

Effects of Expression Type of Mobile Video Advertisements to Customers

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Abstract: With the sudden change in the new media environment, the consumer's new media use behavior has changed entirely. Today, consumers do not evaluate the products' function and quality which the enterprise has. They choose the story which it involves. And the importance and value of the story are becoming bigger than any period. Now the mobile storytelling video advertisement is the advertisement media which has the biggest influence. To this, the research searches the mobile storytelling video advertisement's concept and characters and makes it as the foundation. It analyzes the consumer's sympathy response by brain wave experiment and question investigation in mobile storytelling video advertisement and expression type. It is to analyze that if the sympathy response can contribute to advertisement effect and prediction. This research implements the question investigation and brain wave experiment for 55 men and women from 20 years old to 30 years old who are interested in advertisements. By the advanced research, choose the 5 advertising materials categorized according to mobile storytelling's expression type. Then implement the analysis to each advertisement's preference type and consumer's empathic response by mobile storytelling video advertisement. In mobile storytelling video advertisement, consumer sympathy response's importance suggests the staff who uses practically storytelling video advertisements to do the advertisement campaign must consider if he gets the consumer's sympathy response.

Keywords: Mobile storytelling video advertisement, Expression type, Consumer, Empathic response

1. Introduction

1.1. Background and Purpose of the Study

The method attracting attention in recent academic and practical studies is storytelling that appeals to consumers' emotions [1]. Today, video advertisements based on storytelling, which has been converted into mobile forms, have secured a large number of consumers.

Mobile storytelling video advertising as the most influential advertising method, it takes on a role in promoting products, plays an important role in expanding brands, and communicates with consumers along with flat media. So, what part of mobile storytelling video advertising draws empathy from consumers? Although there are many practical and valuable studies on digital storytelling advertisements, there are not enough studies on new concepts of composition in academic terms [2]. Under the recognition of the lack of academic research on the practical value, this study attempts to explore the role of empathic response to the effects of storytelling advertisements.

The biggest characteristic of mobile storytelling video advertising is that it delivers a convincing story to consumers and draws empathic responses from consumers. Therefore, the expression type conveying the story convincingly and effectively is very important in a storytelling video advertisement. Namely, the purpose of this study is to suggest guidelines for establishing new advertising strategies that both companies and consumers can satisfy in establishing strategies for mobile storytelling video advertising by grasping these expression types.

1.2. Research Scope and Method

As a type of mobile storytelling video advertisement, storytelling video advertisements were collected for four years from 2014 to 2017. That is, storytelling video advertisements are classified into lecture video advertisements, drama video advertisements, real storytelling video advertisements, parody storytelling video advertisements, and creative storytelling video advertisements according to the expression types. Among the five videos collected by item, one advertisement each was chosen and analyzed for this study.

In this paper, the following research questions 1 and 2 are examined by using a survey and EEG (Electroencephalogram) experiment. EEG brain wave tests can measure that consumers have brain wave responses to elements of empathy with storytelling video advertisement. In the experimental research stage, the results of the EEG experiment and those of the empathetic response survey of the subjects were integrated and comprehensively evaluated to suggest what empathy response the mobile storytelling video advertisement causes to consumers and what brain wave response empathy has in the mobile storytelling video advertisement.

2. Theoretical Background

2.1. Definition and Characteristic of Storytelling

Figure 1 suggests that, in storytelling, enjoyment of the story in terms of participation, experience, and pleasure became a trait of the story in that ‘tell’ and ‘ing’, as well as story itself become a dominant element and the transformation of traits in a story, happens by various forms of ‘tell’ and ‘ing’.

2.2. Mobile Storytelling Video Advertising

2.2.1. Definition and Characteristic of Mobile Storytelling Video Advertising

Mobile storytelling video advertising is a conceptual sum of digital media and storytelling, which means a story method suitable for new technologies. Unlike the expression method dealt with in traditional offline media, the core strategy of the mobile storytelling video advertisement is positioned as a method of information exchange through voluntary empathy, so the strategy of acquiring empathy from customers should be prioritized. Therefore, the empathic response of consumers plays an important role in measuring the advertising effect in mobile storytelling video advertisements. Therefore, more companies will create stories related to their brands and products over time and use storytelling video advertising [3].

2.2.2. Types of Expression in Mobile Storytelling Video Advertisement

This study summarized the expression type of mobile storytelling video advertisement in Table 1.

