

# Consumer Intrusiveness of In-stream Advertisements

## Comparison of the Relation of Each Variables

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## **Consumer Intrusiveness of In-stream Advertisements Comparison of the Relation of Each Variables**

### **Abstract**

The purpose of this study is to compare the relationships among influence factors with consumers' perceptions of intrusiveness of in-stream advertising. In-stream advertising is defined as a video advertising displayed before, while or after viewers are watching main content on video-on-demand platform like YouTube. On one hand, in-stream advertising has been growing in an unprecedented pace; on the other hand, the problem of intrusiveness perceived by viewers is constantly raised by scholars and practitioners. Therefore, it is necessary for advertising agencies to alleviate this problem. Previous researches have indicated several possible factors that are correlated with intrusiveness: length, context congruency, product involvement, informative content, humorous content and frequency; however, no research has yet examined the relationships among each element and the degree of influence. Our objective is to compare the relationships among influence factors with consumers' perceptions of intrusiveness of in-stream advertising. We conduct a questionnaire with 428 Japanese students. As a result, this study revealed that Informative contents has the biggest relation to Intrusiveness among six factors.

**Key words:** In-stream ads, intrusiveness

**6074 words**

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## **I. Introduction**

Nowadays, young people watch much less TV on sets, while they move online for almost everything. Especially for teens and twenties, Internet usage time is getting longer than TV usage time. It causes that reaching to teenagers has become difficult. These change forces companies to shift their advertising media from TV to the Internet, as the growth rate of Internet advertising is way higher than that of TV advertising. In fact, according to ADVERTISING EXPENDITURE FORECAST, the expenses on TV advertising are 192 billion, which has increased by only 1% compared to last year, while the expenses on Internet advertising is 205 billion and has rocketed by 13% from 2016(2017). In particular, Video advertising, which is ranked first in the advertisement cost ranking is the fastest growing Internet advertisement. In addition, according to CYBER COMMUNICATIONS INC. and D2C INC., video advertising expenditure in 2015 is 51.6 billion yen, 1.6 times that in 2016, 86.9 billion yen. It is expected to grow to 1224 billion yen in 2017(2016). Also, it is predicted that video advertising will rise by 5 times in 2022. In other words, it can be said that video advertising market is expected as a place of new advertisement. Furthermore, video advertising market will further develop and it can be said that it is growing market.

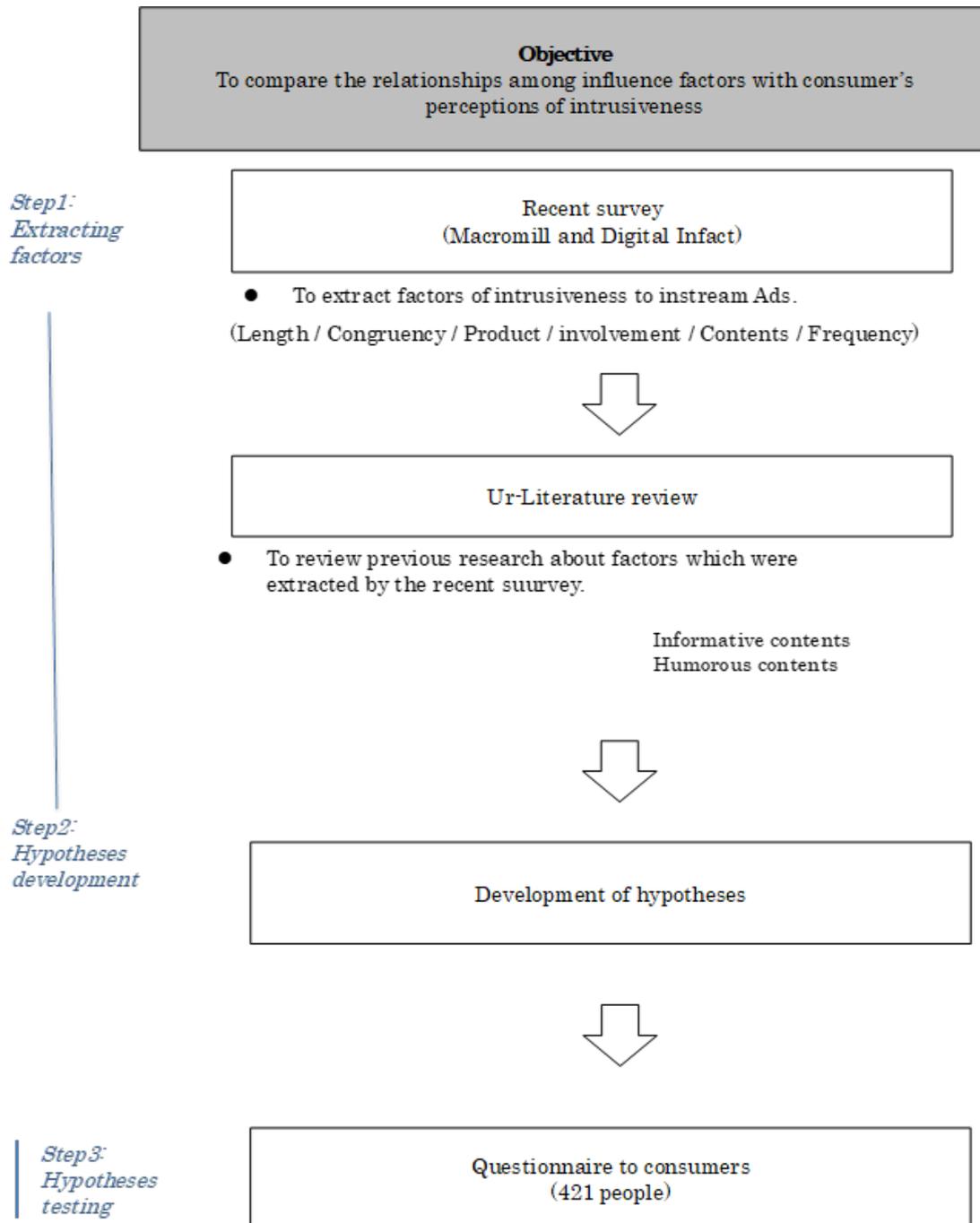
Video advertising is consisted of both in-stream advertising and out-stream advertising.

