Advertising Literacy Measurement Scale from Students' Perspective

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Abstract

Although advertising literacy leads to critical thinking in the face of advertising, but so far, no action has been taken in Iran regarding a tool to measure this type of literacy. And after the investigations, it was determined that although much research has been done on advertising, but the lack of appropriate measurement tools to measure the level of advertising literacy is clearly evident. Therefore, this research provides a valid tool for measuring advertising literacy from students' perspective. In this study, referring to the dimensions of advertising literacy from the perspective of Malmelin (2010) and the views of related professors, a questionnaire was developed and to determine the validity of the structure, confirmatory factor analysis was used. In this study, the statistical population was high school students, considering the impact of advertising in this age range; finally, a tool with four dimensions of informational literacy, aesthetic literacy, rhetorical literacy and promotional literacy was obtained. According to the confirmation of this tool in the present study, it can be used to examine the status of items, their order and prioritization from the perspective of the mentioned population.

Key words: Aesthetic literacy, Informational literacy, Promotional literacy, Rhetorical literacy, Students, Validation.

Introduction

The era we live in today is known as the age of knowledge, and advertising as the new power of the media provides a lot of information as the engine of economic growth (Bughin & Spittaels, 2012). Advertising is an important part of everyday life in today's society. Marketing and advertising messages have increasingly saturated the lives of consumers. To understand and interpret these messages and visual representations, consumers need advertising literacy skills (i.e., the ability to recognize, evaluate and understand advertising and other business messages). The growth of the advertising industry with new jobs and concepts is expanding rapidly, which shows the importance of this industry in today's society (Chuen, Michael, & Teck, 2016). On the other hand, children and adolescents are faced with a media space that is increasingly saturated with advertising (Calvert, 2008). The business world offers important opportunities in terms of entertainment, education, and cultural experiences, but there are also significant concerns about unintended consequences for their health (Rozendaal, Lapierre, Van Reijmersdal, & Buijzen, 2011). In addition, researchers and scientists have long been concerned about the soundness and fairness of the advertisements intended for these individuals (Kunkel et al., 2004).

Thus, children and adolescents are faced not only with traditional media channels, but also with a wide and significant range of advertisements in digital formats such as social media. These important issues raise the question of whether they can critically identify and understand these persuasive efforts; In other words, do children and adolescents have the necessary advertising literacy? (Rozendaal & Figner, 2019; Rozendaal, Opree, & Buijzen, 2016), Therefore, one of the important reasons behind this concern and concept is that advertising literacy (advertising-related skills such as understanding the commercial purpose of advertising) is not yet fully developed (Rozendaal, 2014). As a result, consumers need comprehensive and rich advertising knowledge, which is called advertising literacy, to improve and develop literacy skills in their advertising, which acts as a filter in the processing of messages sent by advertising (Salim & Abdullah, 2017). Therefore, due to the studies conducted and the lack of effective measurement tools, the research team has taken steps to develop and standardize advertising literacy measurement tools in the target community. Therefore, due to the studies conducted and the lack of effective measurement tools, the research team has taken steps to develop and standardize an advertising literacy measurement tool in the target community. It is quite obvious that the concept of advertising literacy requires further analysis and development.

Theoretical Background and Research Questions

Advertising literacy

Advertising literacy increases the ability to understand and choose in a variety of areas, including understanding the shape, style, impact, and mode and production process. With the help of advertising literacy, while asking about the content that is used, it is possible to evaluate the advertisement, production or supply, as well as to react to it intelligently. Such literacy can be used

as a tool for judging based on a rational process about the content of advertising and everything that is done through various media for marketing purposes (Aufderheide, 1993). Individuals advertising literacy means the ability of recognizing, evaluating and understanding of advertising and other business messages. Consumers need advertising literacy to understand and interpret these messages and visual representations (Malmelin, 2010).

Since the late twentieth century, advertising literacy has been the subject of much debate among academic scholars and has been debated and investigated to date, although there have been some studies that have focused on research on advertising literacy and its role in sensitivity to Advertising, but the results in this regard are not clear and transparent and have not reached a consensus on the dimensions of advertising literacy. For example, empirical studies focusing on the development of advertising literacy, with respect to age and people's perceptions, have provided conflicting results of advertising goals (Rozendaal et al., 2011). In addition, survey and experimental studies examining the relationship between advertising literacy and sensitivity to advertising effects have yielded different results. Some studies have shown a negative relationship between understanding the purpose of advertising and the desire for advertised products (Robertson & Rossiter, 1974) and some others have not shown an empirical relationship (Chernin, 2007; Mallinckrodt & Mizerski, 2007; Ross et al., 1984). These contradictory results may lie in the fact that researches have used different conceptual and operational definitions of advertising literacy. Therefore, in order to examine these cases in detail, a uniform definition and appropriate measurement tool for advertising literacy is very important (Rozendaal et al., 2016).