Table 1. Types of Expression in Mobile Storytelling Video Advertisement

Types of expression in Mobile Storytelling Video Advertisement	
morphological type	lecture video advertising
	drama type video advertisement
	real storytelling video advertising
content type	parody storytelling video advertising
	creative storytelling video advertising

2.3. Concept and Form of Empathy

Empathy is what the observer who sees the emotion of the target person feels [4]. Empathy doubles the effect by transporting consumers into situations in a story. Absorption(immersion) means that consumers move away from reality to the world of the story. It reduces negative cognitive reactions to advertisements, increases the realism of the experience, and increases the persuasive effect of the story by causing strong emotional reactions by consumers [5].

Consumer's empathetic response to an advertisement is a requirement for a successful promotion. In this sense, it is very important to measure the empathetic response in measuring the effect of storytelling video advertising.

2.4. Empathic Response Elements of Consumers

In this study, mobile storytelling video advertisements proved that it was found cognitive, emotional, affective, and authentic through the previous studies about factors that measure consumer's empathic response. Details are the same as table 2 [6].

Table 2. Consumer's Empathic Response Elements of Consumer and Its Measurable Matters

Empathic element	Measurable matters
Cognitive	Measurement of the Usefulness, Reliability, and perception of value as information in Storytelling Advertisements
emotional	Measurement of Consumers' Conscious, Unconscious Responses, Attitudes, and Behaviors
Affective	The perception of pleasure and pleasure caused by advertisements
Authentic	Consumer's reactions to the things that can attract consumer attention and move the mind

3. Research Model

3.1. Issue and Model of Research

Based on the theoretical contents above and literature research, this study conducted a survey and EEG experiment on the effect of the expression type of mobile storytelling video advertisement on the customer's empathic response. The research model follows Figure 1.



Figure 1. Research Model

The core of this study is to analyze the brain wave indicator of beta waves indicating consumer's empathic response through survey and EEG experiment. The goal of the mobile storytelling video advertisement is to generate an emotional response to consumers. To find out the empathic response of consumers to mobile storytelling video advertisements, the subject of this study set up two research questions and their sub-hypotheses based on previous studies.

1) Research question 1: What kind of empathic response does the expression type of mobile storytelling video advertisement cause to consumers?

H 1-1 and H 1-5: Five types of mobile storytelling video advertisements will have a significant effect on consumers.

H 1-6: The expression type of mobile storytelling video advertisement will have a significant effect on consumers' cognitive empathy, emotional empathy, affective empathy, and authentic empathy.

2) Research question 2: What brain wave response will be shown in the mobile storytelling video advertisements in cognitive empathy, emotional empathy, affective empathy, and authentic empathy?

H 2-1: Cognitive empathy, emotional empathy, affective empathy, and authentic empathy will appear in the video commercials of mobile storytelling.

3.2. Methods of Research and Analysis

3.2.1. Research Method

In this study, we obtained a lot of data by measuring 8-channel EEG and tried to get closer to objective results with 55 subjects. This study adopted two stages of brain wave tests and surveys. The first stage is to measure and analyze the brain waves in an attempt to investigate the effects of mobile storytelling video advertisements on the empathic response to consumers. In the second stage, the subjects who participated in the EEG measurement were surveyed through questionnaires about the experiences they felt while watching images during the experiment.

The data were statistically processed for the stored EEG data and the questionnaires obtained by combining the results of the EEG experiments and surveys. The statistical processing was done by a statistical package program, SPSS Ver.19.

3.2.2. Contents of Questionnaire

This study analyzed cognitive, emotional, affective, and authentic empathy responses according to the expression type among mobile storytelling video advertisements. Also, this study surveyed by constructing various variables such as components, expression types, and empathic responses along with the basics of the subjects surveyed in the experimental waiting room before the brain wave experiment.

The measurement method was used by referring to the evaluation scale commonly used in previous research and the 5-point scale was used to measure. A total of 55 people have distributed 300 questionnaires, among which 275 questionnaires were selected as final samples.

