Choosing An Appropriate Form For Internet Advertising In The Air Transport Service Sector Using An Applied Model:
Case Study of Iran Air Company (Homa)

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ABSTRACT

In recent years, with prevailing information paradigm within economics and influence of internet, internet advertising has largely developed, and transformed to a vital part within the world of economy, and its methods day by day went over measure. This study aims to choose an appropriate form for Internet Advertising in the Air Transport Service sector using an applied model, a case study of Iran Air Company (Homa). For this, an applied model using models including Rodgers and Thorson's Interactive Advertising model, Petty and Cacioppo's Elaboration Likelihood model, Vaughn's planning model, and Structural Equation of Ko et al.; and four types of internet advertising including display advertising, rich media, emails advertising, and video advertising have been all investigated. This study is an applied research in terms of aim, and a descriptive survey in terms of data collection. Followed by applying exploratory data analysis based on one-sample test, skyscraper internet advertising was obtained as the most favorable internet advertising within air transport services.

KEYWORDS: Internet Advertising; applied model; air transport services, skyscraper internet advertising.

1.   INTRODUCTION

Promotion is one of *elements* of *marketing mix* which includes a series of heterogeneous activities aiming at setting relation with consumers. The reason for the relationship between organizations and their markets is totally different, yet all organizations in having relationship with markets mainly aim to be informed of new products and services existing in organization. Communication activities within organizations are information that is being sharing between organization and consumers to improve customer relationships. According to *IAB*'s *Internet Advertising Revenue Report 2007,* revenue from internet advertising by 2007 has reached by 21.2 billion dollars. Furthermore, *the trend going on because of the growth of costs spent for internet advertising throughout the world has reached to 37910 billion dollars by 2008 and internet advertising prioritized over radio as the high-ranked rival (*Zenith-media.co.uk)*. this study investigates that Homa company (Airline of the Islamic Republic of Iran) acts poorly in the context of advertisements on the whole especially internet advertising, declared by experts and given the existing evidences, and if this goes on in this way market share would be lost in future, and this would be in a way that* The *airline* tickets *rates would decline and the reason for this lies in poor performance of advertising. Hence, the leading problem in this study is finding the most appropriate advertising tools in transport services of* The *Airline* of the *Islamic Republic* of *Iran so as to increase* the *airline* tickets *rates. Four types of internet advertising have been used in this study that includes display advertisings (e.g.* Banners, skyscrapers, *and hyperlink), rich-media advertising (e.g. pop-ups, and internet), emails marketing, and video advertisements. According to IBM* (2007) these four types of internet advertising contributed in 34% off the total revenues where display advertising, rich-media advertising, emails marketing and video advertisements contributed 21%, 9%, 2% and 2% of the total revenues from internet advertisements respectively.

2.   LITERATURE REVIEW

On the basis of internet advertising, quantitative models have been proposed. The applied model used in this study has been obtained using a mix of models including *Rodgers and Thorson's* Interactive *Advertising model (2000), Petty and Cacioppo's* Elaboration Likelihood *model (1984),* Vaughn's planning model (1986), and Structural Equation *Model* of *Ko* et al (2005) that a summary of each model has been proposed in following:

Rodgers and Thorson's Interactive *Advertising model in relation to the consumer behavior to internet advertising has been proposed in 2000. This model addresses introducing incentives and the first reasons for emergence of internet, and then defining variables affecting information processing by users, defined output from data processing (Hanafizadehh, Behboodi, 2009). As referred patterns used in this model include two areas, firstly a* Functional *concept on how users enter to internet, and secondly a processing concept on what the users do when faced with internet*