Dimensions of advertising literacy

The basis of the scale and tool used in this research is the multidimensional conceptualization of advertising literacy introduced by Malmelin (2010). Malmelin considers informational literacy, aesthetic literacy, rhetorical literacy, and promotional literacy as indicators of advertising literacy. Informational literacy is the ability to access information through the media and judge its accuracy. Aesthetic literacy is defined as the ability to value art and understanding beauty in performance, design and production, and visual literacy, understanding the concepts of images as one of the most important human skills. Rhetorical literacy is the ability to understand the meanings and different persuasion strategies in advertising and marketing communications. Promotional literacy is a dimension of advertising literacy that helps consumers to evaluate the business forms, functions, and objectivity of the media (Malmelin, 2010). Pashanak et al. (2015) in their research determined the advertising literacy indicators of Iranian visual media managers. Their research findings showed that 10 indicators were the most important indicators affecting the advertising literacy of visual media managers, which include cultural literacy, recognizing the effectiveness of advertising, understanding media economics, rhetorical literacy, understanding media ethics, technical literacy, content production ability, aesthetic literacy, familiarity with media and advertising laws, and informational literacy (Pashank, Tabibi, & Farhangi, 2018). Salim and Abdullah (2017) in their research examined the reliability and validation of the dimensions of advertising literacy to determine the indicators of advertising literacy. The results of exploratory

factor analysis of their research showed 4 factors of informational literacy, aesthetic literacy, rhetorical literacy and promotional literacy as dimensions of advertising literacy. Also, the reliability of advertising literacy dimensions based on Cronbach's alpha coefficient for informational literacy dimension was 0.797, aesthetic literacy was 0.812, rhetorical literacy was 0.721 and promotional literacy was 0.882 (Salim & Abdullah, 2017). In the research of Ghorbani et al. (2017) on the construction and standardization of youth media literacy test, the indicators of confirmatory factor analysis showed desirable values. Their research findings also showed that the MLT-35 test has the necessary validity and reliability to measure youth media literacy (Ghorbani, Niusha, & Shaterian, 2017). Rozendaal et al. (2011) in their study on children's advertising literacy stated that the main conceptualization of advertising literacy primarily requires conceptual knowledge of advertising. They also stressed the need to expand the one-dimensional conceptualization of advertising literacy with two additional dimensions, including attitudinal advertising literacy and advertising literacy performance. Accordingly, they proposed a new three-dimensional concept of advertising literacy, each of which included several components. The first dimension was conceptual advertising literacy (including the ability to recognize and understand advertising messages); the second dimension was attitudinal advertising literacy (including a critical attitude toward advertising) and the third dimension was advertising literacy performance (including the ability to use conceptual advertising knowledge when confronted with advertising) (Rozendaal et al., 2011). Also, Rozendaal (2016) in his research used 39 items to measure the two dimensions of advertising literacy (advertising literacy performance and attitudinal advertising literacy) and identified 9 basic components that include the dimensions of advertising recognition, understanding sales intent, recognition the source of advertising, the perception of the intended audience, the understanding of the persuasive purpose, the understanding of the persuasive tactics, the understanding of the advertising bias, doubts about advertising and the unwillingness to advertising. The results of structural equation modeling also showed that the advertising literacy scale had good validity and reliability in terms of confidence (Rozendaal et al., 2016).

Students and advertising literacy

Today, students must be able to consciously critique and judge the messages and contents of different types of media, and by being equipped with media literacy and using the necessary skills, be able to identify media and information sources. And use them to meet their information needs and also have the ability to understand the validity of advertising messages; therefore, the purpose of this study is to provide a valid tool for measuring students' advertising literacy.

