A STUDY OF THE EMOTION EXPRESSION TECHNIQUES OF MOTION GRAPHICS: FOCUSING ON BRAND WEB SITES FOR MOBILE PHONES

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ABSTRACT:

In recent product purchase activities, emotional factors are increasingly affect purchase decisions. Accordingly, Korea's mobile phone brands that used to emphasize communication quality and function are gradually developing emotional marketing to stimulate the emotions of customers with the visual and auditory elements on their corporate websites.

By means of online questionnaires , this paper showed that motion graphics is being used to effectively transmit the emotions on the websites of Korea's mobile phone brands. By means of in-depth interviews, the paper also presented expression techniques of motion graphics appropriate for future emotional marketing strategies by analyzing the visual elements of motion graphics and the expression techniques of emotion images.

1. INTRODUCTION

Recently, consumers have been showing a tendency to make purchase decisions on the basis of emotional evaluations that emphasize emotions and feelings rather than rational evaluations focusing on the function and quality of the product. Accordingly, corporate strategies that used to emphasize capacity differentiation of products have been changing to emotional marketing that utilizes emotional factors.

In the mobile phone market of Korea, where competition is fierce, emotional marketing strategies have recently been making headway, and brand sites that use various emotion expression techniques based on visual elements as well as audio and motion graphics are being made into a major tool of emotional marketing. This paper, therefore, aimed to present emotion expression techniques suitable for emotional marketing through a study of motion graphics in the marketing of mobile phone brands.

2. STUDY METHOD AND SAMPLE SELECTION

This paper analyzed the three research questions below through a user survey.

Question 1: Does motion graphics function as an emotion transmission element among the expression techniques on the mobile phone brand site?

Question 2: Does the emotional strategy of the brand match the emotions felt by the user?

Question 3: What expression elements stimulate the emotions of the user?

Online survey was used as the method of the study, and the investigation period was from Nov. 3, 2005, to Nov. 15, 2005. The survey subjects were 103 females and males in their 20~40s, the age group that mainly use the Internet and carry mobile phones, and because the investigation required that subjects view sample motion graphics and respond the survey was conducted on a website.
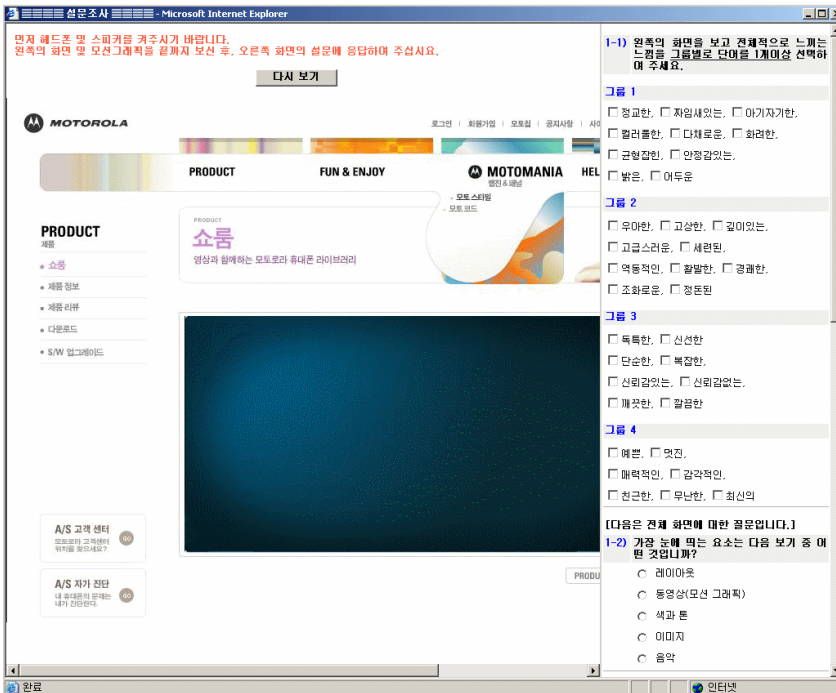
Figure 1: on line questionnaire page

In-depth interviews were carried out from Nov. 25, 2005, to Dec. 1, 2005. The interview subjects were graduates of two-year colleges or universities in the field of design. Eight current web designers with over five years of experience in motion graphics production were also interviewed. As for the interview method, one-on-one interviews were carried out, during which the websites used for the survey were shown and questions asked, and all the in-depth interviews were fully recorded.

