
| Item 36 | -.263 | -.037 | .888 ^a | -.259 | .038 | -.215 | -.265 | .097 |
| Item 37 | -.088 | -.008 | -.259 | .916 ^a | .026 | .068 | -.092 | -.296 |
| Item 38 | -.339 | .021 | .038 | .026 | .742 ^a | -.451 | .132 | .153 |
| Item 39 | .240 | -.101 | -.215 | .068 | -.451 | .791 ^a | -.219 | -.431 |
| Item 40 | -.111 | .278 | -.265 | -.092 | .132 | -.219 | .868 ^a | -.190 |
| Item 41 | -.486 | -.114 | .097 | -.296 | .153 | -.431 | -.190 | .820 ^a |

a. Measures of Sampling Adequacy(MSA)

Table 7. Eigenvalue and Parallel Analysis

| Section | Component Number | Actual Eigenvalues from Principal Component Analysis (PCA) | Criterion Value from Parallel Analysis (Monte Carlo) | Decision |
|----------------------|------------------|--|--|----------|
| Information Literacy | 1 | 3.373 | 1.294 | Accept |
| | 2 | 2.873 | 1.214 | Accept |
| | 3 | 1.042 | 1.153 | Reject |
| Visual Literacy | 1 | 3.804 | 1.294 | Accept |
| | 2 | 1.882 | 1.214 | Accept |
| | 3 | 1.104 | 1.153 | Reject |
| | 4 | 1.025 | 1.096 | Reject |
| Rhetorical Literacy | 1 | 3.391 | 1.294 | Accept |
| | 2 | 1.908 | 1.214 | Accept |
| | 3 | 1.254 | 1.153 | Accept |
| | 4 | 1.037 | 1.096 | Reject |
| Promotional Literacy | 1 | 4.561 | 1.294 | Accept |

In addition, scree plots display the eigenvalues for each factor in a plot form on the y-axis and the number of factors on the x-axis. The scree plot suggests how many factors should be retained due to the way the slope levels showed promise and the other items were less than 1.0. The numbers of factors (components) revealed from the factor analysis could be confirmed further by looking at the comparison of the actual eigenvalues from the Principal Component Analysis (PCA) and the Criterion Value from the Parallel Analysis (Monte Carlo) as shown in Table 7.

Once the factors are accepted based on the eigenvalue of more than 1.0, the factors are analysed accordingly. Table 8, Table 9, Table 10 and Table 11 represent each dimension and revealed the results of the factor analysis that were tested to measure the suitability of the four (4) dimensions constructed.

Table 8. Factors Analysis of the Dimensions of Informational Literacy

| Section | Items | | Factor Loading | | |
|------------------------|-------|--|----------------|----------|-------------|
| | | | Factor 1 | Factor 2 | Commonality |
| Informational Literacy | 9 | I seek more information from different perspectives before evaluating the product or services. | 0.831 | | 0.705 |
| | 10 | I use technology/ the Internet to find more information regarding the product or services. | 0.799 | | 0.655 |
| | 8 | I evaluate the source and information to ensure the reliability (Credibility) | 0.719 | | 0.577 |
| | 5 | I filter the information and only attend to what is important. | 0.668 | | 0.481 |
| | 4 | I am aware of the options of information available before making any decision. | 0.614 | | 0.570 |
| | 11 | I discuss the information on social media before making any purchasing decisions. | 0.559 | | 0.349 |
| | 1 | The information is accurate. | | 0.888 | 0.797 |
| | 3 | The information is relevant. | | 0.876 | 0.807 |
| | 2 | The information is sufficient. | | 0.837 | 0.789 |

Table 9. Factors Analysis of the Dimensions of Visual Literacy

| Section | Items | | Factor Loading | | |
|-----------------|-------|---|----------------|----------|-------------|
| | | | Factor 1 | Factor 2 | Commonality |
| Visual Literacy | 14 | The visual used is not enough. | 0.839 | | 0.793 |
| | 15 | The advertisement was not properly design. | 0.864 | | 0.783 |
| | 16 | The layout of the advertisement is not professionally done. | 0.948 | | 0.905 |
| | 19 | I understand the advertisements as a source of artistic pleasure. | 0.501 | | 0.513 |
| | 21 | The visuals should be in colour. | 0.476 | | 0.518 |
| | 22 | The visuals used should be the main highlight to attract potential consumers. | 0.522 | | 0.619 |
| | 12 | The visual is clear. | | 0.756 | 0.643 |
| | 13 | The visuals used is relevant. | | 0.772 | 0.670 |
| | 17 | The visual and information is sufficient to attract consumers. | | 0.785 | 0.717 |