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advertising, that this comes to realize with an emphasis on structure of advertising incentives. The general assumption of this model stands on the fact that data processing appears in an interactive area, depending on a Functional structure. This model intends to categorize different internet advertisements and recognize properties of internet advertisements, and then detect factors affecting attention, memory and formation of users' impression. The main reason to design this model is that an integrative media requires an integrative data processing model as believed by *Rodgers and Thorson. Data processing relies on functioning of internet advertising and structure of internet advertising. As shown in figure 1, the main elements of interactive advertising model include areas under control of consumer and advertiser that area under control of consumer includes functions and data processing. The area under control of advertiser includes the structures of internet advertising, and in then end outputs would be found with consumer's responses to advertisement that consumer has received these responses from processing and analysis of structural and functional data. (Hanafizadeh and Behboodi, 2009)*
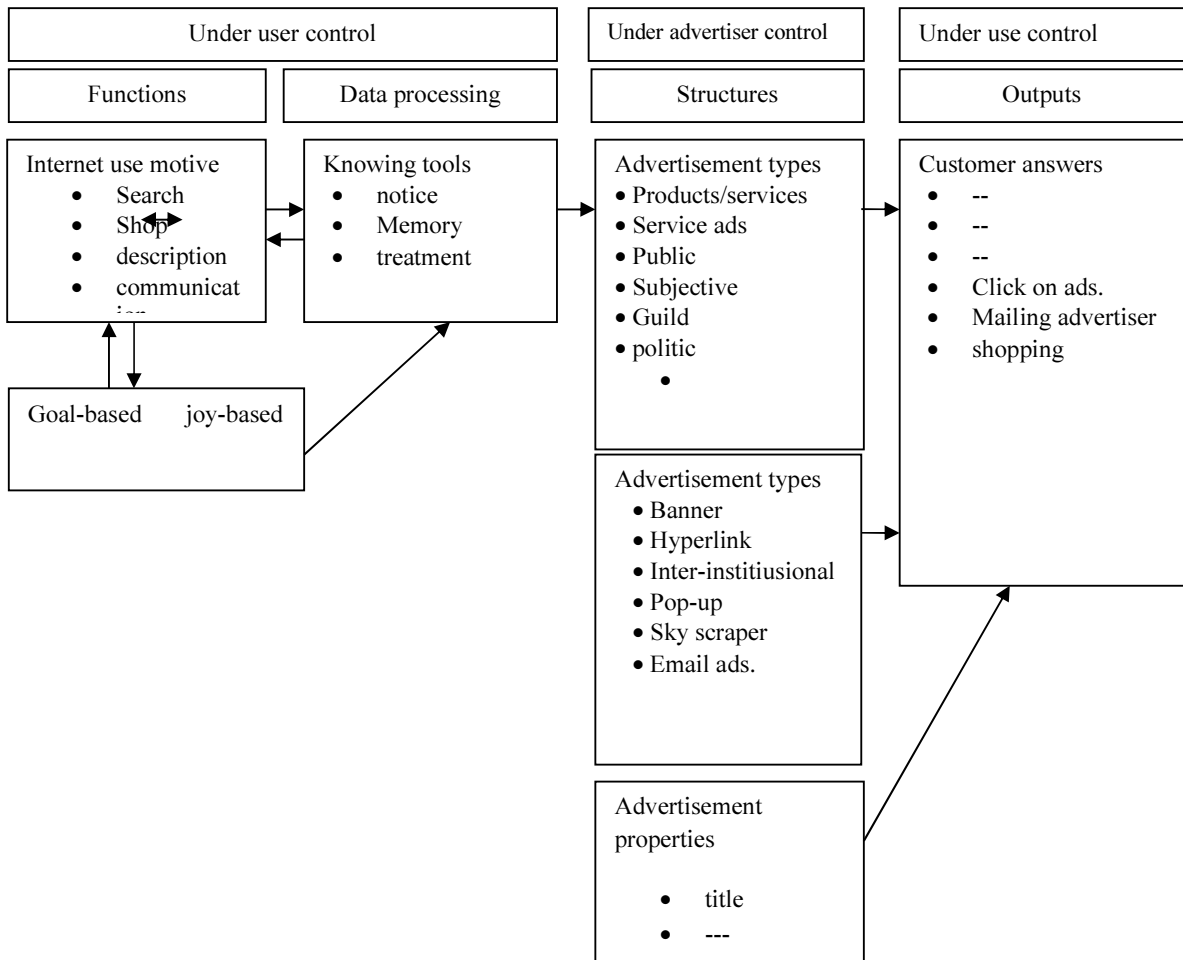

