

## An empirical study on the high-quality development efficiency of the urban economy in China



Jia-Zheng Lin<sup>1</sup>, Hyung-Ho Kim<sup>2,\*</sup>

<sup>1</sup>Department of Business College, Guangdong Business and Technology University, Zhaoqing, China

<sup>2</sup>Department of Air Transport and Logistics, Sehan University, Yeongam County, Korea

### ARTICLE INFO

#### Article history:

Received 16 December 2021

Received in revised form

5 April 2022

Accepted 8 April 2022

#### Keywords:

High-quality development

High-quality economic development

Social network analysis

### ABSTRACT

High-quality development has become a popular term to describe China's development. From the perspective of social hot issues and bibliometric analysis, this paper uses the method of SNA (Social Network Analysis) to sort out, dig and analyze the literature related to "high-quality development." The results show that there is a close relationship between "high-quality development," "high-quality economic development" and "high-quality urban economic development," which are the best answers to the questions of why high-quality development is important in China. This study, through literature review and analysis, clarifies the logical concept of the academic research on "high-quality development," which will provide reference and important guidance for further research on "high-quality development."

© 2022 The Authors. Published by IASE. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

### 1. Introduction

Since the outbreak of COVID-19 in 2019, the global economy has fallen into a rapid recession. Some regions and countries have suffered the most severe blow in history, and China's economy cannot avoid it. According to CEIC data, from the end of 2019 to the beginning of 2020, China's economic growth suddenly dropped from an average of 6% to negative growth (Fig. 1). Since the end of the 1970s, China has implemented the strategy of reform and opening-up, seized the opportunities of the global industrial revolution, deindustrialization in Europe and the United States, global industrial transfer, and a relatively friendly international environment, attracted the inflow of global factors of production with an open mind, and quickly became a global manufacturing center and manufacturing power. Since the implementation of reform and opening up in 1978, GDP has been increasing year by year.

According to the data released by the Research Center for Forecasting Science of the Chinese Academy of Sciences, China's economy is expected to grow by 8.5% in 2021, and the growth rate will return to around 6% in 2022. China's economy has

changed from the stage of high-speed growth to the stage of high-quality development.

At present, although China's economy is gradually recovering, compared with the world, Europe, and the United States, China's economic recovery momentum is the strongest (Fig. 2). China is shifting from a stage of rapid growth to a stage of high-quality development. Its economic development is shifting from one driven by factors and investment to one driven by innovation. Its economic structure is constantly improving, and more emphasis is placed on sustainable development. To promote high-quality development, we need to replace old drivers of growth with new ones, build a modern economy, and better meet people's needs for a better life. In particular, we should reduce transaction costs in all links of production, distribution, circulation, and consumption, strengthen cooperation between urban and rural areas, between cities and among regions and open to the outside world, and foster new advantages for China to participate in international cooperation and competition under the new circumstances.

### 2. Literature survey

High-quality development embodies the goal of modernization, which aims to increase production through efficiency and achieve economic growth through high efficiency and low consumption. For example, Agustina et al. (2020) analyzed the potential of the creative economy to realize a strategic plan for high-quality development of the

\* Corresponding Author.

Email Address: [hhkim@sehan.ac.kr](mailto:hhkim@sehan.ac.kr) (H. H. Kim)

<https://doi.org/10.21833/ijaas.2022.06.016>

Corresponding author's ORCID profile:

<https://orcid.org/0000-0002-4343-5501>

2313-626X/© 2022 The Authors. Published by IASE.

This is an open access article under the CC BY-NC-ND license

(<http://creativecommons.org/licenses/by-nc-nd/4.0/>)

urban economy by utilizing city brands, innovative industrial centers, and renewable resources. Kim and Chung (2020) aimed at improving the quality of life of residents through technological, ideological,

and environmental concerns and public services, in order to find the implementation plan for the high-quality development potential of new cities.