Table 8 shows the results of the factor analysis of the first dimension (informational literacy). The factor analysis (rotated component matrix) discovered that the items were sorted from the highest loading (item 9) "I seek more information from different perspectives before evaluating the product or services" from factor 1 with a loading of 0.831 to the lowest loading (item 11) "I discuss the information on social media before making any purchasing decisions" with loading of 0.559. For factor 2, the highest loading of 0.888 is item 1 "The information is accurate" and the lowest is item 2 "The information is sufficient with the loading of

0.837. Even though two (2) factors were revealed with the eigenvalues of more than 1, factor 2 needs to be removed as the items from the questionnaire bring the same meaning and multiple questions measures the same factor. For instance, the phrases “The information is accurate”, “The information is relevant” and “The information is sufficient”. The items were re-arranged accordingly where the same meaning was conveyed and hence, only one (1) factor (component) was maintained with six (6) items. According to Lai Oso (2014), media literacy help consumers to filter the information from various media sources.

Table 10. Factors Analysis of the Dimensions of Rhetorical Literacy

| Section | Items | | Factor Loading | | | |
|---------------------|-------|---|----------------|----------|----------|-------------|
| | | | Factor 1 | Factor 2 | Factor 3 | Commonality |
| Rhetorical Literacy | 23 | I am aware that different advertisements are targeted to different target audience. | 0.750 | | | 0.754 |
| | 32 | Different form of advertisement (television, print, and online advertisement) implement different persuasive strategy in advertising. | 0.721 | | | 0.659 |
| | 31 | I understand there are different strategies by different advertisers. | 0.650 | | | 0.676 |
| | 27 | Advertisement using logos gives a direct indication of what the company does. | 0.552 | | | 0.470 |
| | 30 | I can critically assess the visual expressions of the advertisement. | | 0.904 | | 0.842 |
| | 29 | I can critically assess the mood of the advertisement. | | 0.731 | | 0.729 |
| | 25 | The advertisement evoke an emotional response. | | | .705 | 0.678 |
| | 24 | There is persuasive element used in the advertisement. | | | 0.691 | 0.613 |
| | 26 | I have a negative emotion when I see an advertisement. | | | -.775 | 0.739 |

Table 11. Factors Analysis of the Dimensions of Promotional Literacy

| Section | Items | | Factor Loading | |
|----------------------|-------|--|----------------|-------------|
| | | | Factor 1 | Commonality |
| Promotional Literacy | 41 | In today’s information age, I understand that we are all surrounded by converged media. | 0.892 | 0.796 |
| | 34 | I understand that the intention of an advertisement is to promote something. | 0.865 | 0.748 |
| | 36 | I can position an advertising medium amongst various media. | 0.804 | 0.646 |
| | 31 | The technology/Internet helps me to communicate with the society of the promotional items advertised by the advertisers. | 0.799 | 0.639 |
| | 37 | I know that advertisers use various promotion strategy (discounts, offers, etc.) in grabbing our attention. | 0.769 | 0.591 |
| | 40 | I am aware the role of media in contributing towards the economy. | 0.736 | 0.541 |
| | 38 | I use technology/Internet to check the competitor’s promotional strategy before making any purchasing decision. | 0.573 | 0.329 |
| | 35 | I can identify different forms of advertising media and commercial communications (print media, online media, etc.) | 0.520 | 0.271 |

For the second dimension (Visual Literacy), the results of the analysis is shown in Table 9. Visual literacy was sorted into two (2) components with the highest loading of 0.948 (item 16) “The layout of the advertisement is not professionally done” and the lowest loading of 0.501 (item 19) “I understand the advertisements as a source of artistic pleasure” for factor 1. For factor 2, the highest loading with the loading factor of 0.772 is item 13 “the visual used is relevant” and the lowest with the loading of 0.756 is item 12 “ The visual is clear”. Items which

represent factor 2 are; item 12 “The visual is clear”, item 13 “The visual used is relevant” and item 17 “The visual and information is sufficient to attract customers” were edited to fit factor 1 as the items were reported to convey the same meaning. Therefore, only items in factor 1 were retained to represent the dimensions of Visual literacy with 6 items.

