

The Integration Effect of Product Types, Mobile Advertising Appeal Types, and Temporal Distance

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Abstract

The purpose of this study is to investigate different advertising integration effects for various product types, in accordance with the interactive role of temporal distance and types of mobile advertising appeals. As the correlations of ad attitude, product attitude, purchase intention, and click intention are very high, the advertising integration effect of a dependent variable was considered. The results are as follows: First, with utilitarian products, consumers show more interest in an informational mobile ad than an image mobile ad. Second, with social identity products, consumers show more interest in an image mobile ad than an informational mobile ad. However, for multiple products, a preference for an informational or image mobile ad varies according to the effect of temporal distance. An informational mobile ad is more effective when the purchase point is in the near future, but an image ad is more effective when the purchase point is in the distant future. Implications of those results are discussed for the advertising of consumer products.

Keywords: Advertising Effect, Component, Image Mobile Advertising, Informational Mobile Advertising, Mobile Advertising

1. Introduction

The arrival of a mobile environment is likely to create an instant approach to information and services. Direct purchase response can effectively link the point of communication with the point of purchase by locating consumers. Therefore, a new method is needed for mobile advertising and marketing techniques. To maximize mobile ad effectiveness, advertisers must diversify mobile ad message contents to match the different situations of individual consumers by providing customized ad products. In this regard, the type of advertising appeal is one of the most important communication factors because it functions as the basis for message persuasion. Advertising appeal is the use of a unique expression technique to lead customers to buy a product or develop a positive attitude toward it¹. The effect of mobile advertisement messages could be especially large in purchase decision making. Mobile ads for information delivery stress the primary properties of a product, that is, the product's objective, specific, and

functional properties. They explain multiple alternatives to the product along with key assessment criteria for the product's physical performance. On the other hand, image ads emphasize the secondary properties of a product, such as the emotional efficacy of product use, by addressing the surrounding atmosphere or images. Image ads present product sentiments such as ego expression to encourage customers to base their purchase decision on their emotional reaction to product qualities.

We attempt to discern differences in the interactive role of temporal distance and types of mobile advertising appeals to determine the presence of any overall advertising integration effect.

2. Background of the Study

2.1 Types of Advertising Appeals

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Advertising appeals are largely classified as rational appeal ads and emotional appeal ads. However, we use informational ads and image ads, based on Snyder², to consider the media circumstances of mobile advertising.

Informational ads provide specific information about a product while provoking a positive cognitive reaction to encourage consumers to think about the information and thereby affect their product knowledge and attitude. Image ads, on the other hand, provoke emotions, such as enthusiasm, vigor, pleasure, sense of belonging, etc., based on product-use experiences to generate a favorable reaction to the product.

Previous literature has moved beyond the research stage of identifying different consumer reactions to different ad appeal types into the stage of identifying which appeal method is more effective based on the effects of intermediary variables. Koo, Suh, and Lee³ reported that the two appeal methods were affected in their relative effectiveness by external factors, such as customer information level, social factors, cognitive desire level, market and competing firm status, and circumstantial characteristics of message exposure. One key psychological factor affecting ad appeal types that has recently emerged in lively research debate is the idea of temporal distance. If a purchase situation is farther away, consumers tend to make high-level interpretations and regard their decision as simpler and more abstract while being more sensitive to primary and central data. On the other hand, if a purchase situation is nearer, consumers tend to make low-level interpretations and see the situation as more specific and complicated while becoming more sensitive to secondary and circumstantial data.

Therefore this study presumes that advertising appeal is significantly influenced by the temporal distance between ad exposure and consumer purchasing decisions.

2.2 Temporal Distance Degrees and Advertising Appeal Types

The construal level theory, which focuses on cognitive interpretation of individuals' assessment of objects or changes in social situations, has been applied to consumer psychology studies. The most actively developed component of construal level theory is temporal distance. The larger the temporal distance felt by people from the subject of interpretation, the more they use high-level construal by considering a broader ground of assessment with a fundamental and abstract nature.

On the other hand, the smaller the temporal distance, the more people prefer low-level construal highlighting more specific and circumstantial properties^{4,5}. A high-level construal draws a specific deduction on general significance and essential key areas based on the basic properties of an interpretation subject. It emphasizes abstract, structural, decontextualized, and inclusive properties. On the other hand, a low-level construal draws a specific and detailed deduction on the interpretation subject based on its specific properties. It stresses non-structural, contextual, secondary, and subordinate properties.

