

AHP기법을 통한 다큐멘터리 영화 성공요인 중요도 분석

A Priority of Documentary Films' Success Factor

:AHP Analysis

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요약

한국다큐멘터리영화가 2010년대 접어들면서 황금기를 맞고 있는 지금, 어느 때보다도 다큐멘터리영화의 성공에 대한 관심이 집중되고 있다. 본 연구는 이에 부응하여 처음으로 다큐멘터리영화의 성공요인에 관한 연구를 진행했다. 리트만(Litman)의 영화홍행요인 세 가지 카테고리인 창조적 영역, 배급유통의 영역, 마케팅 영역에 맞게, 한국다큐멘터리영화의 사례를 집목하여, 전문가의 의견을 통한 검증작업을 거쳐 다큐멘터리영화의 12개의 성공요인을 도출했다. 또한 AHP분석기법을 적용, 다큐멘터리영화의 성공요인의 중요도를 살펴보았는데, 가장 중요한 성공요인은 창조적 영역의 영화자체가 가지는 완성도로 나타났고, 보편적 소재의 다큐멘터리는 배급, 마케팅의 요인을, 정치사회적 소재의 다큐멘터리는 전체적으로 정부의 지원과 인프라 구축의 요인을 중요하게 평가했다. 온라인을 통한 참여관객의 현상을, 제작군은 높게, 배급, 마케팅군은 상대적으로 낮게 평가하는 인식의 차이를 보였다. 이러한 성공요인과 우선순위는 다큐멘터리영화 관련한 여러 분야에서 기초 자료로 활용될 것이며, 다큐멘터리 영화 실무자나 정책입안자, 그리고 연구자들에게 중요한 시사점을 줄 수 있다.

■ 중심어 : | 다큐멘터리영화 | 흥행요인 | 계층분석기법(AHP) | 영화산업 |

Abstract

A golden age for Korean documentary films has begun in the 2010s. At present, the success of documentary film is attracting interest than any time in history. To meet the timely demand, the present study conducted research on success factors of documentary films for the first time. This study adopted the three categories of Litman's film success factors (creative domain, distribution domain, and marketing domain) and integrated to the cases of Korean documentary films to extract 12 success factors of documentary films through experts' validation process. Moreover, this study applied AHP method and examined the relative importance of success factors of documentary films. The result was as follows. The significant success factors mostly were found within creative domain. Documentaries that feature common themes rated the distribution/marketing factors highly whereas documentaries that cover socio-political themes rated highly the government's funding and infrastructure building. With regard to the online phenomenon of participating viewer, there was a gap in perception: the production field rated it high while the distribution/marketing field rated it relatively low. These success factors and priority will be used as baseline data in diverse fields related to documentary films, and provide significant implications to documentary film staff, policy makers, and researchers.

■ keyword : | Documentary Film | Success Factors | Analytic Hierarchy Process (AHP) | Film Industry |

I. Introduction

Korean documentary films have entered the golden age since the 2010s. <My Love, Don't Cross that River>, released in 2014, attracted 4,800,000 viewers and ranked 9th among the Korean box office films in 2014. <Our President>, released in May 2017, continuously showed the popularity of documentary film with the record of almost 2,000,000 viewers[1][2]. These two films were distributed by a mega distribution company named CGV ARTHOUSE and premiered wide-release on 186 and 580 screens respectively, recording the unheard of number of viewers and ticket sales in the history of documentary films[1][2]. In addition, independent documentary films also exerted a significant social impact upon their release[3]. <Two Doors [2012]>, which covered the tragic death of Yongsan evictees in 2007 recorded over 70,000 viewers and resulted in the proposal of a pertinent bill in the political circle[2]. <Spy Nation [2014]> recorded the 140,000 viewers, and <Criminal Conspiracy [2017]>, which is still being shown in theaters, is reaching 300,000 viewers[1]. These films demonstrate the success of documentary films in digital age that utilizes the online funding, simultaneous playing features and a new form of distribution which combined the online and off-line.

While the success of the documentary films is gaining people's interest than any time in history, studies about the success of documentary films are insufficient. With regard to general commercial film's box office success, studies were conducted primarily about the factors that affected the performance of box office success in the U.S. in the 1980s[4]. That was when the expectation of industrial performance of films started to grow. The studies examined individual factors of box office success by using regression analysis in most cases. As the interest in

film industry grew, researchers conducted studies on factors of Korean films' box office success, not only in the genre of commercial films but also in other genres including animated films, low-budget films, and art films[5-8]. Those studies utilized regression analysis of verified factors from previous studies and added factors based on the characteristics of each film genre. Nevertheless, there has not been any study on factors of documentary film's box office success.