3.3. Selection of Experimental Objects among Mobile Storytelling Advertisements

First, mobile storytelling video advertisements were derived from those aired in Korea for four years from 2014 to 2017. Next, Through the preliminary survey of the FGI(Focusgroup interview) target group interview[7] and based on the classification of the expression type of storytelling video advertisement, 25 out of the advertisements with more than one million views were selected and five were allocated for every five classifications. One advertisement for each category was selected by experts as the object of the experiment. Therefore, the study was conducted with 5 pieces, one for each type of expression of the storytelling video advertisement. To select the final experiment, through the FGI method, 20 participants including expert groups were selected. They were given a detailed concept of empathy and expression types before the preliminary survey. The final test of each expression type classification was selected by conducting a comprehensive evaluation of 20 subjects.

The final experimental advertisement selected below is a lecture-style video advertisement (There is no perfection), drama type video advertisement(dentiste minimovie a thirty-day promise), real storytelling video advertising(Hyundai Motor Group Gift Car-Season 7 Young Entrepreneurship, Kim Ae-sun), parody storytelling video advertising(Let's Enjoy, Practical-Sara), and original storytelling video advertising(Save the men who are in hunger! sneakers' emergency rescue).

3.4. EEG Experiment

Brain-wave or EEG (electroencephalography) is a flow of electricity that occurs when signals are transmitted between the brain nerves in the nervous system [8]. It is the most important indicator of brain activity, which is different depending on the state of mind and body [9].

This study is centered on the empathic response to mobile storytelling video advertisements. As a scientific and objective way of research, the experiment was conducted using an electroencephalogram that can evaluate the emotions and cognitive responses of human cognition in the domain of emotion.

For convenience in analyzing the experimental results according to the universality of consumer empathy response effects, the subjects were tested from the 20s to 30s, and a total of 55 subjects were selected. Demographically, 55 respondents analyzed were 29 males and 26 females, 35 in their 20s, and 20 in their 30s. As of July 2017, the proportion of mobile internet users among the population aged 3 years or older was 88.5%, and the ratio of men (90.8%) was 4.7% higher than that of women (86.1%), and the ratio of people was 99.8% in their 20s and 99.8% in their 30s. So the experimenter mainly tested people in their 20s and 30s [10]. The experimental tools are Laxtha's 8-channel QEEG equipment, model names PolyG-I and iPhone 6 Plus mobile phones. The experimental method is a combination of brain-wave testing and field surveys.

4. Research Analysis and Results

4.1. Analysis on Research Question 1

Research question 1 is what kind of empathy does the expression type of mobile storytelling video advertisement cause to consumers?

As for research question 1, or what kind of response customers makes on the expression type of mobile storytelling response, the analysis results showed that the drama type video advertisement was the most preferred to the consumers. And the lecture type video advertisement, drama type video advertisement, real storytelling video advertisement, parody storytelling video advertisement, and original storytelling advertisement had a significant effect on consumers in terms of cognitive empathy, emotional empathy, affective empathy, authentic empathy.

4.2. Analysis on Research Question 2

Research question 2 is what brain wave response will be shown in the mobile storytelling video advertisements with cognitive empathy, emotional empathy, affective empathy, and authentic empathy.

The results of brain wave measurement by mobile storytelling video advertisements are examined in detail and summarized as follows.

Table 3. Brain-wave Measurement Results by Mobile Storytelling Image Advertisement

	lecture type	drama type	real storytelling	parody storytelling	original storytelling	
advertising material	There is no perfection	dentiste minimovie	Hyundai Motor Group gift car	Let's enjoy it, Practical sara	sneakers emergency rescue	brain wave with no stimulus
Fp1	0.59±0.15	0.58±0.14	0.58±0.14	0.59±0.14	0.59±0.15	0.49±0.11
Fp2	0.61±0.12	0.61±0.11	0.60±0.12	0.61±0.12	0.61±0.13	0.51±0.09
F3	0.36±0.09	0.37±0.08	0.36±0.08	0.36±0.08	0.35±0.08	0.23±0.06
F4	0.37±0.10	0.38±0.08	0.36±0.09	0.37±0.08	0.36±0.08	0.24±0.05
T3	0.19±0.09	0.22±0.09	0.20±0.09	0.20±0.09	0.19±0.10	0.12±0.06
T4	0.16±0.10	0.21±0.12	0.17±0.11	0.17±0.11	0.15±0.10	0.10±0.07
P3	0.17±0.08	0.18±0.08	0.17±0.08	0.17±0.09	0.17±0.08	0.13±0.05
P4	0.15±0.09	0.17±0.10	0.16±0.08	0.17±0.09	0.16±0.08	0.13±0.06

As shown in [Table 3], the result of EEG measurement can be seen as RB (beta wave) by advertisement. Therefore, cognitive empathy, emotional empathy, affective empathy, and authentic empathy in mobile storytelling video advertisements show RB (beta wave).