In-stream advertising is defined as “a video advertising displayed before, while or after viewers are watching main content on video-on-demand platform like YouTube.” in other words, people are interrupted while watching videos by in-stream advertising. As a result, intrusiveness is received by viewers. According to Video advertisement user survey 2017 by Digital Infact Corporation and Macro Mill, 54.3% of viewers perceived intrusiveness because of in-stream advertising, while only 12.7% of viewers feel intrusive due to out-stream advertising (2017).Based on the interview with Mr. Ito Takeshi in Cyber Agent, Inc., which is an Internet advertising agency, intrusiveness of in-stream advertising has been identified. Nevertheless, it is inevitable to satisfy customers’ needs by creating in-stream advertising, and advertising agencies do not consider unfavorable aspects while making advertisements. In addition, previous researches illustrate that perceived intrusiveness can generate consumers’ irritation, avoidance, and other negative attitudes toward the advertisements and even the brands (Li et al, 2002). More over, intrusiveness can negatively affect attitude toward ads, brand and purchase intention (Goodrich et al. 2015). More specifically, even though it is costly for production of advertising, intrusiveness still exists. Therefore, it is necessary for advertising agencies to take this factor into consideration through knowing possible causative factors

such as intrusiveness. In fact, factors of intrusiveness have already been clarified in previous studies. However, research has stopped at the stage of revealing the factor. Therefore, our study focuses on the relationships among influence factors with viewers' perceptions of intrusiveness. There is no need for advertising companies to consider all the elements, but reflecting on the most related factors would be extremely beneficial. To identify the most related factors help to fill the gap in the previous study. Furthermore, it is helpful and crucial for practical fields.

**The purpose of this study: To compare the relationships among influence factors with viewers' perceptions of intrusiveness.**

Table- 1 Research Flow Chart



Souse; Author.

## **II. Factors and Hypothesizes**

In this section, we extracted factors of intrusiveness and reviewed previous researches about these factors in order to set the hypotheses.

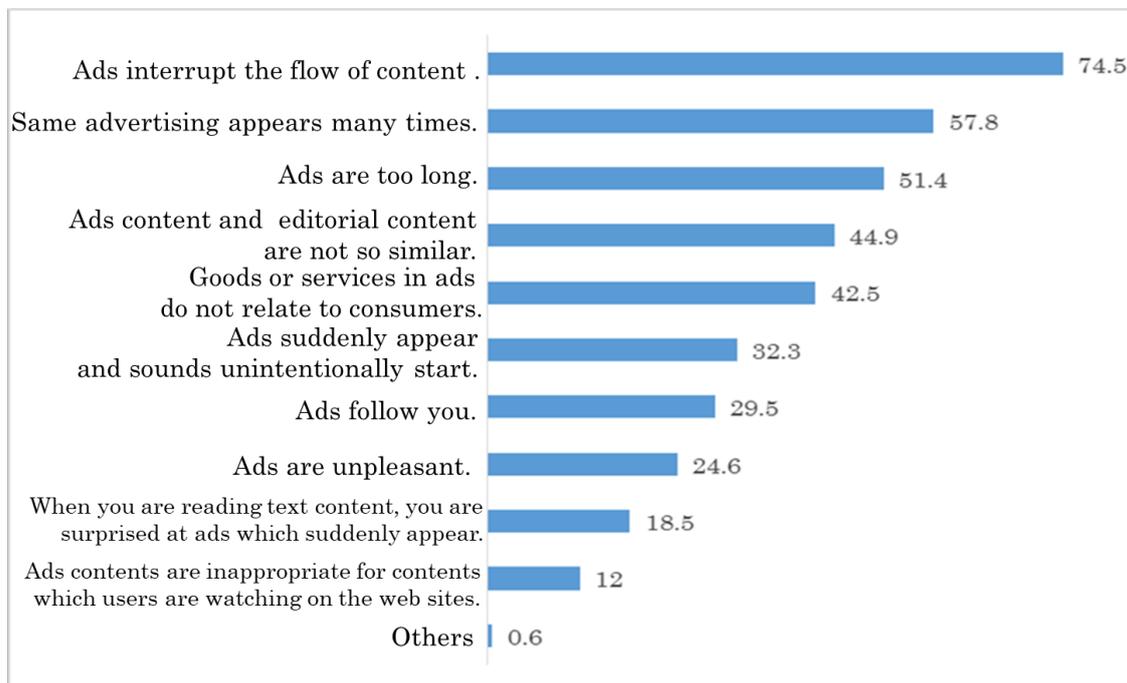
### **1. The definition of intrusiveness of instream-ads**