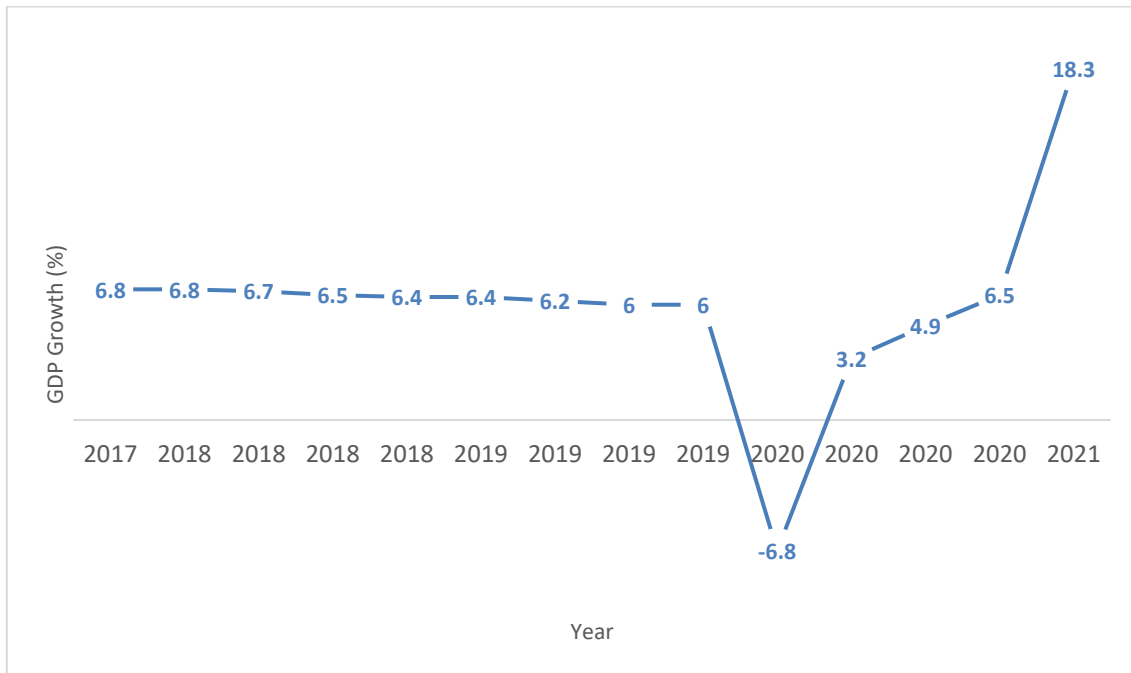


Fig. 1: China's economic growth

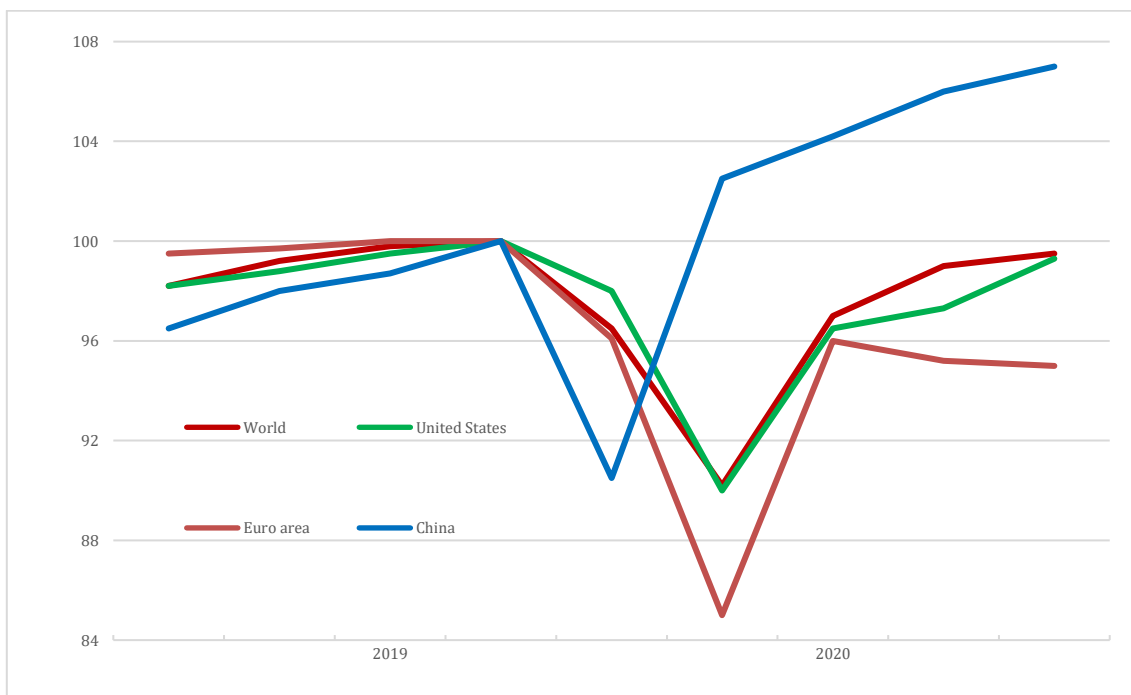


Fig. 2: Global economy recovery

Lin and Kim (2021) explored ways to promote high-quality development of tourism by using the data envelopment analysis (DEA) method and explored high-quality development strategies of the urban economy from the perspective of economic development of the urban tourism industry. In terms of the application of the social network analysis (SNA) method, Wang et al. (2021) put forward effective opinions for relevant management departments to formulate tourism policies, modify

market strategies and optimize the development of the tourism economy by analyzing the tourism route data of specific cities. As soon as the concept of "high-quality development" is put forward, it has become a social hot spot, and the interpretation of its definition and connotation characteristics also presents a diversified pattern. Although there is no consensus at present, its core and essence have been widely concerned. The academic circle is mainly around the category of political economy to interpret

"high quality." Throughout the literature, "high-quality development" is to achieve innovative, coordinated, green, open, and shared development.

At the present stage, achieving high-quality economic development to meet the growing needs of the people is the only way to achieve a strong country and prosperity for the people. It is also the right way to integrate China's economy into the international order and even lead the world. China adopted the reform and opened up in 1978, and over the course of more than 40 years has resolutely embarked on a path of a socialist market economy with Chinese characteristics. China is in a critical period of realizing the great rejuvenation of the Chinese nation. Promoting economic quality development is the fundamental requirement for China to determine development ideas, formulate economic policies and implement macro-control in the current and future period (Bei, 2018). China's economy is in the "three superimposed" stages of "change of growth rate, painful period of structural adjustment and digestion period of early stimulus policies," "economic work should adapt to the new normal of economic development" and "China's economy has shifted from the stage of high-speed growth to the stage of high-quality development" Shown in Fig. 3.