As for the motion graphics samples, the intro animations on the websites of the mobile phone brand, in which motion graphics was used intensively were selected. As for site selection, from among the top six mobile phone brand sites, the ones offering recently released phone products that included extra MP3 and camera functions were selected.

The samples collection was carried out over two weeks from Oct. 3, 2005, to Oct. 14, 2005.
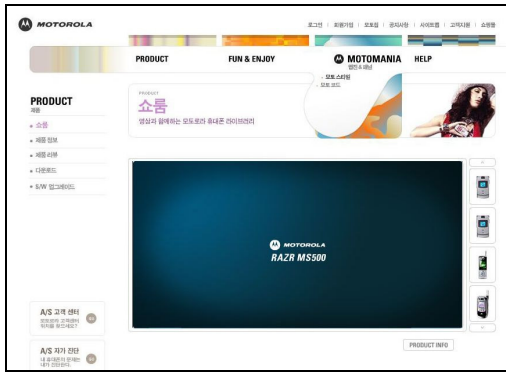
Figure 2: Screen shot of RAZR MS50, Motorola Lazer Anycall
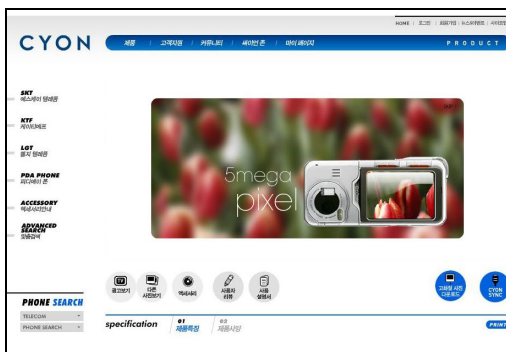

Figure 3: Screen shot of SCH-S30, Samsung
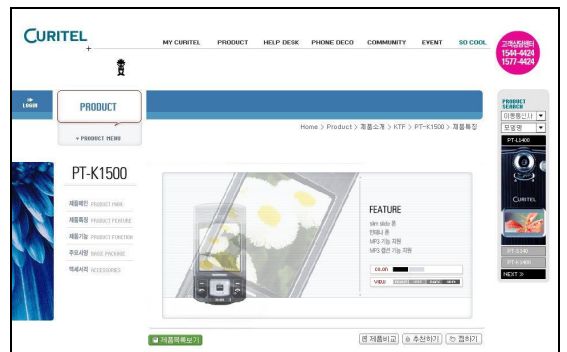

Figure 4: Screen shot of lg-kv5500, LG CYON

Figure 5: Screen shot of PT-K1500, Pantech Curitel
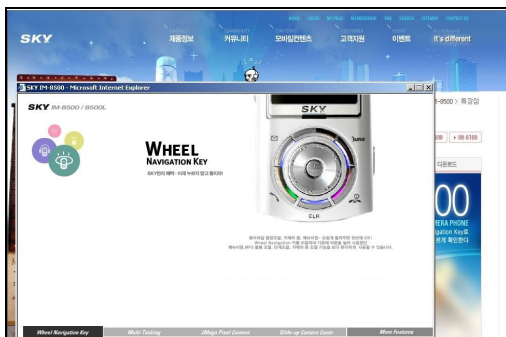
Figure 6: Screen shot of IM-8500, SKteletech SKY

Figure 7: Screen shot of KTF-X8000, KTFT EVER

3. SELECTION OF EMOTION IMAGE MEASURING INSTRUMENT

3.1 EMOTION EXPRESSION ELEMENTS AND EMOTION VOCABULARY

Regarding the classification of the visual design elements that influence user's emotions, previous studies (Yun Da-Yeon and Lee Hyun-Ju, 2004) were referenced and the elements identified in their reclassified. The visual design elements were largely classified into graphic design elements

and interaction elements. The graphic design elements were layout, motion graphics, color and tone, photos, image, and characters.