Figure 1. Rodgers and Thorson's Interactive *Advertising model*

Another model proposed by Vaughn in 1986 defined how the advertisement works. This model defines four standard groups based on involvement by goods and services. The first group includes those goods and services that consumers dedicate high accuracy to buy them, and strive spend too much time to learn and gather information required for them. Purchase such goods and/or services rely on the way of thinking, and such process of purchase is called rational purchase. The second group includes services and goods with high involvement but relied on emotions and feelings, and called experimental purchase group. Yet, two next groups are those groups that consumer involves less to purchase them, and include daily purchases and those purchases that carried out by reactions, relating to meeting personal needs.
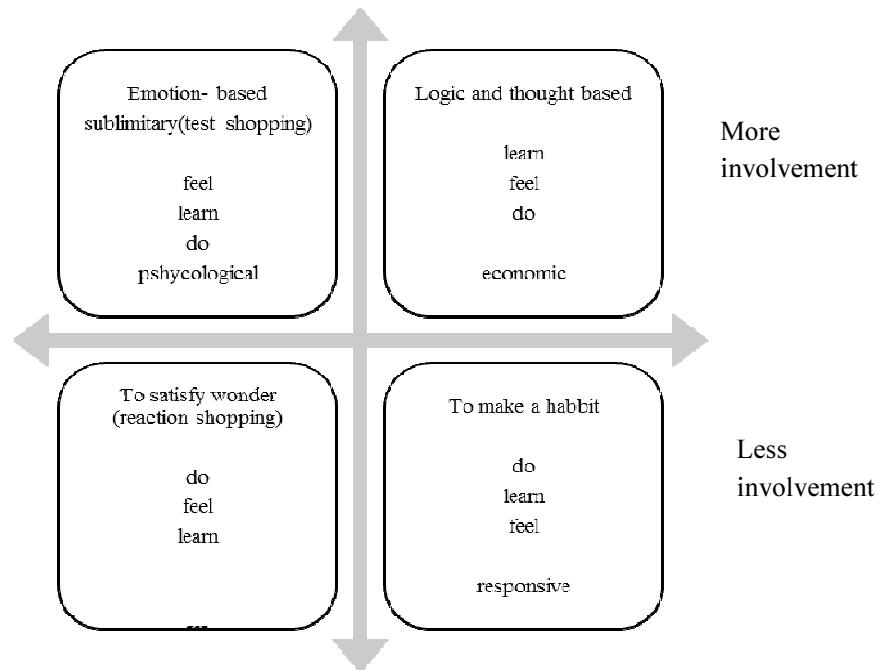
Figure 2. The model on how advertisements work

The third model is Petty and Cacioppo's Elaboration Likelihood model proposed in 1984. This model is a framework including paths to show how to persuade a consumer who has low involvement and high involvement. These two paths indicate involvement and/or complexity that consumer's attention and perception to message would be reported, followed by a new behavior in consumer. According to Petty and Cacioppo's Elaboration Likelihood model, processing advertisements is one of the second and/or central paths. The second path emerges with low involvement of product, and consumer focuses on incentives used to attend advertisement, yet the central path emerges when high involvement of product exists, and consumer spend high energy to process advertisements, focused on content of advertisements.

Another model is the Structural Equation *Model* of *Interactive Advertising Ko*, et al. (2005) in which interactive structure in terms of incentives in using internet and how impressed by site and brand name and intentions of consumer is examined. In this model, researchers addressed proposing how is the interaction between user with advertisement, using structural theory based on theory of use and satisfaction (Hanafizadeh and Behboodi, 2009). Most of the studies in the past include how impressed by internet advertisements, different forms of internet advertising, yet no study on the most appropriate method of internet advertising on one hand and how impressed and further effectiveness of internet advertising on the other hand has been carried out in companies of airline transport services. The important point which lies in an overview of literature review is that most studies on effectiveness of internet advertising associate to stage after choosing the most appropriate form of internet advertising. Clearly, these studies have been conducted regarding this supposition that the advertisement subjected to users, then how can improve its effectiveness to lead to more rate. This study steps backward, addressing how to choose a proper from of internet advertising within airline transport services using an applied model.

