

## Investigating the effect of advertisement on consumer behavior

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### CHRONICLE

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### ABSTRACT

During the past few years, there has been tremendous increase in advertisement expenses all over the world. Therefore, it is important to examine, to investigate and to evaluate the performance of advertisement to reach organizations' objectives. This paper presents an empirical investigation using highly reliable and efficient method called AIDA, which consists of four factors: attention, interest, desire and action. The study is implemented for one of Iranian food suppliers called TABAROK located in city of Mashad, Iran. The survey selects a sample of 300 regular customers and distributes a standard questionnaire among them. Cronbach alpha has been calculated as 0.93, which is well above the minimum desirable level. Using Spearman correlation test, the study confirms that all four components of the survey influences consumer behavior, positively. The study also indicates that there were some positive and meaningful correlations among various components of the survey. In addition, applying Freedman test indicates that advertisement has the highest impact on convincing consumer to purchase product.

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## 1. Introduction

During the past few years, there has been tremendous increase in advertisement expenses all over the world. Therefore, it is important to examine, to investigate and to evaluate the performance of advertisement to rich organizations' objectives (Lin & Huang, 2006; Antonides & Van Raaij, 1998). Attention, interest, desire and action are components of one of the most popular models called AIDA (Howard & Sheth, 1969). The method has been extensively used in various contexts within the past few decades. Petit et al. (2011) proposed a new, innovative and marketable IP diagnosis to evaluate, to qualify and to give insights for the development of SMEs IP practices and use, based on the AIDA approach. Vag (2007) proposed some notions of social network analysis, consumer behavior modeling, and word-of-mouth marketing with an integration of AIDA model.

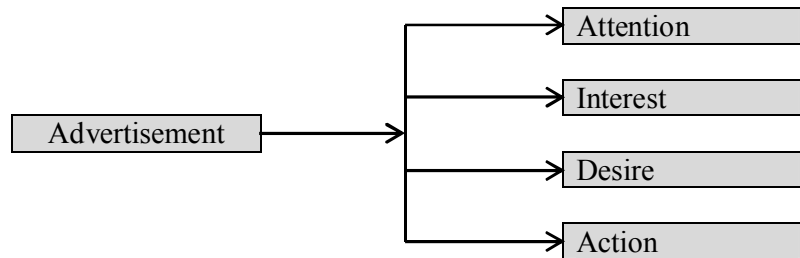
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Machleit et al. (1993) proposed that for mature brands, ad-evoked affect would not have a strong impact on brand attitude and they formulated brand interest, a new construct, as a more relevant consequence of ad-evoked influence. They presented empirical evidence to support their theory regarding the consequences of ad-evoked influence for mature brands. Verbeke (2000) investigated the effects on the consumer decision-making process towards fresh meat industry in Belgium and implications using AIDA model. Reed and Ewing (2004) proposed seven new techniques, which recognize various purchase situations and varying attitude formation processes. In their model, there were four high involvement models, two variants of a medium-to-lower involvement model, and two low involvement models. Each model provided for both first-time and repeat-purchase situations and all components were developed with the intention of providing advertisers with frameworks to develop integrated marketing communication strategies.

According to Pachauri (2001) to study consumer behavior, it is essential to start by looking into the evolution of the field of consumer research and the various paradigms of thought, which have affected the discipline. She defined a set of dimensions applied to characterize and to differentiate different perspectives on consumer research. Consumer behavior itself emerged as a field of investigation during the 1960s; and has been characterized by two broad paradigms, the positivist and the non-positivist. The positivist paradigm includes the economic, behavioral, cognitive as well as situational perspectives where these perspectives could be referred to as traditional perspectives. On the other hand, the positivist paradigm concentrates on the supremacy of human reason. The author compared these two paradigms in more depth and provided some insight on consumer behavior.

## 2. The proposed model

This paper presents an empirical investigation based on AIDA model, which consists of four factors: attention, interest, desire and action. Fig. 1 shows details of the proposed study of this paper.



**Fig. 1.** The proposed AIDA model

As we can observe from Fig. 1, there are four hypotheses associated with the proposed study of this paper as follows,

1. There is a meaningful relationship between the effect of advertisement and consumer attention.
2. There is a meaningful relationship between the effect of advertisement and consumer interest.
3. There is a meaningful relationship between the effect of advertisement and consumer desire.
4. There is a meaningful relationship between the effect of advertisement and consumer action.