Since motion graphic expression techniques would be dealt with, the interaction elements were eliminated, and characters were also excluded because they were not used in the latest mobile phone brand sites. Since auditory elements had become prominent in emotional marketing and sound in motion graphics was being used effectively, it was included in the expression elements.

① layout, ② motion graphics animation, ③ color and tone, ④ image, ⑤ music

Figure 8: Emotion expression elements

The literature use was reviewed for the essential vocabulary of emotions and emotion expression techniques. There was a study which derived adjectival words using image association rules (Lee Un-Hyeong, 2004), but the factors in it were not used in this paper.

Factor	Adjective
The first factor (sensible aspect)	Elaborate, well-structured, fascinating
	Colorful, variegated, brilliant
	Well balanced, stable
	Bright, dark
The second factor (descriptive aspect)	Gracious, elegant, deep
	Luxurious, refined
	Dynamic, active, light
	Harmonious, well arranged
The third factor (evaluative aspect)	Unique, fresh
	Simple, complicated
	Reliable
	Clean, tidy
The fourth factor (Symbolic aspect)	Pretty, smart
	Attractive, sensible
	Intimate, reasonable, latest

Figure 9: Emotion vocabulary

3.2 EXPRESSION ELEMENTS OF MOTION GRAPHICS

Motion graphics is expressed through a combination of the elements of time and space and the use of various figurative elements. The major elements of motion graphics include synesthesia, typography, time concept and movement, and sound. The effective combination of these elements to represent effective images is the key point of motion graphics.

A previous study of emotion expressions in motion graphics (Ban Sang-Hui, 2004) focused on the relationship between each expression element of motion graphics and emotion inducement. According to this study, there are several expression elements of motion graphics, but the most distinctive features of motion graphics are time, movement, figure, background, and color.

4. EMOTION IMAGE OF EACH MOBILE PHONE BRAND

The results of the online survey showed that, regarding the question about which elements were the most distinctive among layout, movie clip (motion graphics), color and tone, image, and music, "motion graphics" was selected as the answer for five of the six brands, which showed that motion graphics was being used as a major element of emotion transmission.

In addition, in order to learn whether or not, the emotional marketing strategy corresponded with the emotion images on the website that users were responding to the emotional images of the brands deduced from the survey and the design concepts of the websites that were examined were compared. The results showed that for four out of the six brands there was correspondence.

Model name	Design concept of mobile phone brand website	Emotion image	Emotion transmission element
Motorola RAZR MS50	Color & Motion	Dynamic, Sensible, light	Motion graphics
Anycall SCH-S30	Reinforcement of emotions to see, hear and enjoy while being used more conveniently by customers.	Simple, Reasonable	Motion graphics
Cyon LG-KV5500	Feels good, 'CYON Idea'	Dynamic, light	Motion graphics
Curitel PT-K1500	So Coooool, new, innovative, unique	Reasonable, None	Layout
Sky* IM-8500	Unique color stimulating the sensibilities of people in their 10s~20s, and distinctive and elegant design	Bright	Motion graphics
Ever KTF-X8000	New content and design inducing active participation and visits of customers, and targeting the 19-25 age generation	Light, Splendid, Colorful	Motion graphics
* Because Pantech took over SK Teletech in July 2005, these companies could be seen as one, but since multi-brand strategy is scheduled to be used regarding 'Curitel' and 'Sky,' they were treated as two separate products in this paper.			

Figure 10: Analysis results of emotion images for each brand

5. EMOTION IMAGE OF EACH MOTION GRAPHICS EXPRESSION ELEMENT

During the in-depth interview, questions were asked regarding what emotions were felt for each motion graphics sample and what its major expression methods were. Results were obtained for each motion graphics element.

