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# Analyzing trends in cultural contents tourism using big data

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#### Abstract

Korea's cultural content industry can develop into another unique tourism industry. However, since other prior studies focus on the Japanese content industry, this study identifies modern industrial trends by combining the unique characteristics of Korean content, that is, cultural content tourism, and the analysis ability of big data. The current status and direction of the cultural content tourism industry were studied by utilizing the extensive information collection and in-depth analysis capabilities of big data, and as a result, it was confirmed that the trend of the cultural content industry is related to the business aspect of cultural content, not the pure content interest of cultural content. This shows that Korean cultural contents have a strong business aspect. As a limitation, when research design was conducted using social media big data, the age, gender, etc. of the subject analyzed with unique anonymity could not be known. The Korean cultural content industry is expected to be successful in terms of business.

Keywords: Tourism, Cultural Contents, Big Data, Content Tourism, Content

## 1. Introduction

Korea's unique cultural contents were created by combining the characteristics of the region and became the purpose of tourism. In addition to touring to experience Korean culture and traditions, more and more tourists want to experience Korean content, such as filming locations for Korean dramas, performances by Korean artists, and music videos [1].

In addition to its value as a tourist destination, various events and activities that occur while experiencing content greatly contribute to local promotion and sales increase. Content tourism has performed various

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functions such as regional promotion through content experience as well as economic benefits of the region regardless of region [2].

Representative studies on content tourism are being conducted, However, most of the preceding studies have been conducted mainly in Japan, and discussions on cultural contents tourism in Korea are necessary In order to deeply understand the value of such cultural content tourism, this study aims to analyze the peculiarities of content tourism by analyzing specific keywords of content tourism through social media big data analysis.

# 2. Theoretical analysis

### 2.1 Cultural contents tourism

Cultural contents tourism began in 2005 when Japan's Ministry of Land, Infrastructure, and Transport, the Ministry of Economy, Trade and Industry, and the Cultural Administration appeared in the "Research on Regional Promotion Methods for the Use of Video and Other Content Production [3]".

Cultural contents tourism refers not only to visiting places that are the background of the original, such as movies, animations, and novels, but also to visit and experience the stage where you become the main character of the work and become a scenery [4].

It also means not only limiting the experience of the place where the work was staged, but also selling and exploring festivals and related products to meet the needs of tourists who develop a kind of tourism course through collaboration between the original author or company of the work and the community that became the motif of the work [5].

Korean cultural contents tourism began in 2002 with overseas tourists at Nami Island, the background of KBS2 Winter Sonata's overseas success In 2004, Nami Island attracted 10,000 foreign tourists and first attracted tourists mainly from Southeast Asian countries, but Japan's popularity also increased the number of Japanese tourists Since then, with the start of the Korean movie Holiday released in 2006, cultural content tourism has grown like the Korean Wave as the filming location of the drama Squid Game, which was released on NETFLIX in 2021, has become a tourist course, including the drama Iris, presents in the legendary witch movie Room 7, and the set of Iksan Prison, including insiders [6].

### 2.2 Big Data Analysis

In a report published in May 2011, McKinsey, a world-renowned consulting organization, defined, "The definition of big data is a dataset scale that goes beyond the ability of existing database management tools to collect, store, manage, and analyze data, and its definition is subjective and will continue to change [7]."

Big data is used in a variety of industries and can help support decision making and create new business models in a variety of areas, including marketing, finance, healthcare, research, and development. Data analysis methods include data collection, data collection, data analysis, data analysis, data analysis, data analysis, data analysis, data analysis [8].

# 3. Research design

#### 3.1 Research method

This study utilized the social media big data analysis system TEXTOM. TEXTOM is a useful software for collecting data for the desired period and analyzing the network in the web environment of various sites [9]. The study period was collected for a total of 1 year and 9 months from January 1, 2022 to October 1, 2023.

The word was selected as a keywords centered on Naver's blog, news, news, web documents, news, web documents, news, web documents, news, web documents, news, and Facebook. The word analysis and TF-IDF analysis was derived using program UCINET6. The analysis procedure is as shown in Figure 1.

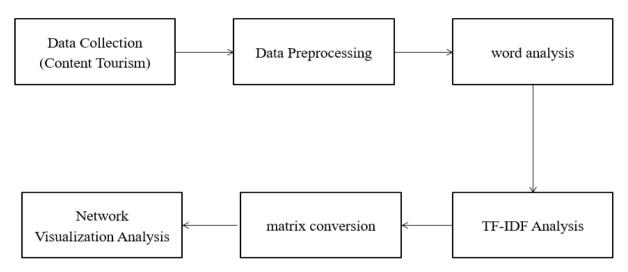


Figure 1. Big data analysis Procedure

## 4. Research and Results

## 4.1 words analysis and TF-IDF analysis

Through word analysis, 3,396 words were derived as a result of collecting search frequencies for cultural contents from January 2022 to October 1, 2023. Excluding duplicate words, the top 30 keywords were derived and applied to this study, and the results are shown in Table 1.