In literature review, Ha [1996] defined intrusiveness as “the degree to which advertising in a media vehicle interrupt the flow of an editorial unit”. This definition is on the basis of belief that intrusiveness is advertisements themselves. Nonetheless, Li et al. [2002] affirmed that intrusiveness is not advertisements themselves but the perception of consumers. Therefore, Li et al. [2002] redefined intrusiveness as “a perception or psychological consequence that occurs when an audience’s cognitive processes are interrupted”. Moreover, Cho et al. [2004] stated that the Internet is a goal-oriented media, where consumers can perceive intrusiveness more easily than other traditional medium. Thereupon, intrusiveness is defined as “a perception of advertising that interrupts consumer’s cognitive process for achieving a goal” in this research paper.

### **2. Previous research**

DENTSU MACROMILL INSIGHT and Digital InFact conducted a research by collecting data on situations when people perceive intrusiveness while watching videos.

Table-2



Source: 株式会社デジタルインファクト・株式会社マクロミル, 「動画広告のユーザー調査2017」 [https://www1.macromill.com/contact/files/report/b020\\_tz86au.pdf](https://www1.macromill.com/contact/files/report/b020_tz86au.pdf)(2017/10/04 アクセス)。

Five factors are selected and used for the research purpose: length, congruency, product involvement, contents, and frequency. Other factors are excluded because they do not have connections with in-stream advertising. More specifically, “advertisings interrupt the flow of content which you want to watch” is intrusiveness itself and “advertisings

suddenly appear and sounds unintentionally start”, “advertisings follow you” and “when you read text content, you are surprised at advertising which suddenly appear” do not apply to the characteristics of in-stream advertising. In other words, according to this research, “advertisings continue to appear for a long time” is “length”, “advertisings are similar to main content which you want to watch” is “congruency”, “advertisings which goods or services do not relate to consumers” is “product involvement”, “advertisings is unpleasant” is “contents” and “advertisement appear many times” is “frequency” (Table-3).

Table-3

DENTSU MACROMILL INSIGHT and Digital InFact Research	Our Research
Advertisings continue to appear for a long time	Length
Advertisings are similar to main content which you want to watch	Congruency
Advertisings which goods or services do not relate to consumers	Product involvement
Advertisings is unpleasant” is “contents” and “advertisement appear many times	Frequency

Source; Author.

### **3. Hypothesis based on literature review**

#### **(1) Length**

Based on the research conducted on TV advertisement, Wilbur, K. C. (2008) suggested that “10% increase in advertising time can decrease the potential audience size on a highly rated broadcast network by about 25%”. Pruyn et al. [1998] also showed the experience of a lengthy wait consists of affective states such as irritation. More importantly, Cho et al. [2004] revealed that when viewers sense the signal of goal impediment, they do avoid advertisements, along with what is discussed by Li et al. [2002] that the cause of ad avoidance is intrusiveness. Compared to TV advertising, length has a more powerful consequential effect on Internet advertising for the reason that Internet viewers are more goal-oriented. In other words, viewers could perceive more intrusiveness than traditional media, such as television. To conclude, viewers perceive intrusiveness as a result of a long wait and goal impediment caused by the lengthy content. Thus, the following hypothesis used (H1-1).

H1-1: Length has positive relation to intrusiveness in in-stream advertising.

## (2) Congruency

Congruency has long been discussed in the context of brand extension and advertising.

Heckler et al. [1992] claimed that congruency is composed of “expectancy and relevancy dimensions”. More specifically, brand extension is related to the dimension of expectancy and advertising is related to the dimension of relevancy, so the dimension of relevancy is drawn for this study due to the focus on advertising.

Furnham et al. [2002] defined congruency as “the significant degree of similarity between video contents and advertisement contents”. Congruency can improve the evaluation of the advertisements (Furnham et al [2002]) , and according to Russell, C. A. (2002), attitudes toward the brands can also be enhanced by virtue of congruency.