Element	Investigation Results
Time	▪ Sense of speed through light passing from the right to the left. ▪ Lightness from combination of fast music, speed, and movement.
Movement	▪ Laser movement is dynamic ▪ Light moves from the right of right to the left, the trajectory movement is dynamic ▪ The effect of light that starts out as a point and spreads out from the center is space sense and dynamic
Figure & Background	▪ 3-dimensional, and spacious cubic effect ▪ Mobile phone object with a bit of perspective appears and disappears, producing dynamic with movement in the same direction ▪ The dynamic movement of mobile phone and the stable movement of text are harmonious, well-structured, and light ▪ Using aftereffects, natural expressions on light source, layer blending, and size control become possible
Color	▪ Composed and futuristic, using blue scale that blend into gray color ▪ Tidy, using deep blue and life blue, emphasizing a bright image, instead of using various colors ▪ Stability and reliability that come from gray and blue colors ▪ Tidy, from harmony of blue color and white color feelings

Figure 11: Table of motion graphics expression elements according to each brand - Motorola

The results showed that "movement" is mainly used for the transmission of dynamic, light, and bright emotions, whereas "figure and background" was mainly used for simple and reasonable emotions.

Model name	Emotion image	Elements of emotion transmission in motion graphics
Motorola RAZR MS50	Dynamic, sensible, light	Movement > color
Anycall SCH-S30	Simple, reasonable	Figure-background > movement
Cyon LG-KV5500	Dynamic, light	Movement > figure –background
Curitel PT-K1500	Good, none	None > figure-background
Sky IM-8500	Bright	Movement > figure-background
Ever KTF-X8000	Light, splendid, colorful	Figure-background = movement

Figure 12: Elements of emotion transmission in motion graphics according to brand image

6. ANALYSIS OF MOTION GRAPHICS EXPRESSION TECHNIQUES FOR EACH EMOTION IMAGE

The transmission elements of each emotion image were analyzed in order to identify the specific emotions, and the expression methods of those transmission elements were organized under each brand and expressed examples.

6.1 EXPRESSION TECHNIQUE ACCORDING TO "DYNAMIC" EMOTION IMAGES

Motorola's light(laser) and Cyon's figure and products appeared to be examples that expressed dynamic emotion images. As for the elements that give a dynamic feeling in movement, elements such as speed and figure are more important than direction. Specifically, a sense of speed is important in the case of light.

Brand, expressed example	Element	Expression Method
The light of Motorola (laser)	Color	White with black background
	Figure	Figure, which from a point is seen as a line using motion blur

	Space	Arrange many lights into a view seen from the front, with the light in front being larger and in the back smaller
	Movement	Provide perspective using aftereffects on a group of lights that have been expressed with synesthesia in order to move them quickly from the right to the left, and have them go back and then come to the front
	Audio	Sound effect of some huge object passing

Figure 13: Expression technique according to dynamic emotion images –The light of Motorola

6.2 EXPRESSION TECHNIQUE ACCORDING TO "SENSIBLE" EMOTION IMAGES

The screen composition of the Motorola motion graphics showing a cutting edge product with multi cubes and the lines in the Cyon motion graphics were found to be examples that expressed sensible emotion images.

Brand, expressed example	Element	Expression Method
Motorola, Screen composition	Color	Gray and deep blue
	Figure	Square shape
	Movement	In the left and the right, different images are shown repeatedly in each partition, or transitional images turning into other screens are shown, and these make repeat and speed appropriate.
	Layout	Variety of composition with flexible use of width, length, and diagonal lines

Figure 14: Expression technique according to sensible emotion images – Screen composition of Motorola

6.3 EXPRESSION TECHNIQUE ACCORDING TO "LIGHT" EMOTION IMAGES

Cyon's moving typo and product, and the Ever product, were found to be examples that express light emotion images, and light was mainly felt when it was used specifically with background music and sound effects that explained the situation.