It is obvious that adolescents are one of the most important consumers of media and the media is one of the main factors in their attitude and behavior towards consumption patterns and their daily activities in life. Based on this assumption, Lin (2005) believes that media enjoyment is one of the important factors in attracting consumers that is not clearly defined. He refers to it as the positive reaction of individuals to all that media consumption and individual-collective tendencies evoke (Lin, 2005). However, adolescents will definitely not be far away from the changes that are taking place due to being located in the global village and the inevitable connection with the international

community. In fact, in such an atmosphere full of information and conditions of media saturation in the world, everyone needs to take an umbrella against such an atmosphere and adopt a consumption regime (Mo`ayyedi, 2019); therefore, understanding consumer attitudes about the types and forms of marketing communications is often critical to advertising design. Understanding consumer literacy skills is a key condition for successful communication. Because students have different attitudes toward media and advertising, the way they receive messages is crucial to designing successful communication. For the purposes of advertising design, it is essential to understand how student literacy skills are constructed and developed. As a result, new tools and methods of analysis need to be developed that are the basis for students' ability and desire to understand and interpret advertising messages. With such an increasing exposure to advertising, how do society and students analyze these advertising messages? How do they extract meaning from messages? Why do they need to combine messages? Today, it is important for members of the student community to be able to answer all the questions with media literacy and, in this particular case, have advertising literacy; Therefore, the present study tries to validate the Malmelin (2010) advertising literacy questionnaire from the perspective of students in Iranian society, which has four dimensions of informational literacy, aesthetic literacy, rhetoric literacy, and promotional literacy, and the research questions are as follows:

Do the dimensions of advertising literacy explain the main structure?

Is the advertising literacy questionnaire valid from the audience's perspective?

Method
The aim of this study was to validate the Advertising Literacy Questionnaire from the perspective of the statistical population of the study (High school students of Lorestan province (N = 400). The present study in terms of purpose is applied, in terms of strategy is quantitative, in terms of implementation method is descriptive, which has been done by structural equations method. The number of statistical samples in validation researches should not be less than 200 people (there should be five to ten respondents for each variable) that the questionnaire was distributed among 200 available people. The primary framework of measurement tool in this research is Malmelin advertising literacy questionnaire (2010) and includes 26 items and four components (informational literacy, aesthetic literacy, rhetorical literacy and promotional literacy) with a five-point Likert scale (from never = 1 to forever = 5).

In this study, the reliability of the research tool was measured by three criteria: 1. Cronbach's alpha; 2. Combined reliability (CR); 3. Factors of factor loads and then convergent and divergent validity. Cronbach's alpha is a classic measure of reliability and a good measure of internal Consistency. For variables with a small number of questions, Moss et al. (1998) introduced the value of 0.6 as the limit of Cronbach's alpha coefficient (Moss, Rousseau, Parent, St-Laurent, & Saintonge, 1998). The more modern criterion used to measure reliability is the value of CR, in which the reliability of structures is calculated not absolutely but according to the correlation of their structures with each other, and if the value of CR for each structure is above 0.7, Indicates the appropriate internal

stability for the measurement model. Another criterion used to examine a measurement model is convergent validity, which examines the average variance extracted (AVE) shared between each structure with its own indicators. In other words, it determines the degree of correlation of each structure with its questions, and the higher the correlation, the greater the fit. Hair et al. (2014) considered 0.4 and above to be sufficient for AVE (Hair Jr, Sarstedt, Hopkins, & Kuppelwieser, 2014).

The Fornell and Larcker matrix methods were also used to evaluate the divergent validity of the model. In this method, the degree of correlation of a structure with its indicators is compared with the correlation of that structure with other structures. In the main diameter of this matrix, the root of the AVE of the variables is entered and in order to confirm the divergent validity, this value needs to be more than the correlation between that variable and other variables (Habibi & Adanvar, 2017; Hair Jr et al., 2014).

In this research, descriptive tests were used to calculate the central indicators and draw graphs. In inferential statistics, first and second order confirmatory factor analysis was used to confirm the validity of the structure and Cronbach's alpha coefficient and CR were used for the reliability of the questionnaire with SPSS and AMOS software for data analysis.