Namely, viewers may get irritated because of disconnection between advertisements and main contents (Chan et al. [2004]), and intrusiveness is the cause of such irritation (Li et al. [2002]). Ying et al. [2009] also underpinned the fact that advertisements which contain congruent information with the website are perceived as less invasive than those containing irrelevant messages. Accordingly, consumers perceive intrusiveness when in-stream advertising is incongruent with the main contents. Hence, the following hypothesis is adopted (H1-2).

H1-2: Congruency has negative relation to intrusiveness in in-stream advertisement.

### (3) Product involvement

Zaichkowsky, J. L. [1985] described product involvement as “inherent interests, values, or needs that motivate one toward the object,” and another definition by Aoki [1989] was the activated state of consumers when they view, purchase and consume goods as these actions are intimately associated with their value systems. More precisely, as what Bian et al. [2011] explained in his research paper, “In a high product involvement situation, consumers tend to focus more on highly diagnostic cues such as attribute and performance information/benefit to evaluate products”. In contrast, low product involvement induces a “peripheral route” to persuasion in which “consumers evaluate products based on some superficial analysis of readily available and salient cues in the stimuli presented to them, such as price and brand name”.

Product involvement is vital in terms of internet advertising since it deeply relates to personal interests. Contents which are related to personalized interest can improve consumers’ attitudes toward online advertising (Xu, D. J. [2006]), and more importantly, Wehmeyer, K. [2007] suggested that advertisements that can immensely involve

customers will reduce perceived intrusiveness than those with relatively low involvement. For this reason, the following hypothesis is established (H1-3)

H1-3: product involvement has negative relation to intrusiveness in in-stream advertising.

#### (4) Informative contents

Previous researches showed that perceived intrusiveness will be alleviated when viewers find the advertisements beneficial or helpful (Goodrich et al. [2015]). These benefits are represented as informative contents and humor (e.g., Goodrich et al. [2015], Li et al. [2002]). Therefore, two main factors – informative contents and humor – are identified through literature review. Informative contents are interpreted as helpful or useful information by Goodrich et al. [2015] and Li et al. [2002]. In fact, Goodrich et al. [2015] indicated that online video advertisements which contents are informative are perceived as less intrusive. For these reasons, the following hypothesis is established (H1-4).

H1-4: informative has negative relation to intrusiveness in in-stream advertising.

## (5) Humor

Humor was specified by Lee [1996] that human's mental stimulus can be triggered by factors like jokes and wordplays. Humorous advertisements are expected to be less intrusive than non-humorous advertisements because humor provides a more upbeat approach, contributing liking (Li et al. [2002]). In fact, Goodrich et al. [2015] indicated that online video advertisements which contents are humorous are perceived as less intrusive. For these reasons, the following hypothesis is established (H1-5).

H1-5: humor has negative relation to intrusiveness in in-stream advertising.

## (6) Frequency

Ying et al. (2009) insisted that "consumer want to experience what they expect when they go online. Too much exposure to the same ad or too many ads at once is a recipe for backlash". This show that Li et al. [2002] stated that the negative feeling of irritation may heighten too many and too frequency. The cause of irritation is intrusiveness (Li et al., [2002]). In addition, Bauer et al. [1968] affirmed that the frequent occurrences of advertisements can cause perceived intrusiveness. In like manner, Ying et al. [2009]

pointed out that less repetitive advertisements are less likely to result in intrusiveness.

On the basis of these previous researches, the following hypothesis is established (H1-6).

H1-6: frequency has positive relation to intrusiveness in in-stream advertising.

Here we show you hypotheses this study set:

H1-1: Length has positive relation to intrusiveness in in-stream advertising.

H1-2: Congruency has negative relation to intrusiveness in in-stream advertisement.

H1-3: product involvement has negative relation to intrusiveness in in-stream advertising.

H1-4: informative has negative relation to intrusiveness in in-stream advertising.

H1-5: humor has negative relation to intrusiveness in in-stream advertising.

H1-6: frequency has positive relation to intrusiveness in in-stream advertising.

### **III. Experimental Research**

Based on six proposed hypotheses in the last section, the relationships of these six elements will be examined giving consumers' intrusiveness in in-stream advertisements.

## **1. An outline of the survey**

### **1) Implementation date of the survey and survey topic**

This research period lasted from September 15<sup>th</sup>, 2017 to September 20<sup>th</sup>, 2017. Online survey questionnaire was conducted which targeted both male and female university students. The total number of respondents was 428 people, including 185 male students and 236 female students, and 421 responses were valid for the analysis, as the main priority for this analysis was to target people who have perceived intrusiveness of in-stream ads. Multiple regression analyses and structural equation model were adopted for this study. Hereinafter, it is called SEM.