The present study explored the success factors of documentary films. This study started with a premise that the success factors of documentary films must be different from success factors of general commercial films because each film genre has its unique characteristics. After extracting the factors that affect the success of documentary films, AHP(Analytic Hierarchy Process) method was used to determine each factor's importance and its priority. AHP method can reflect the characteristics of documentary films that have multiple factors of success as opposed to a single factor, which is the number of viewers; it can also represent the experience and knowledge of experts in the analysis process. This study's finding on success factors and priority will be used as baseline data in various fields related to documentary films and provide significant implications to documentary film staff, policy makers, and researchers. This study will lay a foundation for exploratory research that is more in-depth and well-developed.

II. Literature review of studies on film's box office success

B.R Litman is the most well-known scholar who studied the success factors of films[9]. He analyzed

155 films released in the 1970s. According to his analysis, significant success factors included production cost, the size of the releasing screen, the capacity of distribution company, Academy Award winner, and genre[3]. In a follow-up study, Litman and Kohl[10] also found that film critics' overall rating and the level of competition in the market exert greater influence on the box office success than any other factors. Later, other researchers added new success factors: Wyatt[11] added release period; Sochay[12] added critic's comment, Academy Award winner status, and the level of competition. Prag and Casavant[13] conducted a research using the data on actual marketing cost and demonstrated that marketing cost exerts the greatest influence on film's box office success.

Studies done in Korea are as follows. H. J. Kim[14]'s study verified that the influence of the film director and main actors has impact on the box office success. In his follow-up study, he analyzed that the success of a film is significantly affected by the award list and the size of the releasing screen[15]. H. H. Shin[16] reported the impact of distribution company's capacity; H. S. Yoo[17] reported the impact of production company's capacity; S. Kim[18] reported that the initial number of releasing screens and the marketing cost influence the film's success rate. There were also other study findings: professional criticism and film festival awards were reported to influence the number of viewers, and film-related reports were found to impact the box office performance[19][20]. Since the late 2000s, the correlation of film success with general viewers' online comments was examined. Studies by J. M. Koh[21] as well as S. H. Park and W. K. Chung[22] found that general viewers' online evaluation has impact on the film's success. Later, S. H. Park and H. J. Song's study[23] showed that the frequency of

sharing information on the internet via word of mouth has a significant impact on film's success. Going viral through SNS was found to exert a strong effect on procuring screens in the distribution phase after film production[24].

S. Y. Park[5] analyzed the success factors of animation films that were released in Korea, and identified significant factors as follows: main characters, reviews, viewer's comment, the number of viewer's comment, and history of winning awards. S. Y. Kim[8] conducted a comparative analysis on commercial films and art films in terms of film's success factors, and presented them as follows: director's reputation, various screening ratings, experts' review, and production country. S. A. Kwak[7] performed an analysis on the success factors of low-budget independent films. Whereas the support for release did not affect the number of premiering theaters, it was found to exert a positive impact on the box office success. Because of government's funding, they can utilize the budget for promoting and marketing in comparison to the films that do not get any funding, which ultimately leads to the formation of a positive correlation with the number of viewers.

III. Research model: the process of extracting the success factors of documentary films

1. Category of documentary film success factors

In order to extract success factors of documentary films, it was necessary to determine the criteria to categorize. Litman[9] categorized various factors derived from the success factor analysis into three areas: creative domain, distribution domain, and

marketing domain. First of all, creative domain includes genre, star casting, director, budget size, and screening ratings. These factors are determinants of production stage such as film components and content, director and budget establishment[25]. The distribution domain includes the size and type of distribution company, release period, the number of screens, and distribution strategy. The marketing domain includes Academy Award nomination and winning, critic’s review, the scale of advertisement and promotion[4].

These categories were used as a frame of reference in extracting new factors in studies about Korean film’s success[26-28]. In particular, E. M. Kim[4] used this frame in establishing an empirical model by connecting these three domains and the characteristics of Korean films. S. Y. Park[5], in his study of animated film’s success factors, extracted and analyzed distinctive factors such as ‘characters’ in creative domain and ‘production country’ in distribution domain. We applied the above categories in extracting success factors of documentary films and building an empirical model.

Table 1. Documentary Film success factor with Description

Category	Description
Creative Domain	-Apply distinctive characteristics of documentary films that determine the work quality of a film. -Procure resources [human, material, and financial].
Distribution Domain	-Apply the distribution method used in the general commercial film industry -Procure the infrastructure and support from the government -Establish a detailed distribution strategy
Marketing Domain	-The impact of promotion and advertisement -Aspect of online communication with general viewers -Aspect of networking with viewers with strong interest in politics and society

2. Factor extraction and Delphi survey

The process of extracting categories for the success factors of documentary films took place in two stages. First, we selected <My Love, Don’t Cross that River> and <Two Doors>, which are two films on the top 10 Korean documentary film list in most recent 10 years and conducted a case study[3]. By integrating the case study findings and previous studies on film’s success factors, 13 empirical factors were extracted. Second, to examine the validity of the 13 factors, Delphi survey was conducted. Delphi survey is a survey method for elicit and aggregate the opinions and judgment of an expert group. A structured questionnaire survey is carried out by same participants at least two times, and each round of survey is presented to the entire group of participating experts[29]. A total of 6 experts participated in the Delphi survey: 3 experts in production field and 3 experts in distribution and marketing field. In the first Delphi survey, the participants were requested to mark their opinion on each factor with O/X and to describe the factors that need to be added. Based on the first round of survey, the second Delphi survey was conducted. The factors that 4 out of 6 experts agreed on were selected and 12 factors were determined in the hierarchial structure shown in [Fig. 2].