Central path

| High Involvement processing | Recognitive answer | Change in beliefs and view | Behavioral change |

Connections

Message canal

source

Attention and understanding

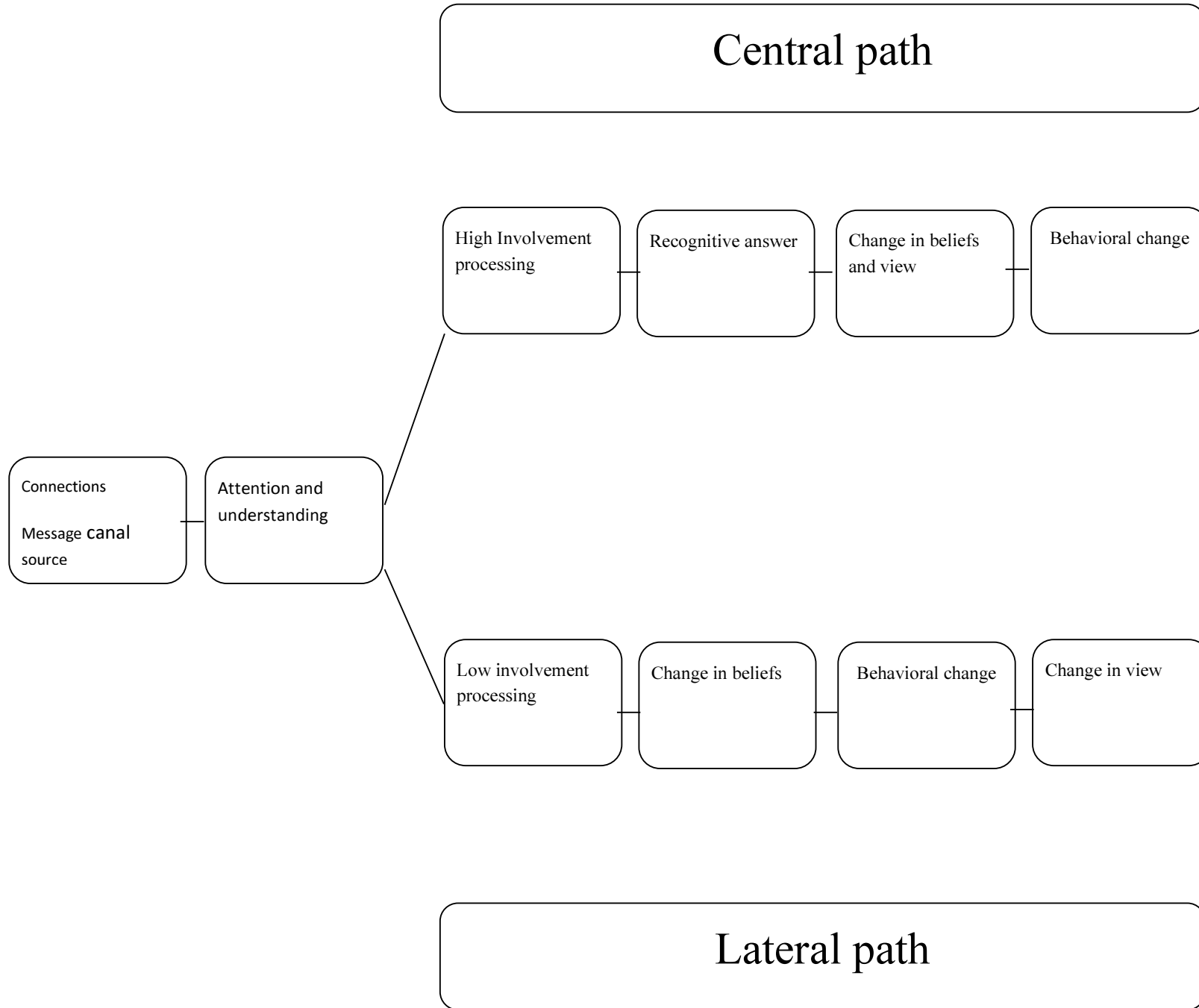| Low involvement processing | Change in beliefs | Behavioral change | Change in view |