Dhar and Kim⁶ contended that the greater the psychological distance felt in ads, the more the ads delivering product-central cues were effective for ad receptivity, whereas the closer the physical distance, the more the ads stressing peripheral cues were effective. In other words, a consumer considering a distant future purchase has more time to change his or her judgment or decision; therefore, image ads, which stress abstract and global information such as the basic nature of a subject rather than feasibility-supportive specific information, are deemed more appropriate. On the other hand, for a consumer considering a purchase in the near future, informational ads would be more appropriate because they provide a greater amount of accurate information about the specific situation of the subject of interpretation.

Based on previous literature, Kim, Kim, Li, and Zhong⁷ found that temporal distance accompanied differences in consumer attitude. Ledgerwood and Wakslak⁸ researched consumer preference according to the types of information presentation and temporal distance and found that as the purchase situation moved into the future, the level of abstraction customers tended to use in making a decision increased along with favorable evaluation of products assessed in a statistical and integrative manner. On the other hand, when the purchase situation was more immediate, consumers made a more specific evaluation and positively assessed products using a more explanatory and individual manner.

In summary, the studies above suggest that because consumers use different interpretation levels depending on the purchase point, ad appeal types could function differently as well.

2.3 The Interactive Effect of Product Types, Mobile Advertising Appeal Types, and Temporal Distance

The effect of ad appeals according to individual psychological characteristics is found to vary by product types^{9,10}. When buying a specific product, consumers assess its properties or criteria and establish some expectation for satisfaction. Such expectation about products varies by product type. Classifying product types depends completely on customers' subjective judgment of product value. That is, for the same product, different consumers can have different areas of concern. In other cases, a single product can have all the characteristics of different product types¹¹.

The product type, therefore, describe which properties consumers value, making it an important variable in the interaction between the interpretation level activated by a consumer's sense of temporal distance and ad appeal types. Given that product classification can vary by consumer, how can we classify products to effectively explain the mutual interaction effects of ad appeal types, psychological characteristics, and product types? A series of research findings on attitude functions shows one solution: classifying products into Utilitarian Products (UPs), Social Identity Products (SIPs), and Multiple Products (MPs) according to attitude and function¹².

UPs serve a utilitarian function as determined by an intention to maximize compensation (treatment) and minimize post-use punishment (side effects and cost). SIPs are used to express or manage one's own image and are thus purchased to express one's sense of belonging and obtain social recognition. MPs are complex products that can be perceived as UPs, SIPs, or both depending on the individual consumer and the sense of temporal distance. Therefore, unlike a simple product, MPs are expected to show different mutual interaction effects between the sense of temporal distance and ad appeals.

2.4 Hypothese

To achieve our research goal, we reviewed the literature on product type, advertising appeal type, temporal distance, and advertising attitude and intention to purchase; designed a research model based on those theories; established hypotheses; and verified the hypotheses.

H1> For utilitarian products, ad appeal types won't have an interaction effect with temporal distance, so consumers will show more interest in an informational mobile ad than an image mobile ad.

H2> For social identity products, ad appeal types won't have an interaction effect with temporal distance,

so consumers will show more interest in an image mobile ad than an informational mobile ad.

H3> For multiple products, the preference for informational and image mobile ads will vary with temporal distance. An informational mobile ad will be more effective for a near-future purchase, and an image mobile ad will be more effective for a distant-future purchase.

3. Material and Method

3.1 Method

This study proceeded in 2 steps, a pilot survey and an experimental stage. During the pilot survey, we chose a UP (cough medicine), an SIP (cosmetics), and an MP (sunglasses) and made an advertisement for each one by product type before conducting a manipulation check. We created a scenario to delineate temporal distance and verified that distant-future and near-future points were clearly perceived.

After the manipulation check, we conducted our experiment with 299 men and women in their 20s and 30s who use a smart-phone. Advertising appeals type and temporal distance appeared differently by product types through mobile ads. We used ANOVA to verify our hypotheses.

3.2 Measures

Product types were measured with the statements "Cough medicine is a product with important specific functions"; "Social image improvement is an important factor in cosmetics"; and "Sunglasses have both a utilitarian purpose and a social image improvement purpose." The hypothesis was tested with the manipulation check via a 7-point semantic differential.

The advertising appeal type assessment used 4 scales from previous studies: being rational – being emotional, being objective – being subjective, being realistic – being non-realistic, being specific – being abstract.

To manipulate the temporal distance (using near future as an example) we included the following explanation. 'A famous <product> manufacturer has developed a new product that will be made available nationwide <next week>. Please imagine that you will buy the <product> when it becomes available and read the scenario.' Scenarios changed only the involved products and temporal distance to make 12 ads¹³.