Table 10 of Rhetorical dimensions revealed three (3) factors from the analysis. Item 23 “I am aware that different advertisements are targeted to different target audiences” with the highest loading of 0.750 and the lowest loading is item 27 “Advertisement using logos gives a direct indication of what the company does” with 0.552. The second factor displays that item 30 “I can critically assess the visual expressions of the advertisements” is the highest with the loading of 0.904 and item 29 “I can critically assess the mood of the advertisement” which has the lowest loading with 0.731. The items were sorted for factor 3 with the highest loading of 0.705 in item 25 “The advertisement evokes an emotional response” and the lowest loading of -.775 in item 47 “I have a negative emotion when I see an advertisement”. From the analysis, it shows that item 30 and item 29 in factor 2 represents more of the visual dimension. Therefore, the two (2) items are more suitable to be placed in the visual dimension. As for item 24, item 25, and item 26 which represents factor 3, it could be named as a new dimension: Emotional literacy which is believed to be a new dimension, not currently listed as a dimension of advertising literacy (Malmelin 2010).

From the analysis for Promotional literacy, the sorted items were displayed in Table 11 with only one factor, with the highest loading of 0.892 in item 41 “In today’s information age, I understand that we are all surrounded by converged media” to the one with the lowest loading of 0.520 from factor 1 in item 35 “I can identify different forms of advertising media and commercial communications (Print media, online Media, etc.)”. All the items represent the dimension accordingly and all items were retained.

Table 12: Dimensions and Questionnaire Items (Revised)

| Dimensions | No. | Items |
|------------------------|-----|--|
| Informational Literacy | 1. | The information provided by the advertisement is appropriate. |
| | 2. | I seek more information from different perspectives before evaluating the product or services. |
| | 3. | I use technology/ the Internet to find more information regarding the product or services. |
| | 4. | I need to evaluate the source and information to ensure the credibility of the information provided. |
| | 5. | I filter the information and only attend to what is important. |
| | 6. | I am aware of the options of information available before making any decision. |

| | | |
|----------------------|----|---|
| | 7. | I need to discuss the information regarding an advertisement on social media before making any purchasing decisions. |
| Visual Literacy | 1. | The layout of the advertisement is not professionally executed. |
| | 2. | The advertisement was not properly design. |
| | 3. | The visuals used is not enough. |
| | 4. | The visuals used should be the main highlight to attract potential consumers. |
| | 5. | An advertisement is a source of artistic pleasure. |
| | 6. | The visuals used should be in colour. |
| | 7. | I can critically assess the visual expressions of the advertisements. |
| Rhetorical Literacy | 1. | I am aware that different advertisements are targeted to different target audience. |
| | 2. | Different form of advertisement (television, print, and online advertisement) implement different persuasive strategy in advertising. |
| | 3. | I understand there are different strategy by different advertisers. |
| | 4. | Advertisement using logos gives a direct indication of what the company does. |
| Promotional Literacy | 1. | In today's information age, I understand that we are all surrounded by converged media. |
| | 2. | I understand that the intention of an advertisement is to promote something. |
| | 3. | I can position an advertising medium amongst various media. Saya faham penggunaan iklan dalam semua jenis medium pengiklanan. |
| | 4. | The technology/Internet helps me to communicate with the society of the promotional items advertised by the advertisers. |
| | 5. | I know that advertisers use various promotion strategy (discounts, offers, etc.) in grabbing consumer's attention. |
| | 6. | I am aware the role of media in contributing towards the economy. |
| | 7. | I use technology/Internet to check the competitor's promotional strategy before making any purchasing decision. |
| | 8. | I can identify different forms of advertising media and commercial |

communications (Print media, online Media, etc.)

B. Reliability Analysis

Table 13. Reliability Analysis

| Dimensions/ Constructs | Number of Items | | Cronbach Alpha Values |
|------------------------|-----------------|-------|-----------------------|
| | Initial | Final | |
| Informational Literacy | 11 | 7 | 0.797 |
| Visual Literacy | 11 | 7 | 0.812 |
| Rhetorical Literacy | 11 | 4 | 0.721 |
| Promotional Literacy | 8 | 8 | 0.882 |

Table 13 shows the reliability analysis of the dimensions of advertising literacy. The acceptable reliability value of Cronbach Alpha should be more than 0.70 and the four (4) dimensions with a total number of 22 items were reliably measured in this study.