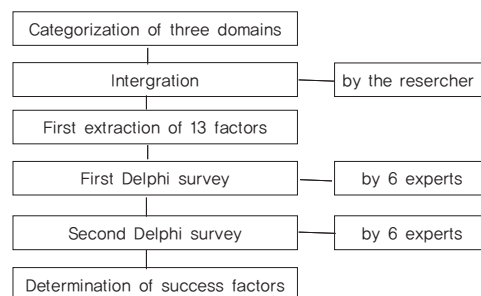


Fig. 1. Flow of extracting documentary film success factors

IV. Method

1. AHP and analytical procedure

I. H. Lee[30] raised the issue that regression analysis method cannot fully reflect the distinctive nature of different genres in analyzing the success

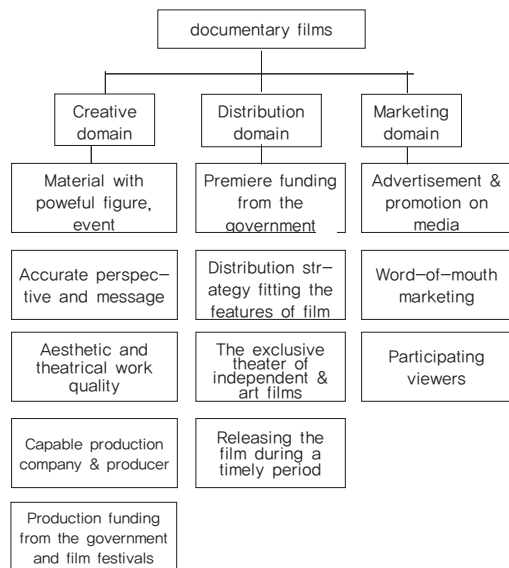


Fig. 2. Hierarchical structure model

factors of films. By contrast, the method of analytic hierarchy process [AHP], which was developed by Saaty in the early 1970s, can prioritize the inter-related factors in the decision-making process and quantify the importance among the factors via pair-wise comparison[31]. When making a decision regarding a difficult area to quantify, AHP method is easy to apply and it is designed to fit a mathematical model that determines the weight of success factor by allowing the decision-maker's experience and judgment to be structured, organized, and systemized[32]. The factors to be selected are paired and compared to measure the preference of decision-makers. In the present study, pairwise comparison was performed using a 5-point scale.

Lastly, the principal of Eigen vectors is used to estimate the relative weight of factors to be decided. At this time, if the participants of the survey are multiple experts, the geometric mean of their opinions is calculated and the value is used to measure the relative weight for analysis[33]. In AHP, the consistency ratio is defined as CR where $CR = CI/RI$. Saaty[32] has shown that a consistency ratio (CR) of 0.10 or less is acceptable to continue the AHP analysis. If the consistency ratio is greater than 0.10, it is necessary to revise the judgments to locate the cause of the inconsistency and correct it. To derive the relative importance and priority of 3 categories and 12 factors, pairwise comparison based on AHP questionnaire was performed.

2. Data collection

AHP survey was carried out among 26 experts using the questionnaire. We selected that conducted and aimed the performances of box office success in film industry. The 26 experts were selected evenly from production field and distribution and marketing field. Experts from the distribution and marketing field comprised the distributioners and marketers from 1 of independent professional distribution companies, 2 of small-to-medium size distribution companies, and 2 of large distribution companies that were randomized. Also experts from the production field comprised the directors and producers that recently worked with randomized companies. Reckoning on the possibility of differing opinions by documentary type, the participants were requested to specify the theme types they usually cover. AHP survey was conducted in June and July in 2017 through visits or emails. To improve the reliability of survey results and to encourage active participation and expression of their opinions, the participants were given a thorough pre-survey instruction on AHP

survey and an explanation of the research objective.

V. Analysis results

1. Profile of survey respondents

The profile of the 26 experts who responded to the AHP survey is shown in [Table 2]. By sex, the group comprised 53.8% female and 46.2% male respondents. By age, the respondents were evenly distributed: 23.1% in their 30s, 57.7% in their 40s, and 19.2% in their 50s. By job field, 38.5% of the respondents were directors; 15.4% were holding both positions as director and producer; and 11.5% were producers. In addition, 34.6% of the respondents were from the film industry in charge of the distribution and marketing of films. Due to the nature of Korean documentary film industry, a considerable number of directors were also producers. When categorizing the films based on the most commonly used documentary themes, the case of covering common themes such as humans and events and the case of covering socio-political themes that cause a strong social impact were 50% each.