The high-quality development of the urban economy is the core embodiment of national economic development, which is not only conducive to promoting national economic development but also helps to shape the country's dominant position in global competition. Lee and Kim (2021) took southwestern China as the research object and use the spatial dislocation model to evaluate the spatial dislocation of the urban tourism economy. We

should explore the high-quality development path of the urban economy from tourism economy, tourism resources, human resources, and urban transportation. When exploring the construction of smart cities, Hoffman (2021) conducted a research to promote the quality development of the urban economy through information and communication technology, urban planning, and health sectors. The research on the high-quality development of the urban economy has become a hot topic in the academic circle, especially in economically developed areas. Achieving comprehensive high-quality development through high-quality economic development is the first task of urban development. High-quality economic development has become the new normal of the development of the Guangdong-Hong Kong-Macao Greater Bay Area. For example, Hu and Kim (2021) studied the characteristics of cooperation in cyberspace between cities in Guangdong, Hong Kong, and Macao Bay, China, and derive the dynamic evolution law of urban development.

The report of the 19th National Congress of the Communist Party of China pointed out that China's economy has changed from a high-speed stage of growth to a high-quality stage of development, and is in an important period of transformation in its development. The economic center of gravity is the optimization of economic structure and transformation of growth engine of growth."We must adhere to the principle of quality first and efficiency first and strive to promote industrial development in Hong Kong," the Chinese Government reiterated. Structural reform will be carried out on the supply side as the main line to promote the quality of economic development.