Lateral path

Figure 3. Petty and Cacioppo's Elaboration Likelihood model

3. Research applied model

In general, it can say that model has been developed from internal variables and external variables, indicating choosing the proper form of internet advertising with regard to what factors has to be carried out. The factors and properties in the applied model have been confirmed via hypothesizing and assessing. Since this study aims to find the most appropriate method for internet advertising at airline transport services, the process of choosing model starts with airline transport services.
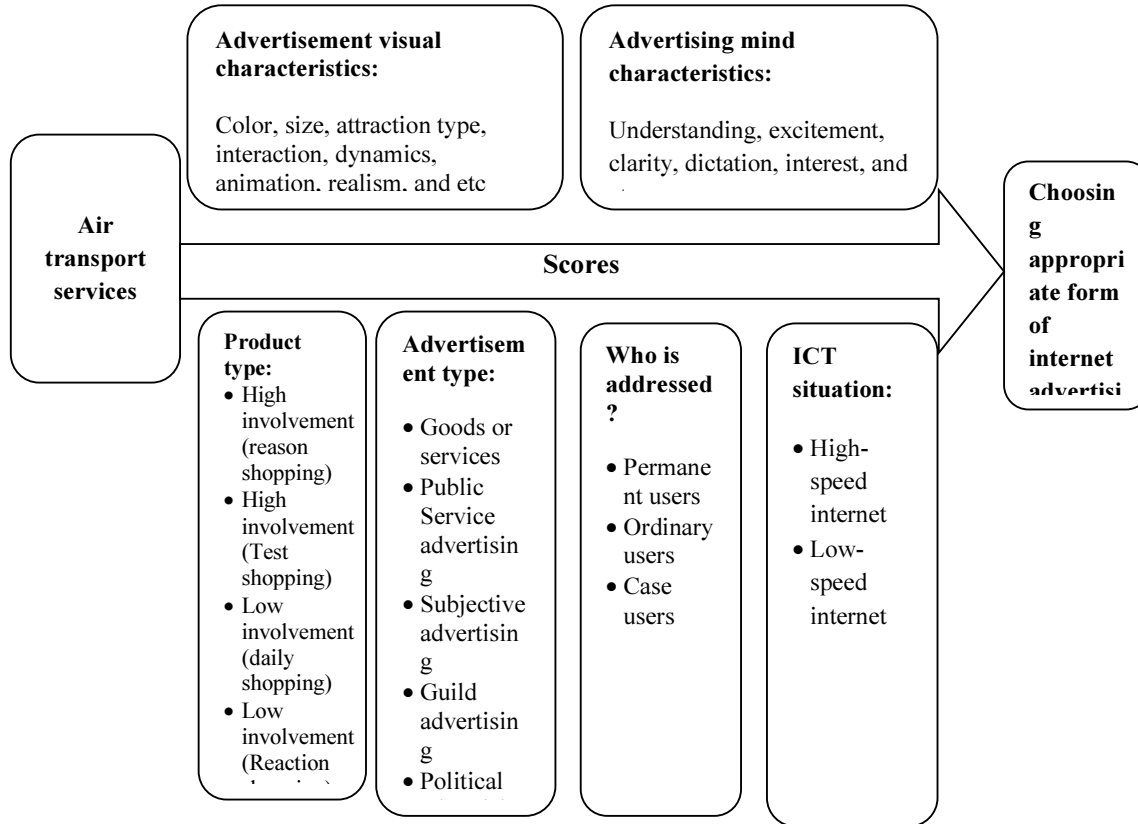

Advertisement visual characteristics:

Color, size, attraction type, interaction, dynamics, animation. realism. and etc

Advertising mind characteristics:

Understanding, excitement, clarity, dictation, interest, and

Air transport services

Scores

Choosing appropriate form of internet advertisi

Product type:
- High involvement (reason shopping)
- High involvement (Test shopping)
- Low involvement (daily shopping)
- Low involvement (Reaction

Advertisement type:
- Goods or services
- Public Service advertising
- Subjective advertising
- Guild advertising
- Political

Who is addressed?
- Permanent users
- Ordinary users
- Case users

ICT situation:
- High-speed internet
- Low-speed internet

Figure 4. The model to choose appropriate form of internet advertising

4. The process of choosing the proper form of internet advertising

The process of choosing the proper form of internet advertising goes forward in this way that the main ideal framework is designed given the internal and external properties, the properties for airline transport services and properties for the advertisement. The main ideal framework is the very applied model used in this study and its elements develop internal and external variables existing in applied model, that the best response to each element or variable and/or the ideal choice for each item based on results from mean of responses from interview and questionnaire will be obtained. This framework has been mentioned as a criterion to measure the properties of airline transport services and properties of advertising items. Each goods/service that is proposed for advertising firstly places inside this framework and advertising ideal is specified for it.

Table 1. The main ideal framework

Airline transport services	Properties of advertisement					Properties of Airline transport services				
	Type of appeal	Movement	Size	Interaction	How impressed	Involvement	Addressees	Type of advertisement	Strategy	ICT
Ideal										

Then, goods/service that its main ideal framework specified, compared with the ideals of the main item, and the closest item to good/service ideal is chosen as the proper form of internet advertising. The main ideals for each advertising item have been obtained in many studies, and show the standard for each advertising item for each goods/service. Table 2 indicates the main ideal framework for advertising items based on 10 properties.

Table 2. The main ideal framework for advertising items (Hanafizadeh and Behboodi, 2009)

Property of advertisement	Properties of advertisement					Other properties				
Form of advertisement	Type of appeal	Movement	Interaction	Size	How impressed	Involvement	Addressees	Type of advertisement	Strategy	**ICT**
Banner	R	Neutral	Neutral	Neutral	Negative	H1, H2	HML	All	Pull	**L**
Pop up	E	Positive	Neutral	Positive	Negative	L1, L2	L	All	Push	**H**
Interstitial	E	Positive	Positive	Positive	Negative	L1, L2	L	All	Push	**H**
Skyscraper	R	Positive	Positive	Positive	Positive	H1, H2	H	All	Pull	**L**
Hyperlink	R	Neutral	Neutral	Neutral	Positive	H1, H2	H	All	Pull	**L**
Email ad	E	Neutral	Neutral	Neutral	Positive	L1, L2	HM	All	Push	**L**
Digital video	E	Positive	Positive	Positive	Positive	L1, L2	HM	All	Pull/push	**H**

The process of choosing the proper form of internet advertising goes forward in a way that the results from comparing relative frequencies registered in form of a framework and this framework needs to be compared with all items, and the item with the highest closeness and similarity to the main ideal framework of airline transport services will be chosen as the most proper form or internet advertising method in sector of airline transport services.

5. METHODOLOGY

At the first stage proposed by proper items in relation to variables of model, questionnaire was designed to adapt the concepts considered by researcher and chosen model, and pre-test by help of some of professors at area of Tourism Management in Allameh Tabatabai University was carried out, and after being provided with necessary changes, the final questionnaire was evaluated in statistical population of research. Questionnaire includes two parts, the first part include two questions that a question is about characteristics of participant and the second question is about whether the participant has used internet to acquire information on airline transport services? The second part includes questions about this fact that how much the participant knows about properties of advertising types used in this study. In third part, participants' views in relation to variables of model were asked. The fourth part helps us to acquire the most proper form of internet advertising for airline transport services using both participants' views and model used in this study.