Table 2. Profile of survey respondents

		Ca.	Fr.	%	Ca.			Fr.	%
	Male	12	46.2		Common themes		13	50.0	
	Female	14	53.8		Socio-political themes		13	50.0	
	Total	26	100.0		Total		26	100.0	
Age	31~40	6	23.1	Job field type	Production field	Director	10	38.5	
	41~50	15	57.7			Director/producer	4	15.4	
	51~60	5	19.2			Producer	3	11.5	
	Total	26	100.0		Distribution/Marketing field	Distributor/Marketer	9	34.6	
					Total		26	100.0	

*Ca.: Category, Fr.: Frequency

2. Relative importance among the factors

In the categories, the highest priority was given to

creative domain followed by distribution domain, and marketing domain. The most significant factor in creative domain was 'Material with powerful figure or event', followed by 'Accurate perspective and message'; 'Aesthetic and theatrical work quality'; 'Capable production company and producer'; and 'Production funding for from the government and film festivals'. In distribution domain, the most significant factor was 'The exclusive theater of independent and art films', followed by 'Distribution strategy fitting the features of the film'. In marketing domain, the most significant factor was 'Advertisement and promotion on media' followed by 'Word-of-mouth marketing' and 'Participating viewer'.

Table 3. All factors and weight synthesis

C,R (Consistency Ratio)=0.083

Ca.	Synthesis Weight	P	Factors	Local		Global	
				Weight	P	Weight	P
C,D	0.49118	1	Material	0.26078	1	0.12809	1
			Message	0.24905	2	0.12233	2
			Work quality	0.22023	3	0.10817	3
			Production & producer	0.13604	4	0.06682	9
			Production funding	0.1339	5	0.06577	10
D,D	0.26874	2	Release funding	0.19205	4	0.05161	12
			Exclusive theater	0.2893	1	0.07774	6
			Distribution strategy	0.27424	2	0.0737	7
			Timely period	0.24441	3	0.06568	11
M,D	0.24008	3	A & P on media	0.35281	1	0.0847	4
			Word-of-mouth	0.35168	2	0.08443	5
			Participating viewer	0.29551	3	0.07094	8

Of all factors, the top three priorities [Fig. 3] were in creative domain. They were all internal factors that determine the film's work quality as follows: 'Material with powerful figure or event', 'Accurate perspective and message', and 'Aesthetic and theatrical work quality'. The next two top priorities were distribution factors as follows: 'Advertisement and promotion on media' and 'Word-of-mouth marketing'.

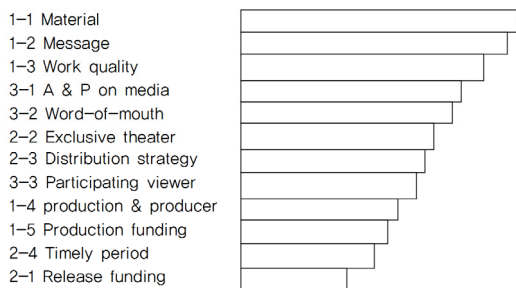


Fig. 3. Priority of all factors

3. Comparative analysis by theme type

A comparative analysis was performed on how the documentary film success factors were perceived in terms of importance by each group of experts: the film industry workers who mainly featured popular themes to communicate universal messages; and the film industry workers who mainly featured intense socio-political themes.

Table 4. Comparative Analysis between themes: Category

Category	Common Themes		Socio-political Themes	
	Relative Importance	Priority	Relative Importance	Priority
Creative Domain	0.42788	1	0.55350	1
Distribution Domain	0.30535	2	0.23344	2
Marketing Domain	0.26677	3	0.21306	3
Total	1.00	CR=0.089	1.00	CR=0.077

First of all, in the broad category, the both groups agreed that creative domain is the most important area.

In creative domain, both theme types showed the highest priority in 'Material with powerful figure or event' followed by 'Accurate perspective and message', and 'Aesthetic and theatrical work quality'. However, the two groups differed regarding the 4th important factor. The group that mainly featured

common themes picked 'Capable production company and producer' while the group that mainly featured socio-political themes picked 'Production funding for from the government and film festivals'.

Table 5. Comparative Analysis between themes: factors in creative domain

Creative Domain	C Themes		S,P Themes	
	R,I	P	R,I	P
Material with powerful figure or event	0.25896	1	0.26027	1
Accurate perspective and message	0.24259	2	0.25395	2
Aesthetic and theatrical work quality	0.23632	3	0.20391	3
Capable production company and producer	0.15108	4	0.12147	5
Production funding for from the government and film festivals	0.11106	5	0.1604	4
Total	1.00	CR=0.089	1.00	CR=0.077

* R,I= Relative Importance

In distribution domain, the two groups showed a stark difference. The most significant factor selected by common theme group was 'Releasing the film during a timely period', followed by 'Distribution strategy fitting the features of the film'. By contrast, the most significant factor selected by socio-political theme group was 'The exclusive theater of independent and art films' followed by 'Release funding from the government'.