Results
In this study, in order to validate the advertising literacy questionnaire from the students' perspective, first and second order confirmatory factor analysis was used. One of the valid scientific methods for measuring the construct validity and validation of research tool is the confirmatory factor analysis method, which estimates the factor load and the relationships between a set of indicators and factors. Factor load represents the correlation of indicators with the relevant factor and is interpreted like any other correlation. In this section, the indicators related to the research variables, which are shown based on the results of factor analysis, are tested. Significance confirmation or rejection of factor loads is done according to the significant numbers of t (t-value). The relationship is confirmed (at the error level of 0.05) if the value of t is greater than (1.96) or less than (-1.96), which will be a significant positive relationship or a significant negative relationship, respectively. Indicators whose statistics are less than the absolute value of 1.96 indicate that the index is weak and are removed from the measurement model. The following are models for measuring research variables, which was done by confirmatory factor analysis. In the study of confirmatory factor analysis and structural equation, especially when the maximum likelihood estimation (MLE) is used, the assumption that the variables are normal is one of the assumptions of the test. In structural equation modeling and confirmatory factor analysis, in order to evaluate the construct validity of the research tool, in addition to univariate normality, multivariate normality should also be examined. For this purpose, the distribution of data normality is done by examining the values of skewness and kurtosis of data (Abdolmaleki, Mirzazadeh, & Ghahfarokhhi, 2018). In the table of skewness and kurtosis, the absolute value of any amount of kurtosis should not be more than three, and the skew value should be between -1 and 1, which indicates the normality of the data. In order to achieve a more accurate factor structure, the second-

order confirmatory factor analysis method was used. The purpose of this method is to achieve a more meaningful method of data. In such models, it is assumed that the latent variables themselves in the common variance are due to one or more higher order factors; In other words, second-order factors are considered factors of first-order factors. This method is used to study the appropriateness of the factor structure of the questionnaire and to confirm the existence of the alleged components of the construct or related research.

Table 1. Confirmatory factor analysis of the first-order of advertising literacy questionnaire

Component	Number	Items	Skewness	Kurtosis	Factor load	T value
Informational literacy	q1	I get the information I need from the media	–0.480	–0.411	0.534	–
	q2	I critique the information obtained from the media	–0.255	–0.697	0.692	8.203
	q3	I know how to get information from the media	–0.355	–0.423	0.744	7.337
	q4	I know how to use different media	–0.524	–0.381	0.660	8.368
	q5	I know how to use different sources of information	–0.394	–0.599	0.783	7.535
	q6	I pay attention to the validity of the information	–0.409	–0.512	0.711	7.160
	q7	I trust the obtained information	–0.255	–0.130	0.376	4.588
	q8	I know different sources of information	–0.135	–0.857	0.705	7.122
	q9	I distinguish between information and advertising	–0.251	–0.949	0.601	6.475
Aesthetic literacy	q10	I look at advertising as a source of fun and artistic entertainment	–0.329	–0.684	0.596	–
	q11	I use the media to meet my personal needs	–0.720	–0.434	0.749	8.417
	q12	I understand the artistic meanings of advertising	–0.600	–0.572	0.717	8.167
	q13	I understand the artistic expression of advertising	–0.312	–0.556	0.703	8.051
	q14	I have the ability to value art and understanding beauty in performance, design and production	–0.586	–0.489	0.732	8.282
	q15	I pay attention to the artistic dimension of advertising	–0.524	–0.339	0.661	7.704
Rhetorical literacy	q16	I believe in the effect of short and hidden messages of product on consumer desire	–0.507	–0.627	0.641	–
	q17	I have the ability to convince the consumer of the product	–0.576	–0.891	0.642	7.968