### **2) Questionnaire items**

There are 21 questionnaire items on the online survey questionnaire concerning different aspects of in-stream advertising: “Intrusiveness”, “Length”, “Congruency”, “Product Involvement”, “Informative contents” and “Humorous contents”. This research method utilizes 7 subscales of “Intrusiveness” from Li et al. [2002], 2 subscales of “Congruency” from Miniard et al. [1991], 2 subscales of “Product Involvement” from Balanche et al. [2017], 4 subscales of “Informative contents” from Edwards et al. [2002] and 4 subscales of “Humorous contents” from Cline et al. [2007]. 7- points scale is adopted as “Strongly

agree”, Agree”, “Slightly agree”, “Neutral”, “Slightly disagree”, “Disagree” and “Strongly disagree” for all questionnaires. Table-2 shows what the questionnaire looks like.

variables	questionnaire items
Intrusiveness	Q1 Have you felt distracted by the instream Ads?
	Q2 Have you felt disturbed by the instream Ads?
	Q3 Have you felt forced by the instream Ads?
	Q4 Have you felt interfered by the instream Ads?
	Q5 Have you felt intrusive by the instream Ads?
	Q6 Have you felt invasive by the instream Ads?
	Q7 Have you felt obtrusive by the instream Ads?
length	Q8 How long was the instream Ads you wayched?
congruency	Q9 Was the instream Ads appropriate to the video afterward?
	Q10 Was the instream Ads related to the video afterwads?
product involvement	Q11 Were you interested in the product in the instream Ads?
	Q12 Were you involved with the product in the instream Ads?
informative contents	Q13 Did you feel helpful from the instream Ads?
	Q14 Did you feel important from the instream Ads?
	Q15 Did you feel informative from the instream Ads?
	Q16 Did you feel useful from the instream Ads?
humorous contents	Q17 Did you feel humorous from the instream Ads?
	Q18 Did you feel funny from the instream Ads?

	Q19 Did you feel amusing from the instream Ads?
	Q20 Did you feel playful from the instream Ads?
frequency	Q21 How frequent was the instream Ads you watched?

## 2. Empirical Results

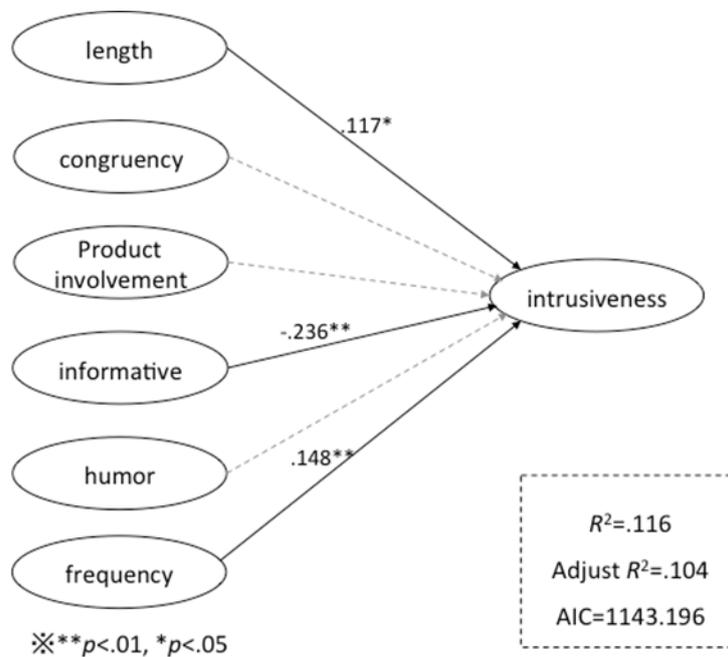
First, reliability of the questionnaire items were verified using Cronbach's alpha. The result showed 0.742 at "Intrusiveness", 0.893 at "Congruency", 0.825 at "Product Involvement", 0.917 at "Informative contents" and 0.828 at "Humorous contents". Cronbach's alpha is only preferable when it is more than 0.8. Therefore, question 6 under "Intrusiveness" is excluded from the analysis, as the result indicated 0.744, which was less than 0.8 and did not meet the standard. Consequently, the analysis is done through examining the data on the other 20 questionnaire items, except for question 6.

### 1) The result of multiple regression analysis

Various regression analyses were conducted, and table-3 is the result. It shows that length ( $\beta = .117$ ,  $p < .05$ ) and frequency ( $\beta = .148$ ,  $p < .01$ ) are positively related with intrusiveness, while congruency ( $\beta = -.032$ ,  $p = n.s.$ ), product involvement ( $\beta = .035$ ,  $p = n.s.$ ) and humorous contents ( $\beta = -.022$ ,  $p = n.s.$ ) are not related to intrusiveness. Hence, H1-1,

H1-4 and H1-6 are supported, but H1-2, H1-3 and H1-5 are rejected. However, the model is modified due to the low number shown in Adjust R2. However, the adjusted R2 value is low, which means the relationship is not so significant. So the model should be modified.

Table-3



Source: Author

## 2) Reestablish the model

In this section, hypothesis and model are redesigned. As shown in table 4, even though congruency, product involvement and humor are not correlated with intrusive, they are

correlated with informative contents. Therefore, these three variables are set behind informative.