Table 6. Comparative Analysis between themes: factors in distribution domain

Distribution Domain	C Themes		S,P Themes	
	R,I	P	R,I	P
Release funding from the government	0.0925	4	0.2330	2
The exclusive theater of independent and art films	0.13911	3	0.3240	1
Distribution strategy fitting the features of the film	0.25478	2	0.2252	3
Releasing the film during a timely period	0.51362	1	0.2177	4
Total	1.00	CR=0.089	1.00	CR=0.077

* R,I= Relative Importance

The two groups also showed a difference in marketing domain. The most significant factor selected by common theme group was ‘Word-of-mouth marketing’ followed by ‘Participating viewer’, and ‘Advertisement and promotion on media’. By contrast, the most significant factor selected by socio-political theme group was ‘Advertisement and promotion on media’.

Table 7. Comparative Analysis between themes: factors in marketing domain

Marketing Domain	C Themes		S.P Themes	
	R.I	P	R.I	P
Advertisement and promotion on media	0,29026	3	0,41941	1
Word-of-mouth marketing	0,41754	1	0,28863	3
Participating viewer	0,2922	2	0,29195	2
Total	1,00	CR=0,089	1,00	CR=0,077

* R.I= Relative Importance

When comparing the overall importance of factors by theme type, the most significant factor for common theme group was ‘Releasing the film during a timely period’ followed by ‘Word-of-mouth marketing’. By contrast, the most significant factor for socio-political theme group was ‘Material with powerful figure or event’ followed by ‘Accurate perspective and message’.

Table 8. Comparative Analysis between themes: all factors

p	Common Themes	Socio-political Themes
1	Timeliness	Material
2	Word-of-mouth	Message
3	Material	Work quality
4	Message	A & P on media
5	Work quality	Production funding
6	Participating viewer	Exclusive theater
7	Distribution strategy	Production/producer
8	A & P on media	Participating viewer
9	Production/producer	Word-of-mouth marketing
10	Production funding	Release funding
11	Exclusive theater	Distribution strategy
12	Release funding	Timeliness

4. Comparative analysis by job field

As mentioned above, the results about production field and distribution/marketing field were compared and analyzed. First of all, as shown in [Table 9], the most significant domain for both fields was found to be creative domain.

Table 9. Comparative Analysis between fields: Category

Category	Production Field		Distribution /Marketing Field	
	R.I	Priority	R.I	Priority
Creative Domain	0,49119	1	0,52621	1
Distribution Domain	0,26874	2	0,24852	2
Marketing Domain	0,24008	3	0,22528	3
Total	1,00	CR=0,093	1,00	CR=0,083

* R.I= Relative Importance

The factors in each job field were compared as follows. First, in the creative domain, both job field respondents gave the top three priorities to ‘Material with powerful figure or event’, ‘Accurate perspective and message’, and ‘Aesthetic and theatrical work quality’. However, with regard to the 4th and 5th priorities, the two job fields differed. The production field respondents rated ‘Capable production company and producer’ more highly than ‘Production funding for from the government and film festivals’. On the contrary, the distribution/ marketing field respondents rated ‘Production funding for from the government and film festivals’ more highly than ‘Capable production company and producer’.

In distribution domain, the most significant factor in production field was ‘The exclusive theater of independent and art films’ followed by ‘Distribution strategy fitting the features of the film’. The most significant factor in distribution/marketing field was ‘Distribution strategy fitting the features of the film’ followed by ‘The exclusive theater of independent and art films’.

Table 10. Comparative Analysis between fields: factors in creative domain

Creative Domain	P.Field		D/M. Field	
	R.I	P	R.I	P
Material with powerful figure or event	0,260781	1	0,262795	1
Accurate perspective and message	0,24905	2	0,26036	2
Aesthetic and theatrical work quality	0,220227	3	0,187066	3
Capable production company and producer	0,136039	4	0,141006	5
Production funding for from the government and film festivals	0,133904	5	0,148773	4
Total	1,00	CR=0,093	1,00	CR=0,083

* R,I= Relative Importance

Table 11. Comparative Analysis between fields: factors in distribution domain

Distribution Domain	P.Field		D/M. Field	
	R.I	P	R.I	P
Release funding from the government	0,192053	4	0,235242	3
The exclusive theater of independent and art films	0,289295	1	0,255332	2
Distribution strategy fitting the features of the film	0,274242	2	0,282394	1
Releasing the film during a timely period	0,244409	3	0,227032	4
Total	1,00	CR=0,093	1,00	CR=0,083

* R,I= Relative Importance

In marketing domain, the production field respondents selected 'Participating viewer' as the most significant factor, followed by 'Word-of-mouth marketing' and 'Advertisement and promotion on media'. The distribution/ marketing field respondents selected 'Word-of-mouth marketing' as the most significant factor, followed by 'Participating viewer', and 'Advertisement and promotion on media'. The distribution/marketing respondents field rated 'Word-of-mouth marketing' to be far significant in comparison to other factors while the perceived importance of 'Participating viewer' was lower than that of production field respondents.