C. Normality Analysis

The result of skewness and kurtosis values were achieved and Table 14 shows to ensure the state of the distribution of data. Violation of the assumption was tested by running the descriptive statistics and the normal distributions were acceptable when the skewness and kurtosis values were in the range of +/-3 (Hair et.al 1995). Hence, based on the table below, the data was normally distributed since the values fit the range of +/-3 for each items. Table 14 below revealed the normality results of skewness and normality values.

Table 14. Normality Analysis

| Dimension | Items | Normality Analysis | |
|------------------------|--|--------------------|----------|
| | | Skewness | Kurtosis |
| Informational Literacy | The information provided by the advertisement is appropriate. | 0.205 | -3.87 |
| | I seek more information from different perspectives before evaluating the product or services. | 2.65 | 0.40 |
| | I use technology/ the Internet to find more information regarding the product or services. | -3.26 | 1.27 |
| | I need to evaluate the source and information to ensure the credibility of the information provided. | -1.70 | -0.31 |
| | I filter the information and only attend to what is important. | -2.82 | 0.747 |
| | I am aware of the options of information available before making any decision. | -2.86 | 1.06 |
| | I need to discuss the information regarding an advertisement on social media before making any purchasing decisions. | -1.22 | -0.40 |

| | | | |
|-----------------------------|---|--------|--------|
| Visual Literacy | The layout of the advertisement is not professionally executed. | -1.72 | 0.63 |
| | The advertisement was not properly design. | 0.87 | -0.3 |
| | The visuals used is not enough. | 0.04 | 0.73 |
| | The visuals used should be the main highlight to attract potential consumers. | -0.42 | -1.128 |
| | An advertisement is a source of artistic pleasure. | -2.807 | 1.63 |
| | The visuals used should be in colour. | -1.22 | -0.60 |
| | I can critically assess the visual expressions of the advertisements. | 0.28 | -0.56 |
| Rhetorical Literacy | I am aware that different advertisements are targeted to different target audience. | -1.48 | 0.20 |
| | Different form of advertisement (television, print, and online advertisement) implement different persuasive strategy in advertising. | -2.15 | 0.89 |
| | I understand there are different strategies by different advertisers. | -2.88 | 1.88 |
| | Advertisement using logos gives a direct indication of what the company does. | 0.91 | 0.60 |
| Promotional Literacy | In today's information age, I understand that we are all surrounded by converged media. | -3.09 | 1.58 |
| | I understand that the intention of an advertisement is to promote something. | -2.17 | 1.25 |
| | I can position an advertising medium amongst various media. | -2.32 | 1.09 |
| | The technology/internet helps me to communicate with the society of the promotional items advertised by the advertisers. | -0.95 | -1.60 |
| | I know that advertisers use various promotion strategy (discounts, offers, etc.) in grabbing our attention. | -2.65 | 1.88 |
| | I am aware the role of media in contributing towards the economy. | -1.88 | 0.16 |
| | I use technology/Internet to check the competitor's promotional strategy before making any purchasing decision. | -0.53 | -1.37 |
| | I can identify different forms of advertising media and commercial communications (Print media, online Media, etc.) | -2.68 | 2.09 |

CONCLUSION

The objective of this study is to determine the reliability, validity and factor analysis of the dimensions of advertising literacy. Hence, the analysis involved analysing the normality of the data, the reliability of the items in order to measure the consistency of the scale and the validity of the dimensions by using principal axis with varimax rotation. The findings contribute to the understanding of the consistency and validity of the items to measure advertising literacy based on the dimensions of advertising literacy; information literacy, visual literacy, rhetorical literacy and promotional literacy. It is worth noting that all four (4) dimensions have a significant relationship in the realm of advertising literacy. This instrument constructed would be a methodological contribution for scholars to measure advertising literacy in varied advertising contexts. In fact, this would also be beneficial for the advertising industry as they can act a guideline in producing advertising works. It is hoped that this study would contribute to the body of knowledge especially in the advertising and communication field and could serve as a guideline in determining the advertising literacy.

BIODATA

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