Brand, expressed example	Element	Expression method
Cyon Moving typo	Color	White, black, blue, pink
	Figure	Simple and tidy calligraphic style with non-serif style
	Back-ground	Background with gradation from top to bottom
	Movement	Fast speed. Contrast between strong and weak movements is large. Movement is connected from cut to cut, rather than with frames.
	Audio	Background music

Figure 15: Expression technique according to light emotion images – Cyon's moving typo

6.4 EXPRESSION TECHNIQUE ACCORDING TO "BRIGHT" EMOTION IMAGES

Cyon's background/images and Sky's images were found to be examples that express bright emotion images, and they seemed to be influenced by the color of the examples.

Brand, expressed example	Element	Expression method
Cyon,	Color	Green, red, sky blue, white
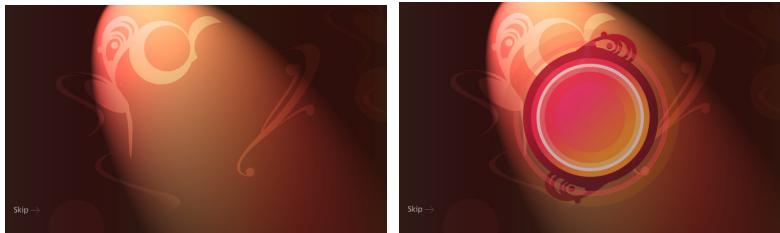
Background / image	Figure	Regular rectangle
	Movement	Passive movement that remains in a foggy state of blur in the screen background but then becomes a clear image according to the movement of the mobile phone liquid crystal

Figure 16: Expression technique according to bright emotional images – Cyon's background /image

6.5. EXPRESSION TECHNIQUE ACCORDING TO "SPLENDID" EMOTION IMAGES

Ever's background screen was found to be an example that expressed splendid emotion images.

| Brand, Expressed example	Element	Expression method
Ever, Screen Background	Color	From pink tone to thick purple and light beige
	Line	Patterns of bright and feminine line-drawing are drawn with thick round lines
	Figure	Round patterns of thick purple that emphasize mobile phone
	Movement	As color (illumination) becomes bright, the round shape of purple and mobile phone appear by turns. In order to emphasize the sound of mobile phone, overlapping round shapes tremble like the woofer of a speaker.
	Audio	Background music (background brightens in concert with the introduction section)
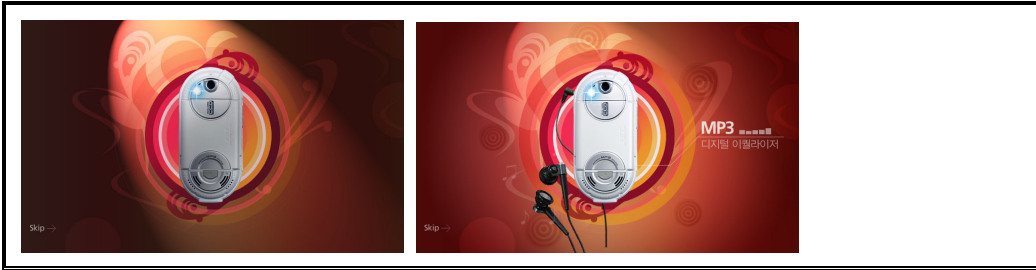
Figure 17: Expression technique according to splendid emotion images – Ever/screen background

6.6 EXPRESSION TECHNIQUE ACCORDING TO "COLORFUL" EMOTION IMAGES

Ever's image was found to be an example that expressed colorful emotion images.

Brand. Expressed example	Element	Expression Method
Ever, Image	Color	Various colors expressed with costumes of black, yellow, red, green, violet, and blue colors against a pink background
	Movement	Quick changes of liquid crystal images
	Audio	Camera shutter sound

Figure 18: Expression technique according to colorful emotion images – Ever / image

7. CONCLUSION

In order to examine the major elements of emotion transmission among the visual elements used on mobile phone brand websites, and to check whether or not emotional marketing strategy is reflected on those websites, the correspondence between their design concept and the emotion images felt by users was investigated. In addition, the expression elements and specific motion

graphics expression techniques that were used in each emotion image for the effective transmission of emotional marketing were investigated.