| Component	Number	Items	Skewness	Kurtosis	Factor load	T value
	q18	I have the ability to understand the meanings and different persuasion strategies in advertising	–0.643	–0.592	0.732	8.867
	q19	I have the ability to identify target people	–0.273	–0.271	0.746	9.003
	q20	I have the ability to critically evaluate the sounds and visuals of target groups	–0.366	–0.570	0.693	8.490
Promotional literacy	q21	I have the ability to evaluate business forms, functions and media objectivity	–0.208	–0.603	0.659	–
	q22	I am familiar with different forms of advertising	–0.358	–0.278	0.627	8.322
	q23	I am familiar with different forms of business communication	–0.430	–0.426	0.618	8.210
	q24	I have the ability to understand the sources of media economics	–0.461	–0.656	0.650	8.594
	q25	I can use media convergence in advertising products	–0.520	–0.416	0.581	7.760
	q26	I know different types of business partnerships in the media industry	–0.428	–0.682	0.603	8.032
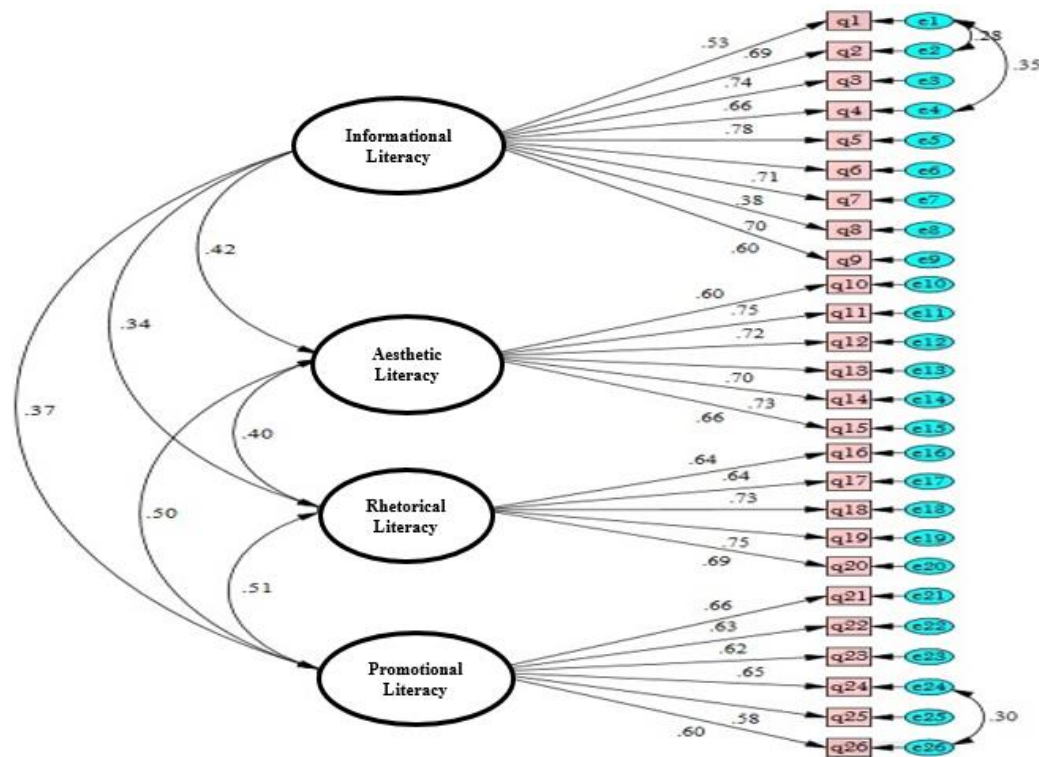
Figure 1. Results of factor analysis of the first order of Advertising Literacy Questionnaire (standardized regression coefficients)

Based on the results of Table 1, regarding the normality of the data distribution, it can be seen that all the skew values related to the research variables (items) are in the range of 1 to -1 and also the values related to the Kurtosis are in the range of 3 to -3. Therefore, according to these values, it can be said that the distribution of items data was normal. The results of factor analysis in Table 2 show that all indicators related to advertising literacy have an acceptable t value and factor load and are suitable indicators for measuring these dimensions (informational literacy, aesthetic literacy, rhetorical literacy, and promotional literacy).

The results of Table 2 of the first-order measurement model of the advertising literacy questionnaire show that all values of goodness of fit index (GFI) and comparative fit index (CFI) as the main fit indices are higher than 0.9, which indicates the desired fit of the model. Also other fit indices (Adjusted Goodness of Fit index (AGFI), normed of fit index (NFI), and incremental of fit index (IFI)) have acceptable values. Finally, based on the root mean square residual values (RMR = 0.039) and the root mean square error of approximation (RMSEA = 0.097), it can be said that the model has sufficient fit. The following coefficients and indices related to CR, Cronbach's alpha and convergent and divergent validity of the research tool are reported.

Table 2. Fit indicators of the advertising literacy questionnaire measurement model (first-order factor analysis)

Fit indicators	Desirable value	Indicators value	Interpretation
Chi-Square ($\chi 2$)	–	838.555	–
Degrees of Freedom (df)	–	290	–
df / $\chi 2$	Less than 3	2.892	desirable
GFI	More than 0.9	0.907	desirable
AGFI	More than 0.8	0.826	desirable
RMSEA	Less than 0.1	0.097	desirable
RMR	Less than 0.05	0.039	desirable
CFI	More than 0.9	0.921	desirable
NFI	More than 0.9	0.903	desirable
IFI	More than 0.9	0.923	desirable

As previously stated, Cronbach's alpha coefficients above 0.7 and CR above 0.7 indicate the acceptable reliability of the measurement model. According to the results of Table 3, Cronbach's alpha values and CR of all variables are higher than 0.7, which indicates the appropriate internal consistency and internal stability of the first-order factor model of the advertising literacy questionnaire. Also, due to the fact that the AVE in all variables is greater than 0.4, the appropriateness of the convergent validity was also confirmed. The Fornell and Larcker matrix were also used to evaluate the divergent validity of the model (Fornell & Larcker, 1981). In the main diameter of this matrix, the root of the AVE of the variables is entered and to confirm the divergent validity, this value needs to be greater than the correlation between that variable and other variables.