The score and percents allotted by participants to this model were divided into three groups to adapt them with what entered in main framework of advertising items. This is in a way that the items never and less often entered with negative sign, low and average entered with neutral, high and very high entered with positive. The difference seen in frequencies goes over measure that there would not need to testing the equality of frequency. To confirm this, one-sample difference test has been used. Hence, the highest relative frequency obtained in each group was measured with its item in spectrum (never, very low, low, high, very high), and the sign proportional to that item entered in the main ideal framework for Airline transport services.

5.1. Variables of model

The model used in this study includes two spectra:

R: this indicates logical appeal; logical appeal associates to those services and goods that consumer largely involves to buy them, addressing information gathering to buy them.

E: this indicates emotional appeal. Emotional appeal associates to goods and services that consumer less involves in it and the purchase will be just based on emotions and feelings.

Neutral: this indicates the item above in the given property is neutral.

Negative sign indicates that the item above in the given property has the lowest validity. Positive sign indicates the item above in given property has a proper positive sign.

H1, H2, L1, L2: these associate to consumer' high involvement in advertising. *H1* associates to goods or services that purchasing them is beside high logical involvement. *H2* associates to goods and services that purchasing them comes along with high involvement, but are based on feelings and emotions. *L1* associates to goods and services that purchasing them comes along with low logical involvement. *L2* associates to goods or services that purchasing them comes along with low emotional involvement.

H, M, L: H, M, and L stands for frequent users, ordinary users and case users, respectively.

In the section on ICT, variable L indicates low speed and variable H indicates high speed for internet.

5.2. Research hypotheses

H1: banners are the most appropriate form of internet advertising at Airline transport services.

H2: Pop Up is the most appropriate form of internet advertising at Airline transport services.

H3: Interstitial is the most appropriate form of internet advertising at Airline transport services.

H4: Sky Scrapers is the most appropriate form of internet advertising at Airline transport Services.

H5: Hyperlink advertising is the most appropriate form of internet advertising at Airline transport.

H6: Email marketing is the most appropriate form of internet advertising at Airline transport.

H7: Video Advertising is the most appropriate form of internet advertising at Airline transport.

5.3. Statistical population

The most appropriate place to have an access on a centralized population to study research hypotheses mentioned where the airline transport services are presented, advertising companies, university experts and passengers. Hence, Statistical population consists of professors and students of Allameh Tabatabaii University in Tehran, employees and passengers of Iran Air Airline Company and members of chosen advertising companies. To get feedback from Statistical population, face-to-face visit and online means were used. In this study, 59 participants attended. The respondents include members of agencies and advertising companies and experts at strategy of market, marketing, sale, web-based systems and internet.

6.   RESULTS

Data obtained of participants has been shown in tables 3-7.

Table 3. Gender of participants

Genre	Frequency	Percent
Female	22	37.2
Male	37	62.8

It should be noted that 56 individuals of participants have the master degree or higher degrees.

Table 4. Internet usage of participants per day

Internet usage per day	N	%
1 h	8	13.56
3 h	41	69.49
5 h	10	16.59
Total	59	100

To increase validity of results from research, participants were asked about their familiarity to properties of advertising forms, and the results as follows were obtained:

Table 5. The extent to which participants had familiarity to properties of advertising forms

	No familiarity		Very low		Low		Average		High		Very high	
	N	%	N	%	N	%	N	%	N	%	N	%
Banner	0	0	8	13.56	3	5	13	22	29	49	6	10
Pop up	3	5	7	11.86	20	33	11	18.64	13	22	5	8
Interstitial	6	10	9	15.05	15	25	18	30.51	8	13	3	9
Skyscraper	4	7	4	6.78	3	5	12	20.34	32	54	4	7
Hyperlink	12	20	7	11.86	26	44	6	10.17	6	10	2	3
Email marketing	1	2	5	8.47	13	22	24	40.68	12	20	4	6
Video ads	2	4	4	6.78	17	28	34	29.73	19	32	3	5

Since model is a scoring process, frequency and percent of scores allotted to variables of model by participants are as follows: as entered in main ideal framework, negative, neutral and positive shown for never and very low, low and average, high and very high, respectively.

