Research Article

Effects of Storytelling in Local Visual Culture Infrastructure on Customer Satisfaction: The Mediating Effects of Brand Equity

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Abstract: Focusing on brand equity, this study explored the impact of storytelling, a variable that influences local visual culture infrastructure, on customer satisfaction. Data for quantitative study were collected from four different cases including small-sized cinemas and public media centers. The collected data were analyzed using descriptive statistics, exploratory factor analysis, and structural equation modeling to identify causal relationships between variables. Through theoretical consideration, storytelling was extracted as the significant influencing variable on customer satisfaction in local visual culture infrastructure. This study found that the effects of storytelling are mediated by brand equity. Going forward, further research needs to be conducted to explore diversified variables influencing customer satisfaction in local visual culture infrastructure.

 $\textbf{Keywords:} \ Local \ visual \ culture, film \ industry, \ storytelling, \ brand \ equity, \ customer \ satisfaction$

1. Introduction

Realizing the emerging importance of the evolution of the film industry in a country's economic and cultural development, countries around the world are pursuing relevant policies and legal foundations to achieve competitive advantages in the film industry on a global scale. (Park, I. Y. 2003) Recently, the government of South Korea amended a relevant law, the Promotion of the Motion Pictures and Film Products Act, in order to reinforce policy and establish a legal basis in support of the local film industry. Despite this effort, a major hindrance to the development of the film industry in Korea is exclusive concentration of the nation's film industry infrastructure in one geographic region—the metropolitan area, including Seoul. This concentration of industry infrastructure serves to limit the development of local culture in the context of film. To address this problem, local governments in Korea have put forth efforts to open various community-based visual culture infrastructure, such as small cinemas and local film media centers, and to extend their operation. (Jung & Chung 2017) In the future, it will be necessary to form positive brand equity for these small-sized facets of infrastructure through storytelling-based strategies in their programs, and to put forth greater efforts to enhance the satisfaction of customers as well as to grow the infrastructure for local visual culture. Discussions conducted so far in academic fields have leaned toward the validity of emerging initiatives in local visual culture infrastructure.

In this context, to promote the development of local visual culture, this study aims to introduce representation technology using storytelling via local visual culture infrastructure, to establish brand equity, and to explore how the relationship between technology and brand equity impacts customer satisfaction. This study stands to provide significant implications in suggesting a desirable direction to achieve sustainable development in the Korean local film industry by revealing causal relationships between important factors influencing local visual culture infrastructure.

2. Theoretical background

2.1. Emerging initiatives in regional film industry infrastructure

There are several important facets of infrastructure being operated in local regions to promote local visual culture, including small cinemas, independent film theaters, public media centers, and film commissions. These organizations provide opportunities to local people to enjoy visual culture as an aspect of their overall wellbeing. (Jung & Chung 2017)

As a new media environment is being established, a range of media recipients is being expanded, and new demand for media utilization capability is being created along with the arrival of an emerging film era. In fact, a total of 41 public media centers are being launched and operated across Korea. Public media centers provide open programs to all people without discrimination. The representative programs are focused on media education, cinema operation, media activity support for neglected classes of people, and projects linked with facilities for local culture (e.g., media culture projects linked with local small libraries, study rooms, and youth facilities).

As theaters and audiences are densely concentrated in metropolitan areas only, local autonomous bodies have turned to relatively neglected areas (i.e., neglected from a cultural perspective, in places where cinemas have traditionally not existed). To reduce this cultural gap between different regions, the central government and local governments have jointly carried out projects in which small-sized cinemas have been built, equipped with about 100 seats and two screens, in local areas where no decent cinema facilities have been accessible to local residents. Apart from this lack of existing facilities, independent films are rarely produced because opportunities are scarce for independent films (especially films produced in local regions) to be shown in theaters. This is a main hindrance in construction of a film ecosystem (a system of creation that can be described as involving cycles of creation-invention-distribution-audience-expansion), which is currently being highlighted as an important factor in Korea. Accordingly, the importance of establishing cinemas dedicated to showing independent films in local regions is emerging. It is believed that these cinemas may play a mediating role in an effective circulation structure for independent films involving the production, distribution, and showing of independent films.

