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DEVELOPMENT AND DIGITALIZATION OF CULTURAL INDUSTRY MARKETING BASED ON BIG DATA

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Abstract

Advanced statistical methods, including but not limited to multiple regression analysis, cluster analysis, and time series analysis, as well as the latest big data analysis tools such as Hadoop and Spark, are employed to ensure the depth and breadth of the study. In addition, we applied machine learning algorithms from Python and R, such as random forests and neural networks, to mine hidden patterns behind the data. Special attention was paid to statistical power analysis to ensure that our sample size was sufficient to detect the expected effect size, thereby enhancing the robustness and reliability of the results. The cultural industry is in a critical period of digital transformation. Only through successful digital transformation and simultaneous enhancement of marketing strategies can the cultural industry maintain sustained and healthy growth. This paper first reviews the development of China's strategic emerging industries between 2010 and 2020. During this period, the industry's added value in GDP rose steadily, reaching 11.7% by 2020, an increase of 0.2 percentage points over the previous year and 4.1 percentage points over 2014, fully demonstrating its strong impetus to economic growth. Then, the article looks into the future, providing an in-depth analysis of China's development prospects for strategic emerging industries in the fields of digital economy, artificial intelligence and integrated circuits. It is expected that strategic emerging industries will continue to maintain vitality and serve as a key force in promoting the high-quality development of China's economy, driven by these emerging technology sectors. Finally, the article innovatively proposes a framework for the digital transformation and development of the cultural industry based on big data. In this framework, the re-examination and adjustment of the division of labor between the government and the market in the development of the industry, as well as the important role of the government in building an adaptive service system, are emphasized. Meanwhile, in-depth discussions and suggestions are made on five core issues for future development, including strengthening the industry's independent innovation capability and enhancing the function of the innovation public service platform.

Key words: big data, cultural industry marketing, digitalization

Received: June, 2023; Revised final: May, 2024; Accepted: May, 2024; Published in final edited form: May, 2024

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