Table-4

	<i>intrusiveness</i>	<i>length</i>	<i>congruency</i>	<i>product involvement</i>	<i>informative</i>	<i>humor</i>	<i>frequency</i>
intrusive	1						
length	0.178080203	1					
congruency	-0.166860236	-0.044864904	1				
product involvement	-0.19803932	-0.150015754	0.676234464	1			
informative	-0.270932553	-0.128798818	0.600240124	0.749130687	1		
humor	-0.191962072	-0.20369665	0.406350005	0.479877244	0.563105044	1	
frequency	0.198105558	0.206291723	-0.023092434	-0.049305738	-0.103193201	-0.11864285	1

Source: Author

Moreover, online advertising literature proved that the congruency between advertisements and media could improve cognitive evaluations of advertisements, making consumers more susceptible to the information of the advertisement and encouraging them to process the information more intensively and positively (Fazio [2001]). These effects can be explained by spreading activation model, which illustrates how human brain moves through a network of ideas in the same cognitive node to retrieve specific information and increase its cognitive availability for further processing (Belanche et al. [2017]). In other words, when messages conveyed in advertisement matches what is shown in the video, it is more possible for people to become interested,

and consequently, see the advertisements as informative contents. Hence, the following hypothesis is adopted (H2-1).

H2-1: Congruency has positive relation to informative in in-stream advertising.

The elaboration likelihood model suggests that involvement leads to an attentive state of mind, making viewers more motivated to process information (Belanche et al. [2017]).

According to Kim [2014], the reason why involvement can enhance information processing desires is because highly involving products are at high risk for consumers and they have fear about decision-making; accordingly, they try to reduce risk. Thus, we established following hypothesis (H2-2). For this reason, the following hypothesis is established (H2-2).

H2-2: Product involvement has positive relation to informative in in-stream advertising.

Lee [1996] indicated that viewers tend to evaluate advertisements as useful information when they sense humor in the advertisements. Additionally, Goodrich et al. [2015]

revealed that perceptions of humorous and informative contents can generate positive feedback from viewers, which proves the positive relationship between humorous contents and informative contents. Therefore, the following hypothesis is formed (H2-3).

H2-3: Humorous has positive relation to informative in in-stream advertising.

Here we show you hypotheses this study set:

H1-1: Length has positive relation to intrusiveness in in-stream advertising.

H1-2: Congruency has negative relation to intrusiveness in in-stream advertisement.

H1-3: product involvement has negative relation to intrusiveness in in-stream advertising.

H1-4: informative has negative relation to intrusiveness in in-stream advertising.

H1-5: humor has negative relation to intrusiveness in in-stream advertising.

H1-6: frequency has positive relation to intrusiveness in in-stream advertising.

H2-1: Congruency has positive relation to informative in in-stream advertising.

H2-2: Product involvement has positive relation to informative in in-stream advertising.

H2-3: Humorous has positive relation to informative in in-stream advertising.

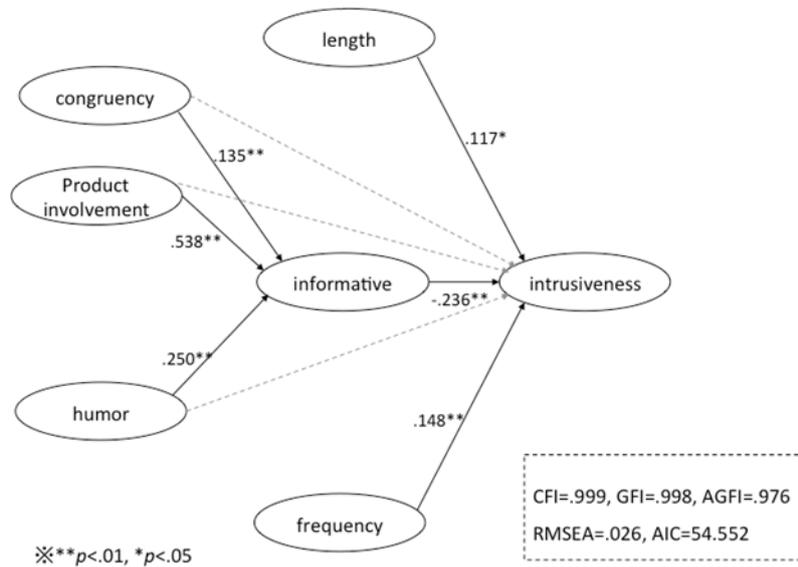
### 3) The result of SEM

This study uses SEM based on the reestablished model. The result of analysis is shown in Table-5.

CFI, GFI, AGFI are more than 0.9, which meets the standard (CFI=.999, GFI=.998, AGFI=.976). RMSEA is less than 0.05, which meets the standard (RMSEA=.026). Moreover, AIC of the first model is 1143.196. AIC of the new model is 54.552, which has improved compared to the first one.