The RB (beta wave) brain waves Fp1 and Fp2 of the five advertisements were higher than the brain waves of the non-stimulation, and the absorption rate was also high. So it can be seen that it has a great influence on the empathic response. RB(Beta wave) appears in mental activities such as the concentration of attention. Therefore, it can be seen that empathy in mobile storytelling video advertisements is more intense to consumers through objective brain wave measurement.

4.3. Results

Therefore, among the types of mobile storytelling video advertisements, drama-type video advertisements are 39.4%, which seems to be the most preferred by consumers. The above 5 pieces of storytelling video advertisements showed 50.5%-55.0% of cognitive feeling, 50.0% -55.3% of emotional and affective feeling, 49.1%-60.6% of the feeling of truth, 49.1%-50.9% of cognitive empathy, 52.4%-58.2% of emotional and affective empathy, and 51.4%-52.8% of authentic empathy. Because the average of empathy response was high with 3.80to 4.09, it is found that cognitive response, emotional response, affective response, and the authentic response has a significant effect on consumers. The beta wave graphs of each advertisement are highly activated when stimulated in Fp1 and Fp2, and therefore have a significant effect on the empathy of consumers. Based on this, empathy has a positive effect on mobile storytelling video advertising. The results of the survey are consistent with the results of the survey.

5. Conclusion

This study aims to verify the fact that empathic response should be measured when evaluating the advertisement response of mobile storytelling video advertisements. The most preferred type of mobile storytelling video advertisement was the drama type of video advertisement. The problems raised in the research question 1 of this paper were solved by proving that the level of empathic understanding of mobile storytelling video advertisements has a positive effect on consumers' cognitive response, emotional and affective empathy response, and authentic empathy response.

Observation of research question 1 proves that among the types of expression of mobile storytelling video advertisement, drama type video advertisement is the highest value for consumers, and drama type video advertisement is the most preferred among the research hypothesis 1-1 to 1-5. The average value of cognitive empathy, emotional empathy, affective empathy, and authentic empathy of 5 pieces Mobile storytelling video advertisement, and creative storytelling video advertisement, which is quite high. And the research hypothesis 1-6 showed that cognitive empathy,

emotional empathy, affective empathy, and authentic empathy of each expression type had a significant effect on consumers.

Finally, the EEG test showed that beta waves were active in two measurement positions, Fp1 and Fp2, and the level of empathic understanding of mobile storytelling video advertisements was found to be beta waves in consumers' cognitive empathic responses, emotional and affective empathic responses, and authentic empathic responses. Research question 2 is that the cognitive empathy, emotional empathy, emotional empathy, and authentic empathy in mobile storytelling video advertisements are shown to be the red and purple of the beta wave Fp1 and Fp2, and the figure is 0.58~0.61, so the research hypothesis 2-1 proved to have a significant effect on consumers.

In sum, it can be seen that the mobile storytelling video advertisements will have a significant impact on consumers' empathy response.

The empathic response has a significant effect on storytelling advertising, and thus it is a useful evaluation factor to be measured in the evaluation of consumer's empathy response for advertising effect prediction. The importance of consumer empathy in mobile storytelling video advertising suggests that practitioners who want to use storytelling video advertising to conduct advertising campaigns should consider whether consumers acquire empathy responses.

In the future emotional market, the advertisement which uses practically storytelling is not only the brand's image improvement but also is expected to be the tool that leads the formation of consumer and effective communication and sympathy bond. It should build the market strategy which is fit for each brand and consumer's preference by using practically storytelling video advertisement.

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Appendix A

The results of each advertisement were summarized as Fig. 2.