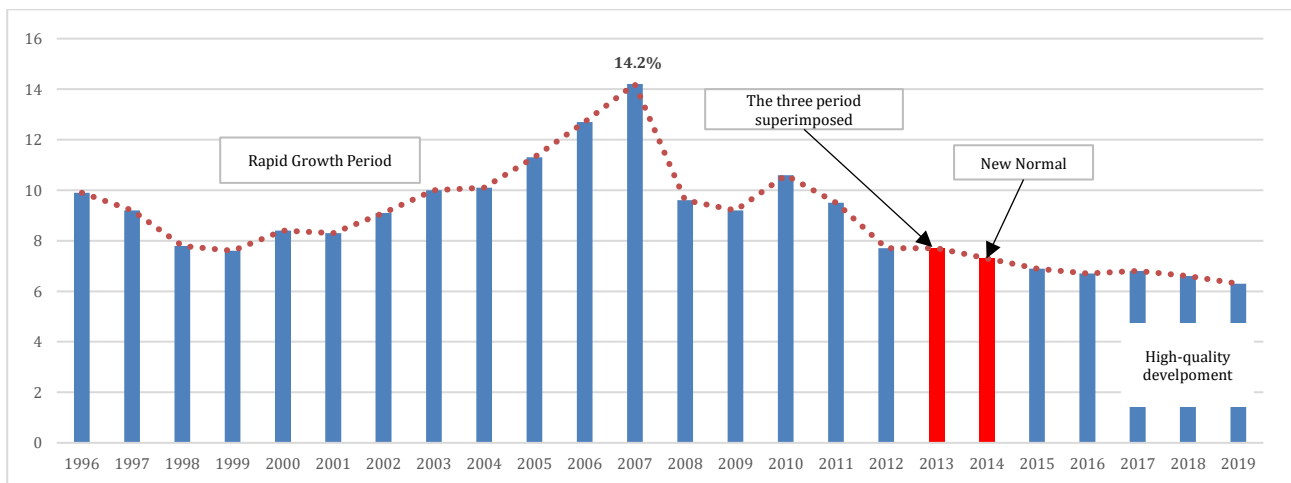


Fig. 3: Evolution of China's economic development ideas

### 3. Research methods and data sources

#### 3.1. Research methods

There are many methods to analyze the research trend of a hot topic (Park and Kim, 2021). Most of which are SNA (Social Network Analysis). SNA is a structural analysis method that comprehensively

uses graph theory and mathematical models to study the relationship between actors and actors (Lee, 2021), actors and their social networks, as well as the relationship between one social network and another (Chang and Ko, 2019). Barnes (1954) first proposed the concept of "social network", and was also the first foreign scholar to use the concept of "social network." As an anthropologist, he constructed a "network of relationships" by

analyzing the connections among the residents of The Norwegian Island, using the residents as nodes and the "number of trips" as the concept of relationships. Barnes (1954) considered social relations as "a collection of points, and lines connect points to form a collection," thus forming the network form in the relationship. A social network is a collection of individual behaviors, which is formed by the consistency of the group. In the structure, individuals are connected with each other through relations and form relationship bonds. The concept and research of social network analysis are all based on the two basic parts of "node" and "weight of line." Software of CiteSpaceV was used, "high-quality development" as a hot keyword analysis in different fields (Kim, 2017), the internal correlation between related high-frequency words (Moon, 2019).

In the 1960s, social network analysis, as a new and unique theory, was understood by people. By summarizing the thoughts of social network analysis, the basic viewpoints and thoughts of social network analysis are as follows:

- The connection between individuals in the world will form a network.
- The overall network has an impact on individual actions, and this influence and restriction is double-sided, with benign and malignant results;
- Individuals are influenced by surrounding individuals in their actions rather than acting independently.
- The flow of resources is formed through the connection between individuals.
- Through the network model of economic, political, cultural, and other qualitative structural ideas to achieve matrix, and then operational, in order to analyze the long-term relationship between nodes development.
- Analyzing the influence of relationships from the perspective of social relations, the sociological

explanation is more credible than the conclusion and explanation drew from the perspective of individual attributes.

