

## Investigating effective factors on multimedia advertising: A case study of travel agencies

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### ABSTRACT

Advertisement plays an important role on increasing sales and organizations normally spend significant amount of cost in an attempt to increase profitability. A productive advertisement normally involves various factors and we need to determine the most important ones, very carefully. In this paper, we use a questionnaire-based survey to find the most important factors influencing advertisement. In this paper, we focus on gathering information from the advertisement providers to assess each advertisement plan. The proposed study of this paper uses factor analysis to determine 15 most important factors, which include 42 variables.

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## 1. Introduction

The new millennium promises us new and exciting technologies, which help business industries, provide their products and services through different advertisement channels. Chuang and Chong (2004) explained that a good advertisement must choose appropriate perspectives in terms of color, dimension and the content to affect end line customers, profoundly. Hawkins (2007) named two factors of color and motion as the most important factors influencing customer's attraction. He believed that bright colors and moving objects have more influencing in people's mind and they keep a good memory in their mind for a longer time. Typically web advertisers use two methods to measure the cost effectiveness of their web advertising: advIEWS and clickthroughs (Harvey, 1997). There are other important factors influencing customer attraction such as age. Older people better like and recall emotional than rational appeals, whereas younger adults better like and recall rational than emotional appeals together (McKay-Nesbitt et al., 2011). This suggests that, under low-involvement conditions, emotionally-framed appeals tend to be more effective than rationally-framed ones, especially for

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older than younger adults. The amount of time an advertisement attracts people is another important factors.

Hawkins (2007) explained that the longer an advertisement stays on people's mind, the longer they forget about the advertisement. Wu (2001) explained that one necessary condition for being a caring advertiser is to consider the cultural peculiarities of the foreign markets they are targeting. In other words, we need to learn more about the target market's culture and establish empathy with their experiences and beliefs. Adaptation of advertising prepared for their home-markets just by translating the verbal appeals into the languages of their host markets will most likely fail (Shavitt et al., 1993). Another necessary condition of efficient advertisement is to use pre-testing of visual and verbal contents of advertising prepared for foreign markets. Personal involvement is another important factor in advertisement. Wang (2009) explained that the effectiveness of cross-channel integration of advertising depends on consumers' levels of personal involvement. Education is another factor, which plays an important role in some events. Sirvastava (2010) explained that a highly educated person more likely to buy a product when he/she is logically justified about a product or service's characteristics. In other words, when consumers believe advertising is trustworthy and credible, they are more likely to accept the advertised product's claims and are more likely to change their attitudes and buying behavior.

The strong correlation between physical attractiveness and purchase intention support the belief that it is effective to sell a product using physically attractive models or product endorsers. The results also indicate that participants are more receptive towards complementary pictorial and verbal content featured in advertisements for purchase intention (Phau & Lum, 2000). Codaccioni and Tafani (2011) studied the effect of the frequency of advertisement on increasing sales. They performed different experiments where the first experiment demonstrated that an advertisement's numerical support impacts its efficiency. Their study highlighted the fact that minority support for commercial advertisements can guarantee relatively greater efficiency, which translates here as latent influence, on the basis of which targets begin to elaborate upon source opinions, enhancing the attributes of the promoted product and improving attitudes towards it. James and Kover (1992), Mehta (2000) and Wang (2009) also investigated whether overall attitudes toward advertising affect involvement with specific advertisements or not.

Chowdhury et al. (2011) investigated the number of advertisements for effectively penetrating to the market. They showed that for advertisement with univalenced images, advertisers should select one image that has the requisite affective valence and intensity and provides a clear example of the benefit being advertised. When advertisements use oppositely valenced images a higher number of positive or negative pictures can generate greater affective response. Jeon and Beatty (2002) studied comparative advertising effectiveness in different national cultures. Liu et al. (2009) addressed consumer responses to sex appeal advertising for a cross-cultural study. They examined the effect of sex appeal on ad and brand evaluation among Australian, Chinese and US consumers and found that Australian, Chinese and US consumers had significantly different attitudes when exposed to the same advertisement but consumer buying intentions towards the advertised brand were not substantially different.