The first model shows that length ( $\beta=.117, p<.05$ ), informative ( $\beta=-.236, p<.01$ ) and frequency ( $\beta=.148, p<.01$ ) are related to intrusiveness, but congruency ( $\beta=-.032, p=n.s.$ ), product involvement ( $\beta=.035, p=n.s.$ ) and humorous contents ( $\beta=-.022, p=n.s.$ ) are not related to intrusiveness. Therefore, H1-1, H1-4 and H1-6 are supported, but H1-2, H1-3 and H1-5 are rejected. Moreover, congruency ( $\beta=.135, p<.01$ ), product involvement ( $\beta=.538, p<.01$ ) and humorous contents ( $\beta=.250, p<.01$ ) are positively related to informative contents. As a result, H2-1, H2-2 and H2-3 are supported.

Table-5



Source: Author

#### IV. Discussion

To start with, direct relationships between each six factors and intrusiveness were investigated. The result presents that length and frequency negatively affect intrusiveness and informative contents positively affect it. Indeed, consumers usually extract valuable information. In consequence, consumers seek more values from informative contents, while short length and lower frequency have less influence.

This finding would be an important implication for advertising agencies who mistakenly consider length as intrusiveness. For example, Google prohibited fifteen-second in-stream advertisements on YouTube and introduced “Bumper advertisements,” as one of

the purposes is to reduce viewers' intrusiveness. However, this study clarifies that length is not closely related to intrusiveness; rather, the most effective way is to allow consumer view informative contents. This study also exhibits the positive relationship between length and intrusiveness. As what IAB claimed in 2008, longer advertisements are able to more effectively convey messages and emotions. Therefore, suggestions can be made for advertising agencies that it is essential to take the factor of informative contents into consideration.

In addition, there are no connections among context congruency, product involvement, humorous contents and intrusiveness, but they are positively connected to informative contents. They help reduce intrusiveness only when people perceive the advertisements as informative.

This study adopts questionnaire. Previous studies utilized laboratory experiments as their main research methods, which took place in controlled environments. Laboratory experiments are popular in natural sciences such as Physics, Chemistry and Biology by having control groups. In previous studies, each factor was examined by having participants watch certain video advertisements. However, problems emerge.

First of all, when they explored Congruency, Daniel, B. et al. [2017] asked participants to choose one video advertisement that they were interested in from five given advertisements. Consumers' interests are activated by Product involvement (Aoki [1989]). That is to say, these video advertisings included Product involvement as well as Congruency.

Secondly, previous studies tried to understand the significance of informative contents and humor by using only one video advertisement (Daniel et al. [2017], Li et al. [2002]). The content of a single advertisement is wat too limited to extract a fair amount of data to better analyze the topic, since people hold different perspectives regarding to different issues. Enlarging the amount of data can always positively contribute to the final result.

Therefore, questionnaire is adopted in this study for the purpose of gathering more comprehensive data instead of laboratory experiments. At first, participants were asked to recall a video advertisement which has triggered perceived intrusiveness.

Then, questionnaires were given to each participant by asking questions on each one of the factors. Questionnaire is a flexible research method by adjusting to different perspectives, and it allows to gather information on each element without duplication.

Furthermore, the correlations among these three variables: congruency, product involvement and humorous contents were further examined. The standardized correlation of product involvement is almost twice as many as that of context congruency and humorous contents. This might be because consumers regard advertisements that are relevant to their own value systems as informative contents.

To conclude, our study reveals that it is more likely and effective for viewers to consider advertisements with high degree of product involvement as informative rather than congruent messages, since product involvement contributes to informative contents the most, thereby reduces intrusiveness. Therefore, suggestions can be made to advertising agencies that taking product involvement into consideration is more useful and essential than focusing on congruency.

Moreover, this result suggests that online advertising is a more practical, powerful and competent media for advertisements to be perceived as informative. In fact, congruency has already been widely used in TV advertising industry. For example, when children watch animations on noon TVCM, the advertisements on that specific channel would relate to children's goods and services such as toys and ballet classes. However, product involvement is a relatively recent technique, which can only be

realized through the media of Internet. Namely, companies can combine this technique with big data technologies to better understand each consumer's preference, and serve different targets accordingly.

## **V. Conclusion and Limitation**

In this study, relationships among influence factors with perceived intrusiveness are compared. Advertisements that are able to actively involve consumers are considered as useful information, which assists in weakening perceived intrusiveness, even when the advertisements are lengthy. Nevertheless, there are limitations in this study.

To begin with, some standardized coefficients are not enough to indicate strong relationships. Although the relationships in the new model are statistically significant at the 5% or 1% significant level, they are still at weak or middle level.

Secondly, each influence factor can be independently dissected through online survey questionnaires, ambiguity of memory and prejudice might affect participants' responses.

Thirdly, the target group is only consisted of Japanese university students, which is hugely limited in terms of age range and educational level. Future research is expected to expand the number of participants of different age ranges.