Word frequency						TF-IDF						
word	frequency	word	frequency	word	frequency	word	TF-IDF	word	TF-IDF	word	TF-IDF	
Cultuaral contents	1437	Contest	267	Video	167	Cultuaral contents	1178.5920	Production	749.3967	Game	550.4124	
Reearch	533	Global	207	Game	163	Research	1148.0834	Corporation	656.7358	Video	539.8297	
Industry	454	Digital	193	Expererience	155	Industry	1086.7766	Global	631.1324	Expererience	520.7486	
University	392	Movie	183	Topic	149	University	1029.0086	Digital	585.6211	Skill	505.5338	
Area	337	Exhibition	182	Skill	147	Contest	894.7766	Exhibition	583.5341	Tourism	489.3874	
Host	330	Representative	181	Development	144	Area	855.7665	Movie	583.5341	Society	448.0347	
Conter	311	Program	181	Society	140	host	844.2058	Program	572.0577	Design	487.7960	
Possibility	286	Art	179	Tourism	140	Business	778.9886	Art	568.2402	Development	482.5771	

Table 1. Word analysis and tf-idf analysis

Business	277	Performance	176	Participation	136	center	756.7438	Performance	552.8871	Plan	479.5003
Production	277	Education	173	Event	132	possibility	749.3967	Education	552.8871	Histroy	478.5758

Words related to the cultural content industry rank high in TF-IDF score and word frequency. The results of the word and TF-IDF analysis are likely to have dealt with important topics or contents related to the cultural contents industry with competitions (word 11th, TF-IDF 5th), movies (word 14th, TF-IDF 16th), art (word 18th, TF-IDF 18th), performances (word 19th, TF-IDF 19th), and games (word 21st, TF-IDF 20th).

# 4.2 Network Visualization Analysis

A network graph was created to visualize the relationship between keywords using the results of word frequency analysis. This visualization can clearly grasp the connectivity and importance between each keyword. UCINET 6 analyzed the central connection point of the keyword using one of the main software for network analysis. The results are shown in Figure 2.

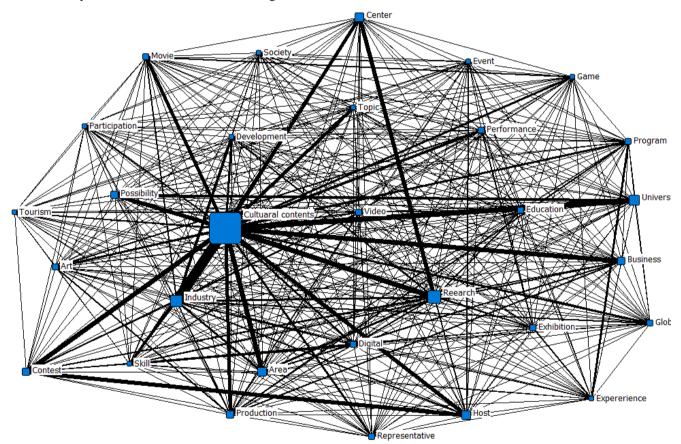


Figure 2. Network visualization

As a result of the connection of keywords, it was confirmed that the connection strength of movies, contests, performances, industries, regions, education, and research was strong, centering on cultural contents. In addition, it was confirmed that cultural contents, centers, and research have a strong connection strength to each other. As a result of examining this through the original text data, close connections with various cultural

content industry institutions such as the Cultural Contents Industry Promotion Agency and religious and cultural contents were identified. In addition, the strong connection strength between cultural contents, contests, and hosting nodes was also confirmed in the original text data.

### 4.3 Word Cloud Analysis

The importance of the importance that you know through word cloud analysis. Research, industries, industrial, universities and business keywords were confirmed that it was highly associated with cultural content. On the other hand, the culture content keywords such as contest, games, movies, movies, movies, movies, movies, and arts [10].



Figure 3. Word cloud analysis

### 5. Conclusion

We study analyzed data from January 2022 to October 2023 to understand the trend of Korean cultural contents. It was analyzed using social media big data analysis techniques focusing on "cultural content" as a major keyword. 30 key keywords were derived through the TF-IDF technique and the connection between these keywords was identified through network visualization analysis.

As a result of the analysis, the link between "cultural content research" and "public contest" keywords was strong, and it was confirmed that Korea's interest in cultural content was more focused on business aspects using cultural content, such as contests and research, rather than pure content itself.

The result is that Korea's cultural content industry is growing actively, and people recognize cultural content as a business opportunity, not just in the form of entertainment or art.

The active competition or research activities related to cultural contents means that the industry is continuously innovating. This can be a driving force to increase the competitiveness of the industry and promote sustainable development.

This suggests that the value of cultural content in Korea goes beyond simple content production and consumption and focuses on various business models using content. As a limitation of this study, it is difficult to identify demographic data such as gender, age, education, and occupation from the collected information because anonymity is guaranteed due to the nature of social media big data analysis techniques. In this study, since emotional analysis or cone analysis was not conducted, an in-depth analysis of the positive or negative meaning of keywords and patterns of use within the context was not conducted.

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