Table 3. Evaluation of the reliability coefficients of the four-factor model of advertising literacy through confirmatory factor analysis

advertising literacy components	α	CR	AVE
Informational literacy	0.878	0.868	0.530
Aesthetic literacy	0.842	0.848	0.583
Rhetorical literacy	0.815	0.821	0.579
Promotional literacy	0.806	0.792	0.489

Table 4 of the Fornell and Larcker matrix is used to evaluate the divergent validity of the measurement model of the four-factor advertising literacy questionnaire. As mentioned, the main diameter of this matrix is the AVE ($\sqrt{AVE}$) of advertising literacy. According to the findings of the table and based on the values of the root of AVE ($\sqrt{AVE}$), all dimensions of advertising literacy, as can be seen, are greater than the correlation of each component (structure) with other

components, which indicates appropriate divergent validity and confirmation of the confirmatory factor analysis model.

Table 4. Comparison matrix of the root of AVE and correlation coefficients of variables

components	Informational literacy	Informational literacy	Informational literacy	Informational literacy
Informational literacy	0.728			
Aesthetic literacy	0.425	0.763		
Rhetorical literacy	0.336	0.404	0.761	
Promotional literacy	0.373	0.497	0.506	0.699

In this section, the second-order factor analysis of the advertising literacy questionnaire is examined. Accordingly, in order to confirm the construct validity of the advertising literacy questionnaire and to examine the relationship between the four dimensions of first-time approved advertising literacy and the main factor, second-order confirmatory factor analysis was performed; In other words, at this stage, the correctness of measuring the subscales of the advertising literacy questionnaire is determined. In this section, because the normality of data distribution was reported in first-order factor analysis and confirmed by skew and kurtosis statistics, but factor loads and t values related to items were not presented, only the second-order factor analysis results were reported.

Table 5. The second-order factor analysis of the advertising literacy questionnaire

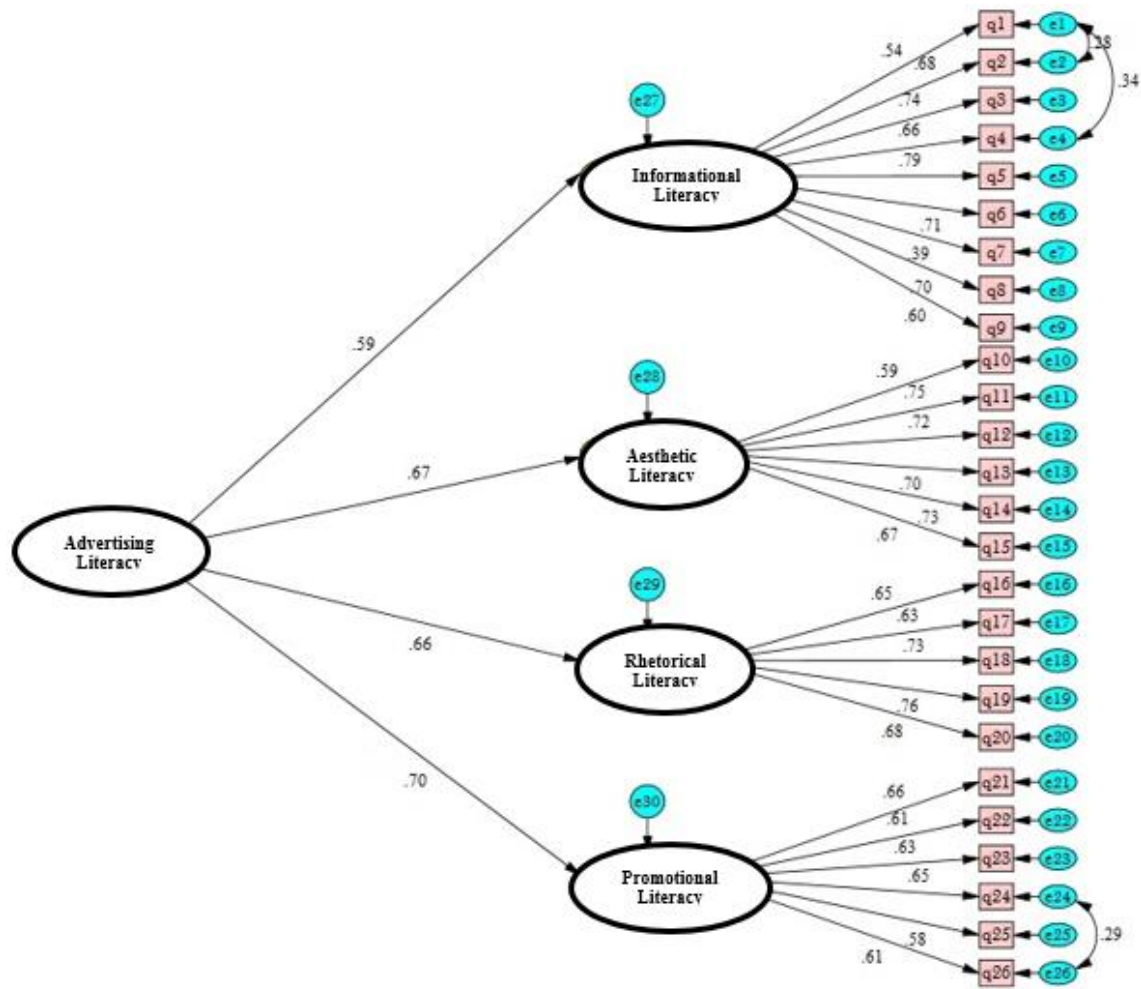| Path			Factor load	T value
Advertising Literacy	→	Informational literacy	0.587	–
Advertising Literacy	→	Aesthetic literacy	0.675	6.203
Advertising Literacy	→	Rhetorical literacy	0.664	6.539
Advertising Literacy	→	Promotional literacy	0.703	6.810