The study is implemented on one of Iranian food suppliers called Tabarok located in city of Mashad, Iran. The sample size is calculated as follows,

$$N = Z_{\alpha/2}^2 \frac{p \times q}{e^2}, \quad (1)$$

where  $N$  is the sample size,  $p=1-q$  represents the probability,  $z_{\alpha/2}$  is the CDF of normal distribution and finally  $\varepsilon$  is the error term. For our study we assume  $p=0.5$ ,  $z_{\alpha/2}=1.96$  and  $e=0.05$ , the number of sample size is calculated as  $N=298$ . The survey selects a sample of 300 regular customers and distributes a standard questionnaire among them. Cronbach alpha has been calculated as 0.93, which is well above the minimum desirable level. All questions of the survey have been designed in Likert scale. Next, we present details of our findings on testing various hypotheses of the survey.

### 3. The results

In this section, we present details of our findings on testing four main hypotheses of the survey using Spearman correlation ratios. Table 1 demonstrates the results of our survey,

**Table 1**

The summary of testing the main hypotheses of the survey using Spearman correlation

|           | Mean   | Value | Error | Sig.  | Lower  | Upper   | Result |
|-----------|--------|-------|-------|-------|--------|---------|--------|
| Attention | 3.3253 | 4.063 | 0.05  | 0.000 | 0.1327 | 0.68821 | √      |
| Interest  | 3.1876 | 2.342 | 0.05  | 0.01  | 0.0361 | 0.3116  | √      |
| Desire    | 3.3319 | 4.321 | 0.05  | 0.000 | 0.1534 | 0.4544  | √      |
| Action    | 3.3165 | 4.049 | 0.05  | 0.000 | 0.1464 | 0.4381  | √      |

As we can observe from the results of Table 1, all four hypotheses of the survey have been confirmed when the level of significance is one percent. We have also examined the relationship among different four factors of attention, interest, desire and action using Spearman correlation ratio. Table 2 summarizes the results of our survey.

**Table 2**

The summary of Spearman correlation ratio

| Factor    | Correlation | Attention | Interest | Desire | Action |
|-----------|-------------|-----------|----------|--------|--------|
| Attention | Spearman    | 0.973     | 0.995    | 0.986  | 0.995  |
|           | Sig.        | 0.000     | 0.000    | 0.000  | 0.000  |
|           | Size        | 298       | 298      | 298    | 298    |
| Interest  | Spearman    | 0.995     | 1.000    | 0.987  | 0.954  |
|           | Sig.        | 0.000     | 0.000    | 0.000  | 0.000  |
|           | Size        | 295       | 298      | 298    | 298    |
| Desire    | Spearman    | 0.986     | 0.997    | 1.000  | 0.979  |
|           | Sig.        | 0.000     | 0.000    | 0.000  | 0.000  |
|           | Size        | 298       | 298      | 298    | 298    |
| Action    | Spearman    | 0.995     | 0.993    | 0.996  | 1.000  |
|           | Sig.        | 0.000     | 0.000    | 0.000  | 0.000  |
|           | Size        | 298       | 298      | 298    | 298    |

The results of Table 2 clearly show that there are some positive and meaningful correlations among different components of the survey. In addition, the highest correlation ratio is between attention and action (0.995, Sig. = 0.000) and the second highest ratio is between attention and desire (0.986, Sig. = 0.000). Now we consider the effects of various components associated with each main factor. The ranking is performed using Freedman test.

#### 3.1. The results of Freedman for attention

In our survey, there are 12 components associated with the first factor, attention and Table 3 demonstrates the results of our ranking.

**Table 3**

The results of Freedman test for factors associated with attention

| Item | Variable                      | Mean rank | Standard deviation | Mean  | Rank |
|------|-------------------------------|-----------|--------------------|-------|------|
| 1    | TV attraction                 | 8.86      | 1.03281            | 3.74  | 1    |
| 2    | Billboard advertisement       | 8.83      | 1.12472            | 3.735 | 2    |
| 3    | Billboard's attraction        | 8.38      | 1.053276           | 3.654 | 3    |
| 4    | Frequency of advertisement    | 7.82      | 1.24042            | 3.55  | 4    |
| 5    | Introducing by TV             | 2.27      | 1.32419            | 3.45  | 5    |
| 6    | Introducing by Subway ad.     | 7.17      | 1.03089            | 3.435 | 6    |
| 7    | Magazine's attraction         | 7.11      | 1.14478            | 3.425 | 7    |
| 8    | Subway's attraction           | 6.16      | 1.08373            | 3.26  | 8    |
| 9    | Introducing by daily papers   | 6.14      | 1.26509            | 3.25  | 9    |
| 10   | Introducing by daily magazine | 3.92      | 1.04788            | 2.875 | 10   |
| 11   | Papers' attraction            | 3.66      | 1.25788            | 2.77  | 11   |
| 12   | Creating the need             | 2.57      | 1.19162            | 2.515 | 12   |

Chi-Square = 561.1473 P-value = 0.000

As we can observe from the results of Table 3, TV attraction plays the most important role on getting consumers' attention followed by Billboard advertisement. In our survey, daily magazine as well as daily papers do not play an important role on attracting consumers.

