Utilization of Color Code for Revitalization of Local Characters

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Abstract

Local governments are recently developing local characters by using tangible and intangible resources representing their region in order to invigorate and promote local tourism. Local characters as well as a variety of character images act as a representative means of promotion. The present study is intended to suggest the application of color code technology to local characters in order to maximize visual effects of the existing local characters. The study will start with an introduction of current development situation of local characters and their application cases, and then suggest practical ways to take advantage of local character images based on the features of color codes and the cases of use.

Keywords:-component; character, color code, tourism, local character, character design, festival character

1. Introduction

Tourism industry in the modern world has become a core industry in each region as people enjoying leisure life and tourism are increasing due to introduction of five-day workweek, improved labor welfare and living standards, *etc*. Accordingly, many local governments have introduced and utilized CI (corporate identity) and characters as a way of local image building required for promotion in order to invigorate local industry and tourism.

Those local characters created have characteristic elements of each region and are being used as a representative means of local promotion. As in the cases of 'Hong Gildong' of Jangseong in Jeollanam-do Province, 'Chunhyang and Yidoryeong' of Namwon in Jeollabuk-do Province, and 'Nongae' of Jinju in Gyeongsangnam-do Province, local images are created based on the characters that symbolize each region in order to maximize local promotion effects. The reality is, however, that most of the created characters are disappearing except for some due to local policy changes, lack of professionalism and budget, *etc*.

In this study, we present several cases of local characters including the problem that a number of characters are not properly utilized and suggest, as a way to take advantage of existing local characters, the application of color code technology which is more advanced than the existing QR code technology

2. Problems in Use of Local Characters

Recently, local governments are very active in using tangible and intangible local resources to enhance and promote local images. Especially as indigenous cultural elements emerge as a main topic of cultural tourism, the strategy to enhance images through the development of cultural resources has been strengthened. Since local images act as an important factor for tourists to plan and carry out tourism, local

characters have been created and used to highlight differentiated local images. Most local governments have created their own local characters for this purpose.

Figure 1. Local character designs of Yeosu, Jeollanam-do (Admiral Yi Sun-shin)

Depending on utilization and operational capabilities, local characters become a local brand or a means of local promotion or act as mascot of particular local event. In this regard, local characters are symbolic media that contain both local people and local culture and used to form and promote a good image as a tourist destination more attractive than any other regions.

Figure 2. Local Character Designs Of Jangseong County, Jeollanam-Do (Hong Gildong)

Local governments have developed various types of characters according to their purposes. In addition, along with the increase of local festivals, a number of local characters have been created based on local cultural heritage and specialties. However, most of the characters did not properly reflect local images and could not be commercialized since they were created without consideration of local development direction and future vision. This was mainly due to low professionalism of dedicated staff and lack of interdepartmental communication, caused by frequent change in personnel in city hall or county office. Therefore, local governments need to differentiate their strategies to revitalize the characters step by step.

Figure 3. A number of Characters of Hamyang County, Jeollanam-do

In the case of Seoul, 'Haechi' has been used as an official symbol since 2009. 'Haechi' was created as a symbol representing unique image of Seoul with a motif of 'Haetae' that is a good and auspicious imaginary animal, for the purpose of improving competitiveness and brand value of the city of Seoul. Haechi was created in the background of Gyeongbok Palace, a representative cultural heritage of Seoul. After creation of the character Haechi, Seoul has promoted Haechi on a large scale through smartphone application "Talking Haechi" as well as TV animation "My friend, Haeri" produced by itself. However, "Talking Haechi" and "My friend Haeri" failed to give a strong impression to the public and their official websites and character shops have been closed in the indifference of the public.

Figure 4. 'Haechi', The Official Character of Seoul

Recently, Seoul uses "Tayo the Little Bus" in a variety of ways as a promotional tool while introducing Tayo design into city buses and promoting "Tayo the Little Bus" in its PR center. Thus Haechi, the unique character of Seoul, is receding from the memory of citizens while "Tayo the Little Bus" is recognized as the representative character of Seoul.

Figure 5. City buses of Seoul with character "Tayo the Little Bus"

3. Cases Of Application of Smart Codes

As smartphone gets popular, many companies and institutions have competitively introduced QR code-based marketing for some time. QR code is a smart bar code that has appeared after bar code and now widely used in various fields and purposes such as museums, shops, library, *etc*. While the existing bar code stores only numerical information of around 20 characters and requires a special interface to read the numbers, QR code has been used in various ways for marketing and PR due to its convenience and economic efficiency due to the fact that QR code contains more information and can be read by smartphones.