Table 12. Comparative Analysis between fields: factors in marketing domain

Marketing Domain	P.Field		D/M. Field	
	R.I	P	R.I	P
Advertisement and promotion on media	0,289141	3	0,282988	3
Word-of-mouth marketing	0,327565	2	0,411311	1
Participating viewer	0,383294	1	0,305701	2
Total	1,00	CR=0,093	1,00	CR=0,083

* R,I= Relative Importance

Table 13. Comparative Analysis between fields: all factors

p	Production Field	Distribution /Marketing Field
1	Material	Material
2	Message	Message
3	Work quality	Work quality
4	Participating viewer	Word-of-mouth marketing
5	Word-of-mouth	Production funding
6	Exclusive theater	Production/producer
7	Distribution strategy	Distribution strategy
8	A & P on media	Participating viewer
9	Production/producer	A & P on media
10	Production funding	Exclusive theater
11	Timeliness	Release funding
12	Release funding	Timeliness

The comparative analysis of overall priority is as follows. Both the production field and the distribution/ marketing field respondents rated the following factors as the top three priorities: 'Material with powerful figure or event', and 'Accurate perspective and message', and 'Aesthetic and theatrical work quality'. As for the 4th priority, the production field respondents selected 'Participating viewer' while distribution/ marketing field respondents selected 'Word-of-mouth marketing'. In addition, as the 5th and 6th priority, the distribution / marketing field respondents selected 'Production funding for from the government and film festivals' and 'Capable production company and producer' while the production field respondents selected 'Word-of-mouth marketing' and 'The exclusive theater of independent

and art films'. While the remaining factors of the creative domain were rated highly by the distribution/marketing field respondents, the factors of marketing domain and factors of distribution domain were rated highly by the production field respondents.

VI. Conclusion and implications

The present study aimed to examine the relative importance of success factors of documentary films by applying AHP method among the professionals in the documentary film industry. In addition, this study analyzed documentary films by categorizing the survey participants into common theme group and socio-political theme group. Furthermore, this study investigated the difference in perceived success factors between the film production group and the film distribution and marketing group. The finding of this study can be summarized as follows.

First, of all domains, the creative domain was found to be the most significant domain with an overwhelming difference from the other two domains. The factors of distribution and marketing domain, rather than the factors of creative domain, were identified to be the determinant of the box office success for general commercial films as the film industry grows in size and the competition becomes fierce. As for documentary films, however, the result was the opposite. It proves the fact that it is crucial for documentary films to have distinctiveness and uniqueness of the genre because they have to compete with general commercial films with a low budget. Second, in the comparative analysis by theme type, it was found that the most significant success factors of common theme documentaries are 'Releasing the film during a timely period' and 'Word-of-mouth marketing'. This phenomenon shows

the fact that the factors of distribution and marketing were rated highly as for general commercial films. This proves that documentary films with common themes are pursuing the pattern of general commercial films. As for documentaries that feature socio-political themes, the factors of distribution domain such as 'The exclusive theater' and 'Release funding from the government' were rated to be the most significant. In overall priority, these factors were rated relatively higher than the common theme documentaries; this can be interpreted that the significant success factor of socio-political documentaries lies in government funding and building infrastructure initiated by the government. Third, in the comparative analysis by job field, it was found that the production field respondents generally attributed the success factor of documentary films to the distribution/marketing domain while the distribution/marketing field respondents attributed the success of a film to the film content and the infrastructure including the government funding. In particular, what is notable about all priorities is that the production field respondents rated 'Participating viewer' as the 4th priority where as the distribution/marketing field respondents rated 'Participating viewer' as the 8th priority. This demonstrated a huge gap between two groups' perception of 'Participating viewer'

While conducting the present study, we were convinced that documentary films have entered the film market system and that building competitive power is the inevitable direction to create a virtuous cycle and attract many viewers. Meanwhile, the observation of the reality that documentary film industry still has to depend on the government's funding and infrastructure led to the belief that the time has come to contemplate systematic solutions within the film market as well as the strategy and

method that are differentiated from the pre-existing commercial system, as suitable alternatives for documentary films[34].