This study investigates significant causal relationships wherein the promotion of visual culture via local infrastructure influences customer satisfaction by identifying and visiting four representative places (built to provide cultural diversity and opportunities for cultural experiences) including small cinemas and/or independent film theaters and public media centers.

2.2. Relationships between storytelling, brand equity, and customer satisfaction in local visual culture infrastructure

Storytelling is a compound word comprised of the root words "story" and "telling". The word describes the process of telling a story to others, and thereby sharing a common experience with others via the emotions evoked. Furthermore, storytelling is a way of communicating funny and interesting narratives to customers in a persuasive way. (Jung, J. E. et al., 2014) In order to be effective, the programing of local visual culture infrastructure must be based on regional characteristics and must deliver a special meaning to customers, thereby implying that any programs provided by local infrastructure ought to include attributes of storytelling. (Shin, H. S. 2012)

Previous research about the impact of storytelling on customer satisfaction has been conducted. (Lee & Chong 2009, Son & Kim 2011) As an effective way of communicating about the external world, storytelling is used to make a lasting impression on the minds of customers and to enhance customer satisfaction with the infrastructure of their cultural experiences. In a previous study, the influencing relationship between storytelling and brand equity was explored. The study found that storytelling had significant influence on brand equity because storytelling and branding start at the same point for listeners/customers, which is emotion and value. (Jung, J. E. 2015) Aside from that, because the meaning delivered to customers via brand is critically important, other studies have also been conducted to point out that brand equity is a precedent factor of customer satisfactio. (Keller, K. L. 1993, Pappu, R. et al., 2005) To investigate which relationships the major variable of storytelling has with customer satisfaction and brand equity, this study establishes four hypotheses as follows.

- H1: Storytelling provided by local visual culture infrastructure will significantly positively influence brand equity for local visual culture infrastructure.
- H2: Storytelling provided by local visual culture infrastructure will significantly positively influence customer satisfaction.
- H3: Brand equity of local visual culture infrastructure will significantly positively influence customer satisfaction.
- H4: Brand equity of local visual culture infrastructure will have a mediating role between storytelling and customer satisfaction for local visual culture infrastructure.

3. Results and discussion

3.1. Material and methods

The research survey was conducted at four different places including two small cinemas (Daegu 55 Cinema and Seocheon Small Cinema) and two public media centers (Jeonju Public Media Center and Seocheon Public Media Center). The total number of valid responses was 167. Data were analyzed using IBM SPSS and AMOS 21 statistical software programs. Eleven measured variables comprising each scale were used to examine whether the latent variables were consistently constructed by means of reliability analysis and confirmatory factor analysis models. Additionally, structural equation modeling (SEM) designed for testing the causal influence of latent variables corresponding to storytelling on brand equity and customer satisfaction was applied in order to examine whether our hypotheses (describing the relationships between variables) were accepted or rejected.

3.2. Reliability analysis and confirmatory factor analysis

As a basic procedure to test whether each measurement item constructing the latent variables consistently constructed the measurement scale, reliability analysis was performed and Cronbach's alpha values were derived. As shown in the reliability analysis results in Table 1, the values of measurement items constructing the latent variables were calculated between 0.8 and 0.9, indicating that the measured variables acceptably constructed homogeneous and consistent scales (with 0.7 or above being the general threshold for acceptability).

All the factor loading values for each measured variable had statistically high levels of significance (within 0.1% without regard to the model). Most of the t-values were also high, with values above 8. In addition, average variance extracted (AVE) values—which can be explained by latent variables—and the internal construct reliability (ICR), which indicates consistency levels of the observed variables consisting of latent variables were above 0.8. Based on these results, construct validity was confirmed.