Figure 2. Second-order factor analysis of the advertising literacy questionnaire

The results of table 5 show that the second-order model for measuring the advertising literacy questionnaire is appropriate and all numbers and parameters of the model have acceptable t-values and factor load and are significant at the level of less than 0.05. In general, based on the results of the first and second order factor analysis, it can be said that the advertising literacy questionnaire has acceptable and very good construct validity in the student population.

The values of the fit indicators of the second-order measurement model of the advertising literacy questionnaire, as in the first order, indicate the acceptability and appropriateness of the fit indicators and, consequently, the fit and desirability of the measurement model (Table 6).

Table 6. Fit index of measurement model of the advertising literacy questionnaire (second-order factor analysis)

Fit indicators	Desirable value	Indicators values	Interpretation
$\chi 2$	–	860.871	–
df	–	292	–
df / $\chi 2$	Less than 3	2.948	desirable
GFI	More than 0.9	0.907	desirable
AGFI	More than 0.8	0.822	desirable
RMSEA	Less than 0.1	0.096	desirable
RMR	Less than 0.05	0.035	desirable
CFI	More than 0.9	0.925	desirable
NFI	More than 0.9	0.903	desirable
IFI	More than 0.9	0.927	desirable

Discussion and Managerial Implications

The present study was conducted to validate the advertising literacy questionnaire from the students' perspective using confirmatory factor analysis. Such a measurement tool is needed to examine the general development of advertising literacy in students and the role of advertising literacy in their sensitivity to advertising. Researchers can use this tool to systematically examine the relationship between advertising literacy and their attitudes and sensitivity to advertising effects. It has been argued that advertising literacy can be successful in reducing the sensitivity of advertising when it comes to using this literacy.

Based on the research findings, the results of confirmatory factor analysis showed that the model of advertising literacy questionnaire has a good fit and appropriateness. The results of factor analysis showed that all indicators related to advertising literacy have an acceptable value of t value and factor load and are suitable indicators for measuring dimensions (informational literacy, aesthetic literacy, rhetorical literacy, promotional literacy). Also, all values of the indicators indicate the desirable fit of the model. Therefore, it can be said that the measurement model of students' advertising literacy questionnaire has a good fit and validity of the structure. The results were consistent with the findings of Malmelin (2010) and Salim and Abdullah (2017) who in their research based on factor analysis showed that the dimensions of advertising literacy included four dimensions of informational literacy, aesthetic literacy, rhetorical literacy, and promotional literacy. It is also consistent with the findings of Pashanak et al. (2015) which showed that among the ten indicators of advertising literacy, the dimensions of rhetorical literacy, aesthetic literacy and informational literacy were also identified as indicators. Rozendaal (2016) also showed that according to the structural equation model, advertising literacy has good validity and reliability. Salim and Abdullah (2017) also showed that the indicators of advertising literacy questionnaire have a desirable level. Ghorbani et al. (2017) also stated that the indicators of confirmatory factor analysis show desirable values of the media literacy questionnaire. Also, in order to achieve a more accurate factor structure, the second-order confirmatory factor analysis method was used. The values of the second-order fit indicators of the advertising literacy measurement model, as well as