Forth, a few our question items have a slightly different shade of meaning from English ones of previous studies thorough translation (Table-6). For example, it is generally said that the meaning of “humor” in the English-speaking world is deferent from that in Japan. On the other hand, “面白い (Omoshiroi)” means amusing or interesting as well as funny. Hence, future study should select words carefully.

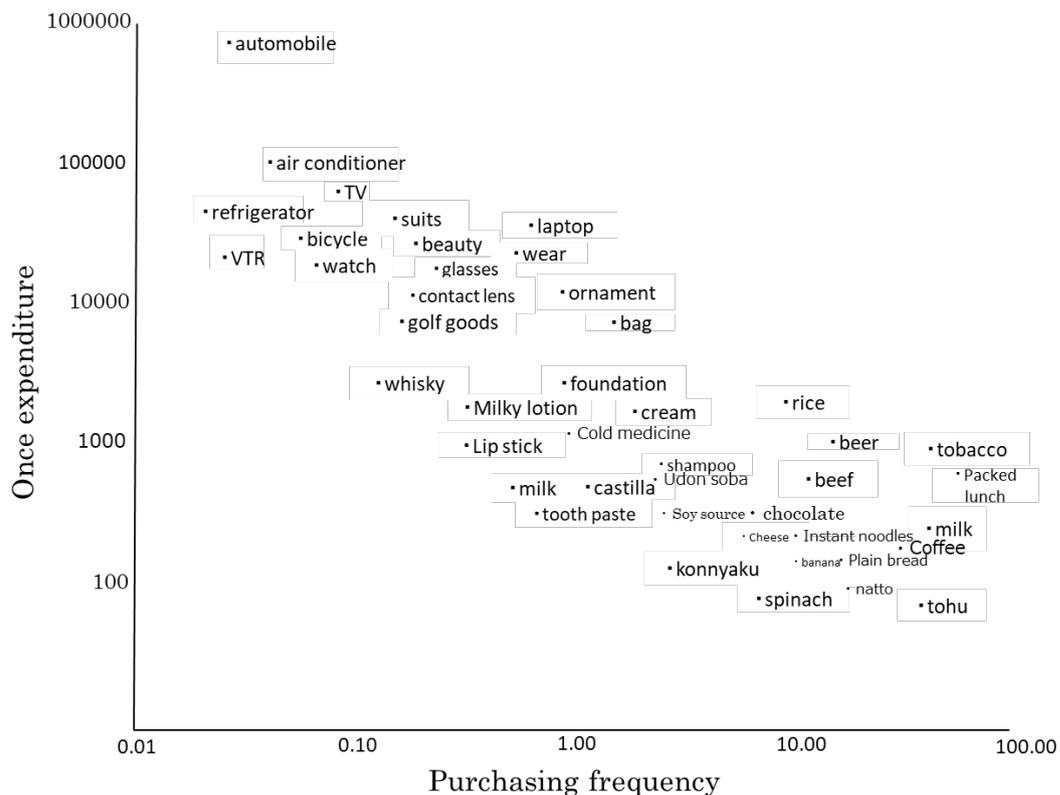
Table-6

variables		questionnaire items	Japanese translation
"Intrusiveness	Q1	feel distracted	気をそらされる
	Q2	feel disturbed	騒々しい
	Q3	feel forced	強制された
	Q4	feel interfered	干渉された
	Q5	feel intrusive	邪魔に思った
	Q6	feel invasive	私事を詮索された
	Q7	feel obtrusive	押し付けがましい
length	Q8	long	長い
congruency	Q9	appropriate	本編の内容と適応
	Q10	related to the video	本編の内容と関係
product involvement	Q11	interested in the product	興味のある製品
	Q12	involved with the product	あなたに関係している
informative contents	Q13	feel helpful	役に立つ
	Q14	feel important	重要
	Q15	feel informative	有益
	Q16	feel useful	助け
humorous contents	Q17	feel humorous	ユーモア
	Q18	feel funny	面白い
	Q19	feel amazing	素晴らしい
	Q20	feel playful	陽気
frequency	Q21	frequent	頻度

Source: Author.

Fifth, we do not mention products which lowly involve most of viewers though our study revealed that in-stream advertising which product highly involve viewers tend to be perceived informative by them. Lowly involving products are represented by food like fermented soybeans, cheese, coffee and so on, or daily necessities like laundry detergent, tooth paste, shampoo and so on (Table-7). There is less risk for almost viewers to these products (Aoki [1989]) so viewers rarely search them on the Internet. Hence, our study could no suggest to the companies which sell lowly involving products.

**Table-7**



Source: Author based on 大規博[2006]「戦略的マーケティング・コミュニケーション管理から見た消費財類型化についての提案」。

Finally, our study revealed that in-stream advertising which content is congruent with editorial content tend to be perceived informative by them. However, this study did not show that which advertising appeal to viewers with editorial contents about comedy, music or YouTuber. Future research might explore it.

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