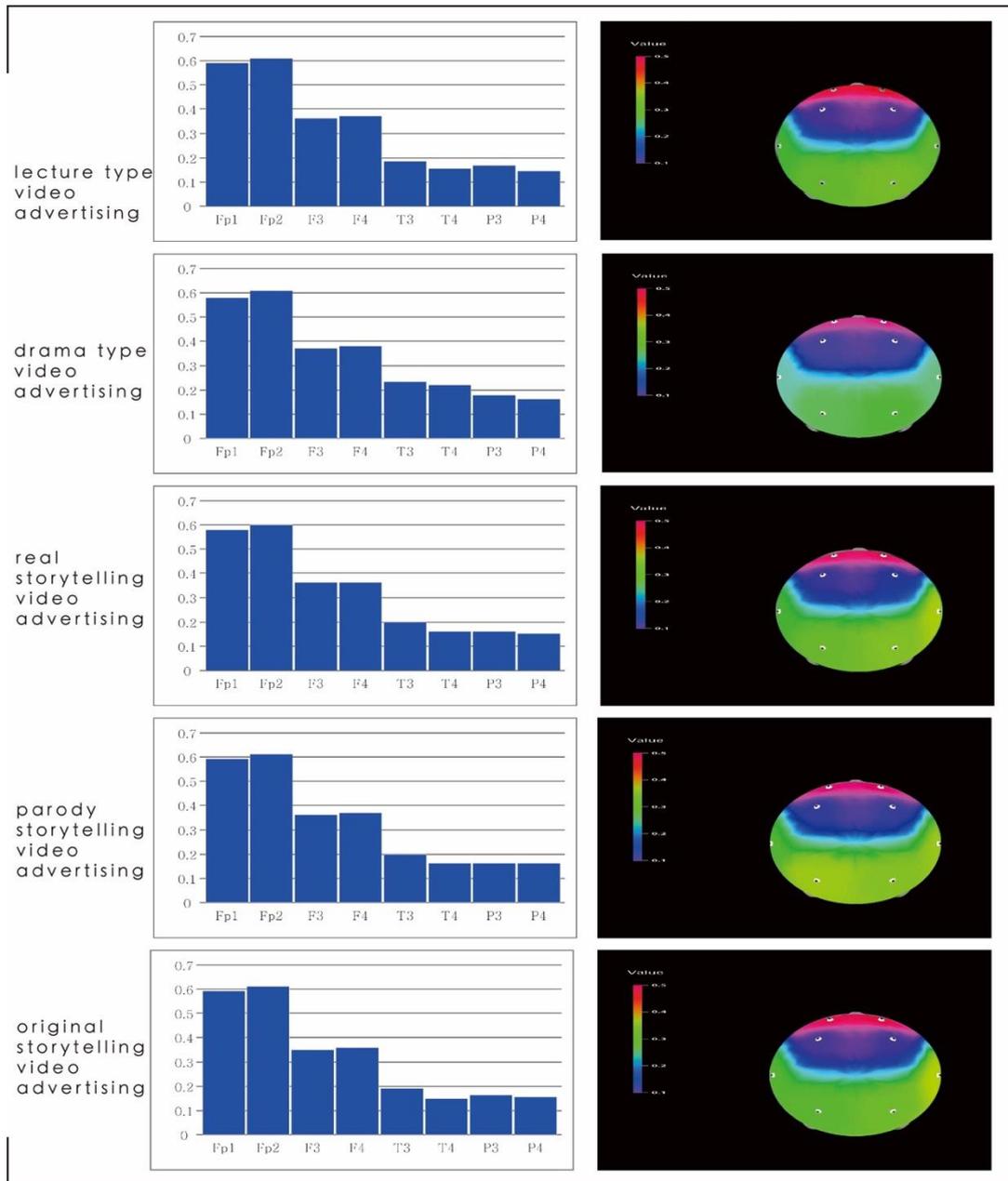


Figure 2. The Graph of beta waves and activity rate of 5 advertisements

The figure above shows that the RB(beta wave) brain wave Fp1 and Fp2 of the lecture video advertisement titled "There is no perfection: Kang Soo-jin" are 0.59, 0.61, and the RB(beta wave) brain wave Fp1 and Fp2 of the drama video advertisement "Deniste mini movie: A thirty-day promise" are 0.58, 0.61. The RB(beta wave) brain wave Fp1 and Fp2 of the real storytelling video advertisement 'Hyundai Motor Group Gift Car Season 7: Young Entrepreneurship - Kim Ae Sun' were 0.58, 0.60. Brain wave Fp1 and Fp2 of the parody storytelling video advertisements 'Let's enjoy' RB(beta wave) were 0.59, 0.61. Besides, the original storytelling video advertisement, "Save those who are in hunger(SNICKERS Hungry Rescue) recorded 0.59 and 0.61 in its Fp1 and Fp2.

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