Figure 6. Case of QR Code Use

This QR code, however, has a disadvantage that it has no design features because it uses only black and white regardless of contents to contain.

Figure 7. Designs of QR Code and Color code

Unlike QR code, color code is a mobile code solution combining 'Color' and 'Technology'. While QR code was developed in Japan, color code is unique bar code technology of Korea. Color code was developed in 2011 by adding design features to two-dimensional bar code that has been developed to overcome storage limitation of one-dimensional bar code. The biggest advantage of the color code is that it can be designed in a variety of colors. As the resolution of smartphone is improved, more detailed colors can be implemented by color code.

Table 1. Features of QR Code and Color code

Types	Features
Color Code	- Pattern and color recognition - No need of focusing for recognition - No need of close-up - Designed in a variety of colors and shapes - Branding, campaigns, events, *etc*. - Print, outdoor ad, TV, *etc*.
QR Code	- Pattern recognition - Focusing required for recognition - Close-up - Composed of black-and-white strips and cells - Limited expression of colors and designs - Mobile advertising, distribution, *etc*. - Low recognition rate in case of code loss

Color code is high in recognition rate and recognition speed and can be provided in various types of content data such as video, website, and image. Color code is a code based on colors and generated by combination of a variety of colors, beyond the limits of 2D code expressed only in black and white. Color code allows various expressions since it can be generated in any printable material such as paper, glass or the like and also generated by any methods that can be expressed with colors including direct painting. The main advantage of the color code is that it can maximize advertising, communication and promotion effects since it uses different colors and has better visibility than existing smart codes.

While the QR code aims to provide only simple information, color code is more efficient than the QR code in the marketing aspects since it is made in the form of matrix using a variety of colors and uses various type of information including video, images, music, text, *etc*. In addition, users can make an easy access to the color code because it can be implemented through a variety of media that they encounter in their daily lives. It

can be created as company log *etc*. and actually more and more companies use the color code to make their company logo and in marketing.

Figure 8. Color Code Embodied in Various Media

Figure 9. Color code Embodied in Various Media

The pictures below show a case that color code is used in the Lotte Department Store. The billboard hanging on the wall of the department store was created by using color code, allowing users to move on to event pages by scanning the code. Its basic function is the same as that of QR code, but the images created by color code have a direct promotion effect to the outside. Color code can be utilized in this way since it can be recognized at a distance by smart phone even when produced in a large scale. If it is created by QR code, it may be impossible to hang such big work on the billboard in front of the department store due to limitations of colors, white and black, in terms of design as well as technical constraints of recognition at a distance. Color code itself can be used as logo or symbol and produced as advertising posters. Therefore, compared to QR code, it can be better utilized for marketing in businesses or institutions.

Figure 10. Color Code for the Advertisement of Department Store

Figure 11. Smart Device Screens Implemented Through Color Code Scanning

4. Use of Color Code for Revitalization of Local Characters

As mentioned above, color code that has complemented the design shortcomings of the existing QR code is already actively utilized as a marketing tool of businesses. The biggest reason that local governments are developing local characters is to create and promote local image via characters. This is consistent with the reason of the businesses to create a corporate logo using color code. Color code can be easily applied to local characters since they have been developed as a single image. Based on the existing character image, color code can be used to develop a new design reflecting each location, situation, and intention of planning for a variety of purposes.

Figure 12. Color Code and Haechi Character Designs

The pictures above show the color code images created based on the logo of a Chinese department store and the images of Girls' Generation and the pictures below are a variety of character images created by Seoul based on Haechi, the character of Seoul. Seoul has designed a total of 118 characters to meet various purposes. If color code is applied to create character designs based on the developed images in consideration of intended uses, targets and destinations, it will be possible to provide a lot more information to users. It is possible to create color code images by adding stories to the existing images in order to provide information that was used to be offered by the existing QR.

Figure 13. Haechi Characters Designed for Various Purposes

The figure above shows a part of 118 kinds of Haechi characters designed by Seoul. The characters were designed to express a variety of topics, based on the basic Haechi character. The developed image itself can be used as a color code.

Figure 14. Taxis in Seoul with Haechi

Figure 15. Haechi Characters Designed Based on Taxi and Hanbok

Seoul has been operating 'Haechi Taxi' that was designed based on Haechi character, by adding symbolism to taxis as in the case of Yellow Cab of New York or Black Cab of London. This case means that Seoul created the icon of the city by using its unique character Haechi to increase brand value of the city as in the cases of foreign cities applying unique designs in their taxis to create an icon of the city.