Table 6. Score and percents allotted to variables of model

	Never		Very low		Low		Average		High		Very high	
	N	%	N	%	N	%	N	%	N	%	N	%
Appearances	0	0	5	9	7	12	23	39	21	35	3	5
Content	0	0	0	0	3	5	17	29	27	45	12	20
Dimensions	2	1	4	7	7	11	12	20	18	30	16	27
Animation	0	0	2	4	9	15	13	23	20	33	15	25
Interaction	2	1	1	2	8	14	11	18	21	35	16	27
Persuasion nature	3	5	2	12	6	10	16	27	16	20	11	18

The score and percents allotted to the most proper internet advertising in airline transport services in view of participants have been shown below:

Table7. Priority of participants from advertising forms under study

	1		2		3		4		5		6		7	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Banner	13	36.5	14	27.7	13	33.2	9	15.9	9	1.4	1	15.7	0	3.7
Pop up	5	45.7	4	67.4	15	24.3	14	16.5	11	14.7	3	13.4	4	7.3
Inter-network	6	36.8	1	15.3	1	22.5	1	1.7	1	16.3	9	16.3	45	1.5
Sky scraper	11	15.5%	14	17.4	3	16.4%	6	15.8%	3	5.3%	2	10.4%	1	6.3%
Hyperlink	0	17.4%	3	17.4	1	17.3%	5	42.3%	13	12.2%	13	14.7%	4	10.7%
Email	3	16.8%	11	18.4	5	14.7%	13	14.7%	14	11.6%	13	30.2%	3	5.3%
Video ads	11	14.5%	13	22.3	0	22.3%	1	13.2%	0	13.4%	9	3.7%	3	7.4%

7.   DISCUSSION

According to the results from questionnaires, In terms of involvement rate, 45.76% of respondents convey airline transport services as the topics with high involvement by users and make huge efforts to find information in this regards. Hence, airline transport services mainly are included with logical facet rather than emotional. In view of participants, 16.59% of participants are of frequent participants, 69.49% and 13.56% are of ordinary and case users. As a result, ordinary users are the users with the most access to internet advertising to airline transport services. Due to intense demand at this area, and given 54.28% of responses, since users with a high tendency explore finding information on airline transport services, a proper advertising strategy is a pull strategy. On the basis of the status for ICT given 54.24% of responses, since advertising strategy at organization is the very pull strategy and addressees actively seek to find information on airline transport services, using advertisements required with minimum internet speed is the most effective choice. Table 8 shows the ideal scenario for airline transport services.

Table 8. Ideal scenario for airline transport services

Airline transport services	Properties of advertisement					Properties of airline transport services				
	Type of appeal	Movement	Size	Interaction	How impressed	Involvement	addressee	Type of advertisement	Strategy	ICT
Ideal	R	Positive	Positive	Positive	Positive	H1, H2	M	All	Pull	L

Table 9. The main ideal for advertising in form of skyscraper

Airline transport services	Properties of advertisement					Properties of airline transport services				
	Type of appeal	Movement	Size	Interaction	How impressed	Involvement	addressee	Type of advertisement	Strategy	ICT
Ideal	R	Positive	Positive	Positive	Positive	H1, H2	M	All	Pull	L

As shown in table 9, advertisements in form of a skyscraper just with a difference are very close to the scenario of internet advertising at airline transport services. Hence, according to this model, the most proper form of internet advertising at airline transport services mentioned the very skyscrapers, thus given the results, H4 was proved and other hypotheses were rejected, that is, the skyscrapers mentioned the most proper form of internet advertising at airline transport services. The percents obtained of priority of participants to the most proper form of internet advertising confirm this result. In following, to evaluate and test accuracy of model, a content analysis in websites and Persian weblogs was conducted, and the advertisements associated to airline transport services were observed. Eventually, efficiency of model was confirmed, because a majority of advertisements associate to airline transport services in form of skyscrapers. The limitations in this study include less focus on consumer in choosing the proper form of internet advertising. According to the fact that consumer is one of leading factors in choosing proper form of internet advertising, it is required to conduct an in-depth study to reach an optimal result.

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