From this point of view, practical implications can be presented as follows. First, documentary films must have distinctive work quality that matches the genre. This will contribute to the production of documentary films that are creative and high quality. Second, analyzing the phenomenon on 'Participating viewer' at multiple angles can provide exclusive alternatives for documentary films. 'Participating viewer' is manifested in the form of integration of individuals and groups wishing to participate in the current social movement into the expandability, convenience, and efficiency of online. This is surfacing as a very significant alternative throughout the funding and distribution issues. Professional documentary film distribution companies as key participants can create a virtuous cycle that systemizes, structuralizes, and applies this process. Third, the method of distributing documentary films should change. We observed 'participating viewers' this studies, the ways of distributing documentary films online was very unique. I. E. Sorensen[35] showed Documentary film is crowdfunded as being as much a part of the film's promotion and building a community around the documentary as it is of its funding strategy. Vitalizing online funding and distribution can provide an alternative solution as a documentary film distribution method. Fourth, the role of the government should be reinforced via funding policy that encourages market competition. The policy direction of the government stays focused on stable funding for production and release; however, in order for a virtuous cycle of documentary films to occur, the policy should expand in the direction that creates an eco-system for documentary films to survive the market competition.

The present study extracted the success factors of documentary films, and it is significant as the first study on documentary film's financial performance. This significance can provide academic implications as follows. First, the main factors can be extracted inclusively and logically and can be used as an objective index for vitalizing documentary films or as valid criteria to establish or evaluate the policy pertinent to documentary films. In addition, deriving the hierarchial structure of documentary film success factors under the circumstance lacking such studies is meaningful in that it presented a theoretical frame and basic groundwork for follow-up studies

The present study also has limitations. It underestimated online phenomenon such as crowd funding, and the factors about 'Participating viewer' were not determined properly. Because the concept of 'Participating viewer' is too broad and complicated, it leaves behind a big issue of how to make an operational definition in a follow-up quantitative research. It is expected that this will be supplemented in follow-up studies on online funding, online distribution and expansion, and the impact of documentary films on online. In addition, it is possible to conduct a study about the changes in distribution method through diverse mediums beyond multi-media environment. The limitations of this study as the first research are expected to be supplemented in follow-up studies in the future.

Appendix

[1] Delphy Survey 1차 설문지

	category	factor	O.X
1	Creative Domain	Material with powerful figure or event	
2		Aesthetic and theatrical work quality	
3		Capable production company and producer	
4		Production Budget	

5		Releasing funding for from the government and film festivals	
6	Distribu- tion Domain	Crowd funding for releasing	
7		Distribution strategy fitting the features of the film	
8		Distribution pattern	
9		Releasing during timely period	
10		Effect of film festival award	
11	Marketing Domain	Advertisement & Promotion on media	
12		Word-of-mouth	
13		Participating viewers	

[2] Delphy Survey 2차 설문지

	category	factor	o.x
1	Creative Domain	Material with powerful figure or event	
2		Accurate perspective and message	
3		Aesthetic and theatrical work quality	
4		Capable production company and producer	
5		Production funding for from the government and film festivals	
6		Planning and Pre-distribution	
7	Distribu- tion Domain	Releasing funding for from the government and film festivals	확정
8		Crowd funding for releasing	
9		The exclusive theater of independent and art films	
10		Distribution strategy fitting the features of the film	
11		Distribution pattern	
12	Releasing during timely period	확정	
13	Marketing Domain	Effect of film festival award	
14		Advertisement & Promotion on media	확정
15		Word-of-mouth	확정
16		Participating viewers	

[3] Example of AHP Survey Sheet

< Category dimension >

측정항목	평가척도	측정항목
Creative Domain	5 4 3 2 1 2 3 4 5	Distribution Domain
Creative Domain	5 4 3 2 1 2 3 4 5	Marketing Domain
Distribution Domain	5 4 3 2 1 2 3 4 5	Marketing Domain

< Factor Dimension in Marketing Domain >

측정항목	평가척도	측정항목
A & P on media	5 4 3 2 1 2 3 4 5	Word-of-mouth
A & P on media	5 4 3 2 1 2 3 4 5	Participating viewer
Word-of-mouth	5 4 3 2 1 2 3 4 5	Participating viewer

참고 문헌

[1] Korean Film Council, *Integrated System of Box Office Records*.

[2] Korean Film Council Policy Research Department, *2014 Korean Film Industry Report*, Korean Film Council, 2014.

[3] S. Y. Im, "A comparative case study of factors determining documentary films' success :Focusing on 'My Love, Don't Cross That River' and 'Two Doors,'" J. of Contents Association, Vol.17, No.10, pp.503-517, 2017.

[4] E. M. Kim, "Determinants of Korean Film Success," Korean Journal of Journalism & Communication Studies, Vol.47, No.2, pp.190-220, 2003.

[5] S. Y. Park, "Success Factors of Animated Films," Animation Study, Vol.6, No.4, pp.23-37, 2010.

[6] W. K. Chung, "Success Factors of Animated Films, Focusing on films released in 2008-2010," Cartoon Animation Study, pp.21-32, 2009.

[7] S. A. Kwak, *Success Factors of Low Budget Films*, Graduate School of Arts and Cultural Management at Chugye University for the Arts, Master's thesis, 2009.

[8] S. Y. Kim, S. H. Lim, and Y. S. Chung, "Comparative Study of Success Predictors of Film by Type," Journal of the Korea Contents Association, Vol.10, No.2, pp.381-393, 2012.