### 3.2. Data sources and processing

This paper takes August 4, 2021, as the time point, uses the Baidu search engine to search for "high-quality development" as the keyword, and obtains more than 100 million web pages, among which the keyword daily information index is up to 14,202. At the same time, China National Knowledge Infrastructure (CNKI) first searched for "high-quality development" as a keyword, and the results showed that in the five years from 2017 to 2021, among the papers published on "high-quality development," the research topic was "high-quality economic development." In order to further explore relevant literature on this topic, this study takes August 17, 2021, as the time node, inputs "high-quality economic development" as the search keyword on CNKI and conducts an advanced search. The publication time of literature is selected as 2011-2021. The number of papers published in academic journals directly related to "high-quality economic development" was 1549.

### 4. Empirical analysis

With August 17, 2021, as the time node, enter "high-quality economic development" as the search keyword in CNKI for advanced search, select 2011-2021 as the publication time, and obtain 1549 papers published in academic journals. CiteSpaceV software was used to select keywords in Node Types as the set threshold to run the software, and the co-occurrence atlas of keywords related to "high-quality development" was obtained (Fig. 4).

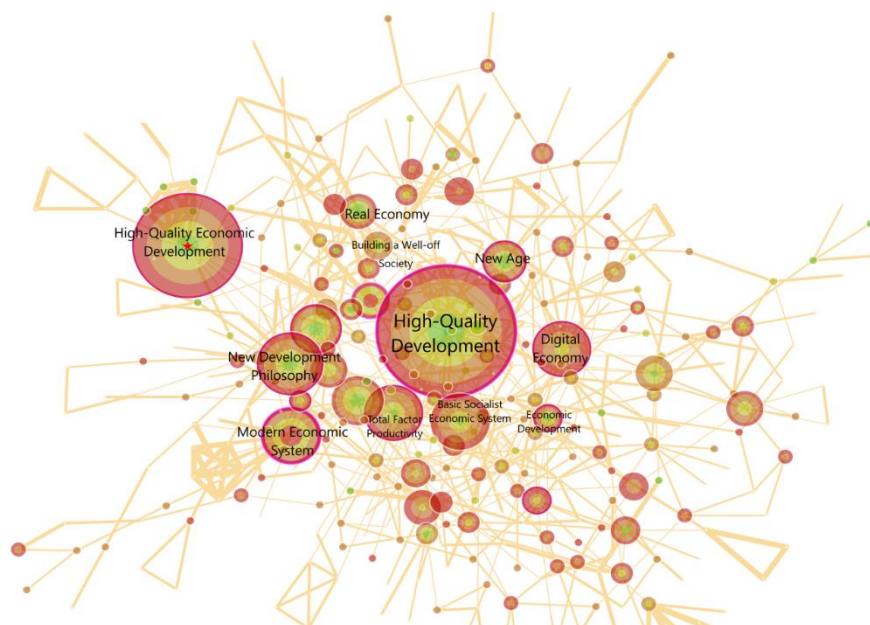


Fig. 4: Keywords network structure atlas

The larger the circle in Fig. 4 is, the more times and higher the frequency this keyword appears in the literature, indicating that this field is a research hot spot. As can be seen from Fig. 4, keywords related to the research topic of "high-quality development" include "high-quality economic development," "new development concept," "digital economy," "modern economic system," and etc. Among them, in addition to the keywords directly related to the theme of "high-quality development," "high-quality economic development" has the largest circle, from the thickness of the connecting line can also be seen that the keyword and other keywords are closely connected. This means that when "high-quality development" is taken as the research topic, "high-quality economic development" is the research hot spot, and this hot spot has a high degree of

connection with other research fields. Keywords are the author's refinement of academic papers. Keywords that appear frequently in a field are often regarded as research hot spots. The above 451 works were imported into Excel for data cleaning, and 422 valid works were sorted out. Keywords were extracted by the 4.0 software of bibliometrics trend change Mining of CNKI. The results show that the keywords with high frequency in papers published from 2018 to 2021 are "high-quality development," "high-quality economic development," "digital economy," "regional economy" and "urban economy." Fig. 5 shows a trend of high-frequency keywords related to "high-quality development of the urban economy" from 2018 to 2021.