The model used for this study showed overall acceptable fitness insofar as most of the values indicating the

Novelty Popularity	.859		<u> </u>			
		-	.738	.808	.587	.807
	.682	8.658	.465			
Locality	.746	9.439	.557			
Worth an experience	.831	-	.691	.938	.750	.936
Special image	.831	13.135	.689			
Meets the demand	.871	14.120	.753			
Good gain	.919	15.599	.848			
Good choice	.877	14.387	.771			
Satisfied	.916	-	.839	.964	.899	.963
Recommended	.970	24.608	.941			
Worth a try	.958	23.615	.918			
N C	Special image Meets the demand Good gain Good choice Satisfied	Worth an .831 Experience Special image .831 Meets the .871 Idemand .919 Good gain .919 Good choice .877 Satisfied .916 Recommended .970 Worth a try .958	Worth an .831	Worth an experience	Worth an .831691 .938 .839 .964 .970 .958 .23.615 .918	Worth an .831691 .938 .750 Special image .831 13.135 .689 Meets the demand .871 14.120 .753 Good gain .919 15.599 .848 Good choice .877 14.387 .771 Satisfied .916839 .964 .899 Recommended .970 24.608 .941 Worth a try .958 23.615 .918

model's goodness of fit and the chi-squared values demonstrated an acceptable degree of fitness (GFI, CFI, and TLI were all above 0.9, SRMR was below 0.05, and RMSEA was below 0.1).

Table.1. Confirmatory factor analysis

x^2 =103.033, dt=41, GFI=.901, CFI=.964, TLI=.952, SRMR=.043, RMSEA=.095

3.3. Testing for causal relationships between variables (SEM)

The structural equation modeling (SEM) research model, which was applied to test the causal relationships between latent variables, is presented in Figure 1.

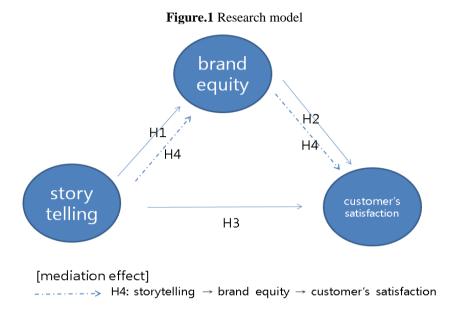


Table 2 indicates that the variable of storytelling significantly positively influences brand equity (H1 is accepted), while storytelling has no significant influence on customer satisfaction (H2 is rejected). On the other hand, brand equity significantly positively influences customer satisfaction (H3 is accepted).

	Estimated value (standard error)	Standardization factor	T-value
Storytelling → Brand equity	.484 (.065)	.656	7.468***
Storytelling → Customer satisfaction	056 (.080)	057	706
Brand equity → Customer satisfaction	1.112 (.122)	.834	9.115***

Table.2. Estimated (direct) path coefficient values

3.4. Testing for mediating effects

Table 3 presents the results of estimating the mediating effects of brand equity on the relationship between exogenous variables and customer satisfaction. The results presented in this table indicate that brand equity has significantly positive mediating effects on the relationship between storytelling and customer satisfaction within 1% (H4 is accepted). Furthermore, it was found that brand equity has fully mediating effects on the relationship between storytelling and customer satisfaction insofar as the variable of storytelling has no directly significant effects on customer satisfaction.

Estimated value Standardization T-value (standard error) factor

Table.3. Mediating effects estimation

.54/	Full mediation

4.Acknowledgment

Cities around the world are making an effort to develop regions using cultural industry, power of the next generation. Especially, visual culture is being competitively promoted in Korea as a strategic industry because it is in contact with residents the most. As policies of Korea for strengthening local culture and enjoyment expanded recently, visual culture is being recognized as a required field for realizing the matter. Nonetheless, there are insufficient related studies in the academic world. Therefore, this study prepared a rating scale for the storytelling of local visual cultural infrastructure and identified an influencing relationship on customer satisfaction by verifying the mediating effect of brand equity. (Jung & Chung 2018; Kim & Park 2019)

Previous research has found that storytelling has directly significant effects on customer satisfaction. Moreover, this study finds that storytelling has significant effects on customer satisfaction through the full mediation of brand equity. This finding can be understood insofar as local visual culture infrastructure stands to enhance customer satisfaction by forming brand equity through programs that include storytelling, which resonates with a region's unique characteristics. Going forward, further research needs to be conducted to explore diversified variables influencing customer satisfaction in local visual culture infrastructure.

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