Patsioura et al. (2009) presented an effectiveness conceptual framework for the assessment of the overall performance of corporate advertising web sites towards the multiple advertising, promotional and relationship marketing objectives of their establishment. They examined communication, feedback and customer support policies to identify their contribution in creating or influencing advertising "effects". Their Findings disclosed the significant dimensions of the participants' behavior based on their actions, activities, preferences and intentions. Phau and Teah (2009) examined young consumers' motives for using short message service (SMS), their SMS usage frequency, and their attitudes towards SMS advertising. They used Factor analysis on the motives for using SMS, discovered seven factors, and showed that convenience and economical reasons influence SMS usage

frequency. Lee-Wingate and Xie, (2010) investigated consumer perceptions of product-claim versus help-seeking direct-to-consumer advertising (DTCA) and reported that consumers perceived help-seeking DTCA as being highly informative without persuasive intent, whereas they perceived product-claim DTCA as having high-persuasive intent with little informativeness.

During the past few years, internet advertisement has played an important role on selling products and services through digital world (Brett, 2002). Baltas (2003) performed an empirical study to find important factors in this type of business.

The organization of this paper first presents the details of our proposed study in section 2 and the results are discussed in section 3. Finally, conclusion remarks are given in the last to summarize the contribution of this paper.

## 2. The proposed study

The proposed study of this paper designs a questionnaire for travel agencies located in Tehran/Iran, which consists of 57 questions based on Likert scale. We have chosen three questionnaire for every question and the number of sample size is calculated as  $n=171$ . We have distributed 178 questionnaires among the population of our survey, which are different travel agencies. We use Factor analysis to study the behavior of the data (Brace et al., 2006) and the Cronbach alpha (1951) was calculated as 70%. Since Factor analysis is very sensitive against skewness ratio we decided to remove questions 9-14, 19, 23, 40, 45 and 47-51. Then we have determined 15 factors including 42 variables. Each factor consists of 2, 3 or 4 variables. Next, we explain each factor and its variables in details.

## 3. Details of Factor analysis

### 3.1. The concept of naming

This concept consists of four variables of convincing concept, concept, content and perception. Table 1 shows the details of our analysis where Cronbach alpha (1951) is 71%.

**Table 1**

Factor analysis for concept of advertisement

Option	Factor weight	Eigen value	% of variance	Accumulated
Convincible concept	0.807			
Concept	0.769	4.446	10.585	10.585
Content	0.756			
Perception	0.371			

### 3.2. Theological concepts

The second factor is theological concepts, which consists of three variables of pretest theological concepts, pretest visual concepts and theological concepts. Table 2 demonstrates the details of our analysis where Cronbach alpha (1951) is 73%.

**Table 2**

Factor analysis for theological concepts of advertisement

Option	Factor weight	Eigen value	% of variance	Accumulated
Pretest theological concepts	0.856			
Pretest visual concepts	0.842	2.448	5.829	16.413
Theological concepts	0.610			

### 3.3. Presence on website

The third factor is called presence on website, which consists of two variables of activity and time on website. Table 3 demonstrates the details of our analysis where Cronbach alpha (1951) is 81%.

**Table 3**

Factor analysis for presence on website of advertisement

Option	Factor weight	Eigen value	% of variance	Accumulated
Presence on website	0.838			
Activity on website	0.827	2.367	5.637	22.050

### 3.4. Persuasions

The fourth factor is called persuasions, which consists of two variables of advertisement persuasions and animation. Table 4 shows the details of our analysis where Cronbach alpha (1951) is 60%.

**Table 4**

Factor analysis for presence on website of advertisement

Option	Factor weight	Eigen value	% of variance	Accumulated
Presence on website	0.757			
Activity on website	0.725	2.277	5.422	27.472

### 3.5. Social factor

The fifth factor is social factor, which consists of four variables of religion, education, user friendly and logo. Table 5 shows the details of our analysis where Cronbach alpha (1951) is 57%.

**Table 5**

Factor analysis for social factors of advertisement

Option	Factor weight	Eigen value	% of variance	Accumulated
Religion	0.791			
Education	0.739	1.972	4.695	32.168
User friendly	0.404			
Logo	0.359			

### 3.6. Attractiveness factor

The sixth factor is attractiveness, which consists of three variables of physical, attractiveness and sexual attractiveness. Table 6 shows the details of our analysis where Cronbach alpha (1951) is 58%.

**Table 6**

Factor analysis for attractiveness factors of advertisement

Option	Factor weight	Eigen value	% of variance	Accumulated
Physical attractiveness	0.773			
Attractiveness	0.741	1.891	4.501	36.669
Sexual attractiveness	0.528			

### 3.7. *Contacts people factor*

The seventh factor is contacts people, which consists of three variables of compatibility of advertisement, Conflicts / expectations and Usability. Table 7 shows the details of our analysis where Cronbach alpha (1951) is 58%.