[9] B. R. Litman, "Predicting the success of Theatrical Movies: An Empirical Study," Journal of Popular Culture, Vol.17, pp.159-175, 1983.

[10] B. R. Litman and L. S. Kohl, "Predicting Financial Success of Motion Pictures: The 80's Experience," Journal of Media Economics, Vol.2, pp.35-50, 1989.

[11] J. Wyatt, *Current research in film:Audiences, economics and law*, Ablex, 1988.

- [12] S. Sochay, "Predicting performance of motion pictures," *Journal of Media Economics*, Vol.7, pp.1-20, 1994.
- [13] J. Prag and J. Casavant, "An empirical study of the determinants of revenues and marketing expenditures in the motion picture industry," *Journal of Cultural Economics*, Vol.18, pp.217-235, 1994.
- [14] H. J. Kim, *Analysis of Star Power in Korean Film Stars*, Samsung Economic Research Institute, 1997.
- [15] H. J. Kim, *Is there a breakthrough for Korean film industry?*, Samsung Economic Research Institute, 1999.
- [16] H. H. Shin, *Study of success factors in Korean film industry-Focusing on films released in Seoul*, Konkuk University, Master's thesis, 2000.
- [17] H. S. Yoo, "Study of success factors for Korean films: focusing on production-related variables," *Korean Journal of Journalism & Communication Studies*, Vol.46, No.3, pp.183-213, 2002.
- [18] S. Kim, *Correlation of Korean film's structural and behavioral factors to box office success*, Ewha Womans University, Master's thesis, 2002.
- [19] S. A. Ahn and T. J. Kim, "Factor analysis of film runtime rate and viewer reduction rate," *Korea Marketing Review*, Vol.8, No.3, pp.1-17, 2003.
- [20] J. W. Park and G. O. Lee, "Impact of newspaper report related to a film on film's success :focusing on the length, time, and orientation of the report," *Korean Journal of Journalism & Communication Studies*, Vol.48, No.6, pp.62-83, 2004.
- [21] J. M. Koh, "Online fan community's activities and participation tendency," *Review of Cultural Economics*, Vol.11, pp.33-59, 2008.
- [22] S. H. Park and W. K. Chung, "Determinants of success in Korean film market : focusing on films released in 2006-2008," *Journal of Communication Science*, Vol.9, pp.243-276, 2009.
- [23] S. H. Park, H. J. Song, and W. K. Chung, "Determinants of Korean film's success," *Journal of Communication Science*, Vol.11, No.4, pp.231-258, 2011.
- [24] Y. H. Kim and J. H. Hong, "Determinants of film's success and performance prediction study," *Communications of the Korean Statistical Society*, Vol.18, No.6, pp.859-869, 2011.
- [25] J. H. Kim, "Analysis of Star Power in Korean Films, 2003-2007," *Film studies*, No.38, pp.11-52, 2008.
- [26] B. S. Kim, "Comparative study of success predictors by film type," *Korean Journal of Journalism & Communication Studies*, Vol.53, pp.257-287, 2009.
- [27] B. H. Chang, Y. H. Lee, and B. S. Kim, "Perfecting the predictors of film's success using psychological factors," *Korean Journal of Journalism & Communication Studies*, Vol.53, No.4, pp.346-371, 2009.
- [28] Y. G. Chu and S. H. Park, "Success factors of Japanese Animation," *The Japanese Modern Association of Korea*, Vol.42, pp.417-438, 2013.
- [29] H. R. Lee and C. H. Cho, "Study of quality index for school building designs," *Journal of the Architectural Institute of Korea*, Vol.28, No.5, pp.69-77, 2012.
- [30] I. H. Lee and S. B. Cho, "Success Factors of Korean Films Using Quantile Regression Analysis," *Journal of the Korea Management Engineers Society*, Vol.19, No.4, pp.117-134, 2014.
- [31] T. L. Satty, *The Analytic Hierarchy Process: Planning Priority Setting, Resource Allocation*, McGraw-Hill Books, 1980.
- [32] T. L. Satty, *Decision Making for Leaders: The Analytic Hierarchy Process for Decisions in a Complex World. Third Revised Edition*, Pittsburgh: RWS Publication, 2012.

- [33] Y. H. Shim, K. S. Byun, and B. K. Lee, "Strategic extraction of priority using AHP and ANP method for Green ICT Policy," Journal of Internet Computing and Services, Vol.12, No.1, pp.85-98, 2011.
- [34] K. H. Yoo and H. S. Chae, "Case study about diversified methods of distributing low-budget films," Association of Image & Film Studies, Vol.10, pp.293-322, 2007.
- [35] I. E. Sorensen, "Crowdsourcing and outsourcing: the impact of online funding and distribution on the documentary film industry in the UK," Media, Culture & Society, Vol.34, No.6, pp.726-743, 2012.

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