First of all, in across the websites of the five brands (Curitel from among the six brands was excluded) that were examined used the motion graphics element was selected as the most significant one. Motion graphics is used as a major tool of emotion expression for the online marketing of mobile phone brands, and websites are being designed with consideration given to emotion transmission.

Also, the fact that a brand's website concept and the emotion felt by users in response to the motion graphics of the brand's specific products corresponded in four of the cases signified that the transmission of emotion according to the marketing strategy was relatively effective on the websites.

In the case of Motorola, there was an exact correspondence between the motion graphics' "movement and color" that were felt by the users and the design concept "Color & Motion". In the case of Anycall, its strengthened "Showroom" offered the mobile phone to be experienced as if by directly seeing it in order to reinforce the emotional impact, but users perceived it as being reasonable rather than feeling it emotionally. Cyon attempted emotional marketing with dynamic and cheerful motion graphics in which the concept and slogan "Feels Good" was well incorporated. With Ever, its concept of mainly targeting the 1925 generation was also realized as light and splendid images in motion graphics. With Curitel, however, even though it had a brand identity called "So Cool," it could not even create the image of a state of the art mobile phone in its motion graphics, and in the case of SKY, its images did not correspond to its marketing strategy of stimulating the sensibility of people in their 10s~20s.

The major emotions of mobile phone brand sites are expressed in dynamic, sensible, light, and bright emotion images. In the case of Ever brand, which targets female consumers, it shows itself in "splendid and colorful" emotion images and the presentation of emotion images that stimulate target users' emotions can be effectively observed.

Also, the result of the in-depth interviews to discover which motion graphics elements were mainly used for the transmission of emotions showed that "movement" was used for the transmission of dynamic, light, and bright emotions, while "figure and background" were used for the transmission of simple and reasonable emotions.

Finally, the result of the analysis of motion graphics in terms of each visual element showed the expression techniques of motion graphics with superior emotion transmission effects to be as follows:

First, it was seen that movement in motion graphics effected superior emotion transmission when direction was given to an object to show perspective. Objects that showed perspectives were light (laser) and square figures, and product images of mobile phones were characteristically used as objects. It is judged that this was done to show off the design of mobile phones, which an increasing number of consumers think is important.

Second, if there is a desire to express speed when showing movement, sound effects used along with the movement enhance the effect. Specifically, when the sound effect reflects the characteristics of the moving objects, the transmission power is enhanced. The importance of sound effects is becoming so pronounced that it is not an exaggeration to say they are a necessity. In particular, the importance of sound is increasing in that it offers a sense of reality. Mobile phone brands represent high-involvement products along with automobiles, which need to be differentiated through a mixture of technology and emotions. Therefore, since there is a need to stimulate the emotions that fit both the users and the functions while transmitting the feeling that it is "fast, state of the art," effective display of speed becomes very important.

Third, if repetitive movement needs to be given to an object, its effect is enhanced with the allocation of various compositional layouts. Motion graphics can become boring if it is too long or the exposure time of the object is extended. However, if the object, such as a mobile phone image, needs to be continually exposed to produce a deep impression on customers, it is good to design various layout compositions in order to make the object look effective and not boring.

Fourth, the fact that when background music is used together with quick movements the effect is doubled, even if the size or range of the movement remains small, confirms the superiority of the effect when images and sounds are used together.

Last, it is clear that colors of strong luminosity are effective in transmitting emotions. In the cases of SKY and EVER, because the images of the mobile phones were mostly gray in color, using strongly luminous colors could deliver bright, brilliant, and colorful emotion images.

This paper investigated mobile phone brands to identify the ways in which brand websites are being used as a strategic instrument of emotional marketing, and presented the expression techniques for effective emotion transmission. The significance of this paper lies in the fact that, although it is difficult to study emotions, an attempt was made for objective study and analysis of emotions.

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