the first-order, indicate the acceptability of the fit indicators and, as a result, the appropriate and desirable fit and accuracy of the measurement model.

Based on the results, promotional literacy was identified as the most important dimension of advertising literacy. Promotional literacy is part of the practical and personal ability of individuals to understand business messages and media phenomena. In today's media, the consumer is the target of advertising everything. Wernick (1991) believes that media content should be understood as "propaganda" (Wernick, 1991). Advertising literacy is a dimension of advertising literacy that helps students evaluate and examine the business forms, functions, and objectivity of the media; Advertising literacy therefore includes the skill of observation and cognition, which is one of the most important skills, because products, brands and marks in all media - not just in advertising but also in movies, TV shows, news, magazines and books- are embedded. Advertising literacy among students also enables them to understand the resources of media economics, media convergence and interaction with media owners, as well as understanding the different types of business partnerships and partnerships in the media industry as an integral part of advertising literacy. Also, in explaining the results of aesthetic literacy, it can be said that the scope of media literacy not only includes media literacy, but also goes beyond it and includes human interactions and non-verbal communication in its framework. Aesthetic literacy includes the ability to value art and artistic expression in advertising (Pashank et al., 2018). Aesthetic literacy skills help to better encode the message when creating the space and personality of students, and on the other hand, increase the effectiveness of advertising by facilitating decoding by the audience. Students' aesthetic literacy can also provide a system of messages and general visual experiences that everyone can share in its meaning and understanding and be able to understand messages and visual phenomena at a high level. Knowing the visual elements, how they affect the audience and, of course, identifying the factors that affect a person's perception, will lead to effective and successful communication. In terms of social and cultural developments, as well as global communication and the presence of countless and diverse media, the subject of aesthetic literacy is constantly evolving and changing, and recognizing this change and applying specific visual features of time and place in communication and sending message are necessary and important (Jafarzadeh, 2014). As a result, advertisements for students should be tailored to the visual components of art and their age, and with proper training, their level of advertising literacy should be improved. Also, in explaining the results of informational literacy, it can be stated that students with informational literacy can use different types of media, informational sources and channels in their private, courses, educational and public life. They can analyze and evaluate information, messages, beliefs and values that are quoted in the media and any other content producer. Therefore, in order to increase the level of students' informational literacy, planning for teaching informational literacy to them is necessary. In his research, Wilson (2012) considered the necessity of media literacy and informational literacy for individuals (Wilson, 2012).

Conclusion

In explaining rhetorical literacy, it can be mentioned that rhetorical literacy is the awareness of the target person in specific advertising, the ability to critically evaluate the sounds and visual expressions of the target groups. Therefore, it is necessary for students to know persuasion techniques because it is one of the most important topics related to media and communication. Therefore, as the results showed, the advertising literacy questionnaire has acceptable values in the four indicators obtained; As a result, it is necessary for those in charge of advertising and marketing to pay attention to this issue in the age category of students. The results of the present study showed that in addition to the usefulness of advertising literacy for officials and managers, this questionnaire can be used as a basic framework of a suitable tool to validate advertising literacy in other communities; therefore, this questionnaire covers the main factors of advertising literacy.

Limitations and future research

Like any other study, we had limitations in this study. First, this research has been conducted only in the population of high school students and this tool only applicable in this population. It is suggested that similar research be done in other courses and compare the results with the present study.

Second, it is clear that various factors affect the level of advertising literacy of students; As a result, it is suggested that other studies identify other factors affecting students' advertising literacy. The research also showed that the advertising literacy questionnaire works well for students in terms of reliability and empirical validity. In future research, the validity and reliability of the advertising literacy questionnaire for other age groups can also be determined. Finally, for gaining insight and understanding of general growth of advertising literacy throughout life, the focus can be on children and adults.

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