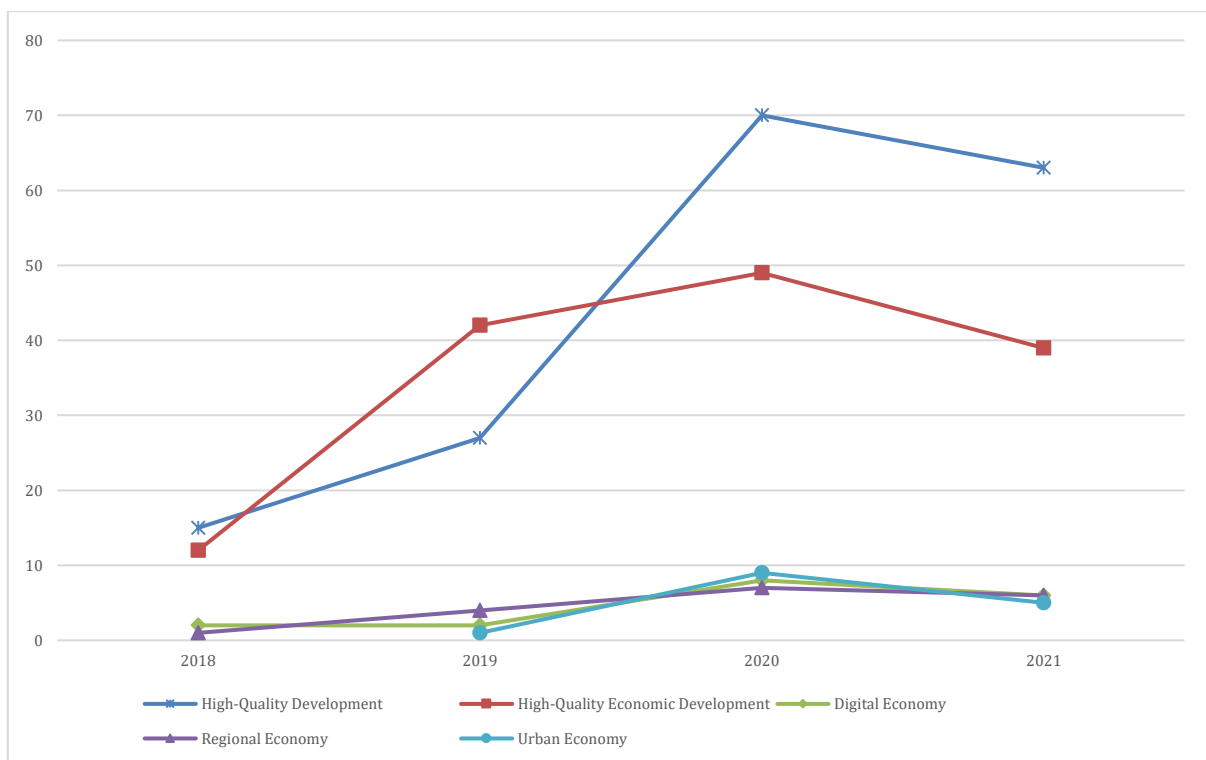


Fig. 5: Trend of high-frequency keywords related to "high-quality development of the urban economy" from 2018 to 2021

The keyword frequency trend chart (Fig. 5) is formed according to the keyword occurrence frequency value. As can be seen from Fig. 5, the frequency of the keyword "high-quality development" in 2020 is as high as 70 times, and the frequency of the keyword "high-quality economic development" is highly consistent with it. This proves once again that high-quality economic development is always the biggest research hot spot and focus when conducting high-quality related research. In addition, although "urban economy" also appears in the trend chart of high-frequency keywords, the frequency of occurrence is not high, and there are no high-frequency keywords of "high-quality development of the urban economy." Therefore, this paper chooses "high-quality development of the urban economy" as the research topic, which still has a large research space and innovation in the academic circle.