Among the existing 118 images produced by Seoul, some images already have been applied to taxis. The main reason to produce local characters is to promote the region by creating local images. Seoul is a representative city of Korea where a large number of foreigners visit every year. If color code is applied to Haechi taxi character images to provide the information about Seoul taxis to foreigners, users will more easily get information that has been provided by the existing QR code or guide leaflet. This will be a good example to take advantage of Haechi character in more diverse forms.

Color code applied character designs can increase promotion effects by providing local information according to situations and purposes: Haechi character dressed in Hanbok to describe the history of our country, Haechi character riding the subway to offer subway information, *etc*.

For example, Goyang city of Gyeonggi Province created its character based on the image of cat that has similar sound to the name of city. They call the cute cat character "Goyang goyangi" and actively use it as an official character that represents the city in the SNS or local fairs and festivals.

Figure 16. Goyang Goyangi, the Character of Goyang City

Figure 17. Taxi Design based on Goyang Goyangi

Goyang city designed its taxi image based on the cat character in 2015 and have provided taxi reservation service via mobile application of the same image. The figure above is the main image of the mobile application using the cat character image. If color code is applied to the picture above, the functions of the application can also be provided as a Web service at the same time. Bucheon city created a character called 'Bucheon hands up' similar in sound to 'Put your hands up'. The character has hip-hop and sporty styles and nicknames of 'Sseop-i' and 'Sseophyeong'. The city actively uses it in the festivals held in Bucheon. In the case of Bucheon, the character has been created as various emoticons especially for SNS marketing: emoticons to provide restaurant, lodging, and traffic information. Color code can be applied to each of the existing emoticons. In this case, it will be possible to provide only selective information to users among the comprehensive information that has been provided in leaflets, brochures, or mobile applications.

Figure 18. Character Emoticons of Bucheon city, Gyeonggi-do

Color code can complement the disadvantages in design of QR code while providing the information offered by QR code. Tourist information services utilizing QR code are currently used in a variety of ways across the country. QR code is, however, not suitable for these days when design is important. Though QR code has been widely used, especially in its early days, due to relatively high convenience compared to bar code, its utilization is gradually falling due to problems such as close-up and low recognition.

Figure 19. Tourist Information provided Through QR Code

Color code has an advantage to enable visual design that could not be obtained by the existing smart code. With the beginning of local government system, local governments have been interested in maintaining local public infrastructure and fostering public design. Local public design is an important means to add beauty to appearance, improve the comfort and satisfaction of local life, increase the affection and pride of the region where they live, activate local economy, and attract outside tourists. Building an image representing local community by setting a clear local symbol is an essential part of public design. Both at home and abroad, it is easy to find examples to discover and characterize local specialties, historical figures, or cultural contents for public design.

Jung-gu of Busan has also created and utilized a character design based on Jagalchi Market. The photo above shows a pavement constructed in Jung-gu, Busan, which is painted with character image symbolizing Jagalchi Market. If this public design character image is realized as a color code and placed all over the city center to provide information

about Jagalchi Market, it will improve urban landscape as well as provide information. If more diverse character designs are created with color code and placed all over the roads to provide information that have been offered by existing smart code, it will be a good example to take advantage of local characters and enhance local landscape at the same time.

Figure 20. Public Design Utilizing Local Characters (Jung-Gu, Busan)

Figure 21. Public Design Utilizing Local Characters (Sumoto, Hyogo In Japan)

7. Conclusion

Each local government is seeking a local development strategy in its own way, focusing on the tourism industry. They began to recognize the importance of characters as a means of promoting local images and are struggling to find local revitalization strategies by using the characters. In this regard, local character is the most effective and persuasive visual way in terms of both intention and meaning. In order to be used as an active medium of local development component, local characters should be created as a symbol that anyone can accept without resistance, based on common features of the reason.

Since Korea has so many diverse cultural heritages in each province, it will be possible to utilize local characters in many ways only if they are developed in a friendly manner and promoted well. Further, the development of good characters can be a representative method for promotion in local, national, and international

levels. Local character image itself may be used as a color code. While QR code that has been used in museums and tourist sites has a short recognition range and limited design elements, color code can make up for the weak points of QR code.

If local characters that have been developed and used in local levels are created as color code on the basis of character image considering intended uses, targets and places, a lot more information will be available. In addition, local characters can be used in many ways through public design. If the characters are made into color code, the use itself of the character will be diversified. In order for a character to be recognized as a symbol of a region, the character needs to be widely used in many ways and places and, in this regard, the color code is considered to be the most appropriate method.

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