**Table 7**

Factor analysis for contact people factors of advertisement

Option	Factor weight	Eigen value	% of variance	Accumulated
Compatibility of advertisement	0.753			
Conflicts / expectations	0.681	1.719	4.094	40.763
Usability	0.447			

### 3.8. *Coding factor*

The eighth factor is coding, which consists of two variables of coding and typical advertisement. Table 8 shows the details of our analysis where Cronbach alpha (1951) is 61%.

**Table 8**

Factor analysis for coding factors of advertisement

Option	Factor weight	Eigen value	% of variance	Accumulated
Coding message	0.781			
Typical message	0.746	1.653	3.935	44.698

### 3.9. *Technical attributes factor*

The ninth factor is technical attributes, which consists of four variables of banner size, text length, acknowledgment and number of clicks. Table 9 shows the details of our analysis where Cronbach alpha (1951) is 41%.

**Table 9**

Factor analysis for technical attributes factors of advertisement

Option	Factor weight	Eigen value	% of variance	Accumulated
Banner size	0.631			
Text length	0.609	1.465	3.489	48.187
Acknowledgment	0.435			
Number of clicks	0.380			

### 3.10. *Depth of advertisement factor*

The tenth factor is depth of advertisement, which consists of three variables of customer, comparative advertisement and effectiveness. Table 10 shows the details of our analysis where Cronbach alpha (1951) is 48%.

**Table 10**

Factor analysis for depth of advertisement factors of advertisement

Option	Factor weight	Eigen value	% of variance	Accumulated
Customer	0.721			
Comparative advertisement	0.603	1.417	3.373	51.560
Effectiveness	0.513			

### 3.11. Technical attractiveness of advertisement factor

The eleventh factor is technical attractiveness of advertisement, which consists of three variables of number of frames, logical attractiveness and emotional attractiveness. Table 11 shows the details of our analysis where Cronbach alpha (1951) is 57%.

**Table 11**

Factor analysis for technical attractiveness of advertisement

Option	Factor weight	Eigen value	% of variance	Accumulated
Number of frames	0.698			
Logical attractiveness	0.675	1.334	3.176	54.736
Emotional attractiveness	0.526			

### 3.12. Text format of advertisement factor

The twelfth factor is technical attractiveness of advertisement, which consists of three variables of number of text, organization of message and complexity of text. Table 12 shows the details of our analysis where Cronbach alpha (1951) is 96%.

**Table 12**

Factor analysis for technical attractiveness of advertisement

Option	Factor weight	Eigen value	% of variance	Accumulated
Number of frames	0.757			
Logical attractiveness	0.578	1.273	3.032	57.765
Emotional attractiveness	-0.426			

### 3.13. Strategy of advertisement factor

This factor is strategy of advertisement, which consists of two variables of entertainment and persuasive strategies. Table 13 shows the details of our analysis where Cronbach alpha (1951) is 52%.

**Table 13**

Factor analysis for technical attractiveness of advertisement

Option	Factor weight	Eigen value	% of variance	Accumulated
Entertainment strategy	0.653			

Persuasive strategy	0.432	1.222	2.909	60.677
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### 3.14. Distinguish factor

Distinguish factor consists of two variables of distinguished and change of picture. Table 14 shows the details of our analysis where Cronbach alpha (1951) is 34%.

**Table 14**

Factor analysis for distinguished factor

Option	Factor weight	Eigen value	% of variance	Accumulated
Distinguished	0.814			
Change of picture.	0.473	1.084	2.581	63.258

### 3.15. Effective factor

Effective factor consists of two variables of volume of information and entertainment. Table 15 shows the details of our analysis where Cronbach alpha (1951) is 44%.

**Table 15**

Factor analysis for effective factor

Option	Factor weight	Eigen value	% of variance	Accumulated
Distinguished	-0.699			
Change of picture.	0.533	1.040	2.477	65.735

In summary, we can conclude that there are 15 factors influencing a multimedia advertisement. Each factor consists of different components, which are between two to four and the relative importance of each factor is demonstrated, separately.

## 4. Conclusion

In this paper, we have presented a Factor analysis to investigate various important factors involved in multimedia advertisement. The proposed study of this paper selected travel agencies who worked in capital city of Iran, Tehran. A questionnaire was designed and distributed among them and the gathered information were first analyzed and the unsuitable questions were removed and the remaining questions were analyzed using Factor analysis. We hope the results of this study could be used for better promoting travel agencies for other real-world case studies.

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