## 5. Conclusion

At present, the practical exploration of high quality development of the urban economy is the main hot spot. Cities are the carrier of economic development and the core driving force of national economic development. The high-quality development of the urban economy is related to people's direct experience of high-quality development, and it is also the best embodiment of China's high-quality development. At present, China is implementing the National development strategy of "The Belt and Road." To realize the great blueprint of "the Belt and Road," it needs to carry out mutually beneficial cooperation and exchanges with countries along the route and build a good external environment. The best way to consolidate the internal environment is to improve the efficiency of urban economic development in China, realize the



high-quality development of the urban economy, and enhance the international competitiveness of Chinese cities.

### Acknowledgment

This study was supported by the Sehan University Research fund in 2022.

### Compliance with ethical standards

### Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### References

- Agustina Y, Winarno A, Pratikto H, Narmaditya BS and Filianti F (2020). A creative economy development strategy: The case of Trenggalek creative network for Trenggalek Regency, Indonesia. *Journal of Asian Finance, Economics and Business*, 7(12): 1111-1122. <https://doi.org/10.13106/jafeb.2020.vol7.no12.1111>
- Barnes JA (1954). Class and committees in a Norwegian island parish. *Human Relations*, 7(1): 39-58. <https://doi.org/10.1177/001872675400700102>
- Bei J (2018). "Study on the "high-quality development" economics". *China Political Economy*, 1(2): 163-180. <https://doi.org/10.1108/CPE-10-2018-016>
- Chang YH and Ko CB (2019). A study on efficient building energy management system based on big data. *International Journal of Advanced Smart Convergence*, 8(1): 82-86.
- Hoffman MC (2021). Smart cities: A review of the most recent literature. *Informatization Policy*, 27(1): 3-35.
- Hu SS and Kim HH (2021). Spatial structure and dynamic evolution of urban cooperative innovation network in Guangdong-Hong Kong-Macao Greater Bay Area, China: An analysis based on cooperative invention patents. *Journal of Asian Finance, Economics and Business*, 8(9): 113-119.
- Kim JB (2017). Cultural idea and space development. *International Journal of Advanced Culture Technology*, 5(1): 32-39. <https://doi.org/10.17703/IJACT.2017.5.1.32>
- Kim JT and Chung KH (2020). A study on the China urbanization policies in Jingjingi region and the planning characters for new city center design: Focused on the new city center development projects in rural area near the periphery of Metropolitan. *Journal of the Korean Institute of Rural Architecture*, 22(2): 35-42. <https://doi.org/10.14577/kirua.2020.22.2.35>
- Lee CH (2021). Design of cloud service platform for e-government. *International Journal of Internet, Broadcasting and Communication*, 13(1): 201-209.
- Lee R and Kim HH (2021). Using spatial misalignment method to measure and evaluate unbalanced regional tourism development in Southwest China. *International Journal of Advanced Culture Technology*, 9(3): 23-33. <https://doi.org/10.17703/IJACT.2021.9.3.23>
- Lin JZ and Kim HH (2021). Research on the development efficiency of tourism in the Non-Pearl River Delta of Guangdong. *International Journal of Advanced Culture Technology*, 9(3): 95-110. <https://doi.org/10.17703/IJACT.2021.9.3.34>
- Moon SH (2019). A study on securing global big data competitiveness based on its environment analysis. *The Journal of the Convergence on Culture Technology*, 5(2): 361-366. <https://doi.org/10.17703/JCCT.2019.5.2.361>
- Park DG and Kim SH (2021). Analysis of the impact relationship for risk factors on big data projects using SNA. *The Journal of the Institute of Internet, Broadcasting and Communication*, 21(1): 79-86.
- Wang XC, Wang CY and Kim HH (2021). Research on the characteristics of Chinese tourists flow to Thailand: Application of the social network analysis (SNA) method. *Journal of Asian Finance, Economics and Business*, 8(11): 243-251.