Respondents were also instructed to answer a manipulation check question, “If you had been asked to imagine buying the <product> in the previous scenario in <6 months/in a week>, would you feel the time to be longer or shorter?”. For all three product types, the respondents felt that a purchase point in 6 months ($M=4.8$ for UP, SIP, and MP) was farther away than a purchase point of a week ($M=1.53$, $M=1.8$, $M=2.07$ for UP, SIP, and MP, respectively; $t=19.115$, $p=0.010$; $t=19.843$, $p=0.000$; $t=16.852$, $p=0.000$ for UP, SIP, and MP, respectively).

4. Result

As expected, regardless of the temporal distance, consumers preferred informational mobile ads for UPs and image mobile ads for SIPs. Contrary to expectation, for MPs, consumers with distant-future purchase points preferred informational mobile ads, whereas those with near-future purchase points preferred image mobile ads.

As shown in Table 1, before the hypothesis testing, we found the correlation coefficients of the dependent variables (ad attitude, product attitude, purchase intention, and click intention). The advertising integration effect shows no significant main effect.

Table 1. Correlation coefficient among dependent variables

		Product attitude	Purchase intention	Click intention
advertising attitude	Person r	0.785***	0.652***	0.733***
	P	0.000	0.000	0.000
Product attitude	Person r		0.790***	0.813***
	P		0.000	0.000
Purchase intention	Person r			0.774***
	P			0.000

*** $p < 0.001$

As shown in Table 2, for UPs, temporal distance shows no significant main effect ($F=2.247$, $p=0.137$), but ad appeal types do show a significant main effect ($F=18.581$, $p=0.000$). The interaction effect of ad appeal types and temporal distance is not significant for UPs ($F=3.028$, $p=0.085$).

For SIPs, temporal distance shows no significant main effect ($F=1.692$, $p=0.197$), but ad appeal types do show a significant main effect ($F=67.932$, $p=0.000$).

The interaction effect of ad appeal types and temporal distance is not significant for SIPs ($F=0.311$, $p=0.578$). For MPs, neither temporal distance ($F=0.300$, $p=0.585$) nor ad appeal types show any significant main effect ($F=0.419$, $p=0.519$). The interaction effect of ad appeal types and temporal distance is significant ($F=7.764$, $p=0.006$).

Table 2. Result of ANOVA

Product	IV	R	F	P
Utilitarian products	Ad appeal types	7.732	18.581	.000***
	Temporal distance	0.935	2.247	0.137
	Ad appeal types $\times$ temporal distance	1.260	3.028	0.085
Social identity products	Ad appeal types	35.027	67.932	0.000***
	Temporal distance	0.872	1.692	0.197
	Ad appeal types $\times$ temporal distance	0.160	0.311	0.578
Multiple products	Ad appeal types	0.357	0.419	0.519
	Temporal distance	0.255	0.300	0.585
	Ad appeal types $\times$ temporal distance	6.607	7.764	0.006**

5. Conclusion

The study suggests that advertising effectiveness is significantly influenced by product type, temporal distance, and type of advertising appeal. Image-related ads were more valued in low-level construal, and information-based ads were more valued in high-level construal⁸. In other words, the product types used in this study were interpreted on different levels depending on temporal distance and product types.

Therefore, depending on various senses of temporal distance, the effectiveness of informational ads and image ads differed. In this sense, it is important to differentiate ad types and forms in line with the purpose of a mobile ad campaign. Because image-centered video ads are more effective in building a positive brand attitude than promotional banners, they would be more desirable if a mobile-based long-term campaign is to be continued. The forms of mobile-based image ads have also evolved

to include not only video ads but also web cartoons, web soap operas, native ads, brand journalism, etc. On the other hand, if mobile ads are used for quick clicks or short-term purchases, the trigger factor should be strong, making banners or promotional ads that provide specific information more effective. Also to improve the interaction between product features and sense of temporal distance, mobile ads should be linked to product purchase cycle and scheduling.

At the point of a new product release, product information needs to be fully provided to increase sales. But for more continued purchases, it is effective to add mobile-based image ads as well. Some products need to raise short-term purchase frequency; their ads would function most effectively by emphasizing product properties such as price, design, and purchase accessibility. Temporal distance can change the effectiveness of ad appeals types. So, before the season, image ads are needed to secure potential customers, whereas during the season, informational ads are necessary to deliver product functions, prices, designs, and promotional events. Mobile platform types could also vary consumers' sense of temporal distance and ad appeals types. For instance, suppose a customer reached a near-future purchase point. Then he or she could be influenced by ads in shopping malls, open markets, social commerce sites, etc. For such platforms or channels, informational ads are more effective than image ads. However, on portal sites, news pages, and SNS that receive frequent visits from consumers, periodic image ads are more persuasive for more distant-future product demand expansion. Therefore, mobile ads should change their forms or types according to their purposes.

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