### 3.2. The results of Freedman for interest

In our survey, there are 6 components associated with the second factor, attention and Table 4 presents the results of our ranking.

**Table 4**

The results of Freedman test for factors associated with interest

| Item | Variable                            | Mean rank | Standard deviation | Mean  | Rank |
|------|-------------------------------------|-----------|--------------------|-------|------|
| 1    | Consistent with consumers' interest | 4.94      | 0.96948            | 3.804 | 1    |
| 2    | Interest in purchase                | 4.03      | 0.82634            | 3.415 | 2    |
| 3    | Being understandable                | 3.93      | 1.13615            | 3.375 | 3    |
| 4    | Being believable                    | 3.80      | 1.27132            | 3.36  | 4    |
| 5    | Consistent with lifestyle           | 3.81      | 1.1248             | 2.95  | 5    |
| 6    | Reminding good memories             | 1.35      | 1.09257            | 2.11  | 6    |

Chi-Square = 646.761 P-value = 0.000

As we can observe from the results of Table 4, consistency with consumers' interest plays the most important role on attracting consumers' interest followed by interest in purchase.

### 3.3. The results of Freedman for desire

In our survey, there are 6 components associated with the third factor, attention and Table 5 presents the results of our ranking.

**Table 5**

The results of Freedman test for factors associated with desire

| Item | Variable                                       | Mean rank | Standard deviation | Mean  | Rank |
|------|--|-----------|--------------------|-------|------|
| 1    | Research on competitors                        | 5.28      | 0.93414            | 4.06  | 1    |
| 2    | Quality of products                            | 4.76      | 0.96417            | 3.835 | 2    |
| 3    | Competition                                    | 3.60      | 1.10271            | 3.36  | 3    |
| 4    | Having complete information on products        | 3.04      | 1.25347            | 3.12  | 4    |
| 5    | Investigating about other products             | 2.85      | 1.01141            | 3.09  | 5    |
| 6    | Being informed about products' characteristics | 1.43      | 1.1136             | 3.345 | 6    |

Chi-Square = 723.714 P-value = 0.000

The results of Table 5 indicate that research on competitors plays essential role on gaining more desire followed by quality of product.

### 3.4. The results of Freedman for action

In our survey, there are 6 components associated with the last factor, action and Table 6 presents the results of our ranking.

**Table 6**

The results of Freedman test for factors associated with action

| Item | Variable   | Mean rank | Standard deviation | Mean  | Rank |
|------|--|-----------|--------------------|-------|------|
| 1    | Convincing to purchase                             | 6.76      | 1.23835            | 3.84  | 1    |
| 2    | Persuading about good product characteristics      | 6.3       | 1.02438            | 3.6   | 2    |
| 3    | Placing tomato in consumer's purchasing basket     | 6.27      | 1.24218            | 3.6   | 3    |
| 4    | Placing tea in consumer's purchasing basket        | 5.89      | 1.14813            | 3.604 | 4    |
| 5    | Awareness about products' advantages               | 5.16      | 1.1759             | 3.41  | 5    |
| 6    | Repurchase intention                               | 4.73      | 1.001187           | 3.305 | 6    |
| 7    | Placing rice in consumer's purchasing basket       | 4.12      | 1.0158             | 3.104 | 7    |
| 8    | Placing mayonnaise in consumer's purchasing basket | 3.76      | 1.04128            | 3.07  | 8    |
| 9    | Searching for product                              | 1.34      | 1.05841            | 3.014 | 9    |

Chi-Square = 915.776 P-value = 0.000

The results of Table 6 specify that convincing the consumer to purchase the product is the most important factor for purchasing products followed by persuading about good product characteristics.

## 4. Discussion and conclusion

In this paper, we have presented an empirical investigation to study the effects of advertisement on consumer behavior in one of Iranian food producers. The proposed study of this paper has implemented AIDA model and it has verified the positive impact of four factors of attention, interest, desire and action on consumer's behavior using Spearman correlation ratio. In addition, there were some positive and meaningful correlations among these four components. In our survey, the highest correlation ratio was between attention and action (0.995, Sig. = 0.000) and the second highest ratio was between attention and desire (0.986, Sig. = 0.000). In terms of attention, TV attraction played the most important role on getting consumers' attention followed by Billboard advertisement. In terms of interest, consistency with consumers' interest plays the most important role on attracting consumers' interest followed by interest in purchase. In terms of desire, the results of our survey have indicated that research on competitors played essential role on gaining more desire followed by quality of product. Finally, in terms of action, convincing the consumer to purchase the product was the most important factor for purchasing products followed by persuading about good product characteristics.

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