

## 摘 要

近年来，创新科技是各个国家未来发展战略中的重中之重，为了应对日益复杂的国际形势和世界经济持续下行的局面，建设智慧城市成为了各国在城市发展模式中的主要选择。随着我国开始了新一轮的科技革命和产业变革，习近平总书记在党的二十大报告中指出“加快发展数字化经济，促进数字经济和实体经济深度融合”，数字化经济转型便成为了我国经济发展的核心目标，智慧城市不仅能够推动数字经济发展，融合数字信息技术，还能够应对外界风险冲击，推动城市可持续发展。我国在 2013 年开始逐渐实施智慧城市试点政策，使得智慧城市这一概念受到了全国人民的关注。智慧城市发展至今，已经成为了我国经济高质量发展新阶段的核心驱动力之一，不仅能够提升我国人民群众的生活质量，还能够让居民也参与到城市管理中，共同构建美好新家园。智慧城市建设除了在城市建设方面对我国发展有巨大帮助，在其他方面也有所助力。在推动城市生态文明建设方面，智慧城市试点政策能够帮助政府规划城市资源，保护城市生态环境，合理利用自然资源构建精细化城市，推动城市生态文明建设和经济建设的协调发展。在社会成效治理方面，智慧城市能够通过提高公众参与以及增强社会保障福利来增强政府对城市的治理能力，创新政府治理模式，提高城市管理效率和居民对社会保障服务的满意度。从改革开放以来，我国曾经面临过数次经济危机，但是我国的经济发展却从未陷入下滑趋势，反而在众多经济乱象和社会动荡中依旧能够保持稳定增长，这些都归功于我国的经济体系具有一定强度的经济韧性，一个国家的经济系统能够依靠经济韧性保持经济增长，稳定经济发展大格局，使自身在面对经济下行态势时能够留有一定的缓冲空间，防止经济风险冲击引发的社会动荡，提高国家经济系统的适应变革能力和自我发展能力。既然国家经济系统具有较强经济韧性时对自身有如此多好处，那么一个城市也能够依靠经济韧性对外来风险冲击进行规避。因为经济韧性是城市经济系统抵御外来风险，保护城市稳定运行的关键所在，增强经济韧性不仅能够提升城市经济效应增长，还能够改善居民生活质量，提升居民幸福指数。由此可见，智慧城市能够推动数字经济发展，而数字经济又能够增强经济韧性，那么我们必须思考智慧城市政策能否为增强城市经济韧性提供帮助。基于这个思考，本文将智慧城市试点政策作为一项准自然实验，研究智慧城市建设对城市经济韧性的影响，并探究其中的空间关联性。

首先，本文根据过往研究对智慧城市、城市韧性和城市经济韧性相关概念做出了系统的说明，明晰本文研究对象的真正含义。然后运用经济增长理论和路径依赖理论搭建智慧城市政策对经济韧性的整体理论框架，从技术创新、产业结构和资源配置这三个角度探究智慧政策对经济韧性的具体影响机理。其次，通过借鉴前人的研究方法，构建起综合评价指标体系并运用熵值法测度各城市经济韧性，使用多期双重差分模型对智慧城

市建设与经济韧性的关系进行了深入研究，在通过平行趋势检验的基础上进行基准回归，回归结果表明智慧城市能够显著增强城市经济韧性并且通过安慰剂检验，接着对不同资源类型城市进行异质性分析，得出智慧城市建设能够增强资源型城市的经济韧性的结果。然后选择合适的空间权重矩阵并通过计算莫兰指数以及绘制莫兰散点图进行空间自相关检验来确保空间计量模型对本文的适用性，接着通过 LM 检验、Wald 检验、LR 检验和豪斯曼检验等一系列检验最终确定本文应该使用固定效应的空间杜宾模型进行回归分析，研究智慧城市建设对城市经济韧性的空间效应，并对空间效应进行分解，发现效应分解中的间接效应大于直接效应。最后，根据本文的研究结论，提出如下政策建议：第一，加强智慧城市建设顶层设计，促进城市经济系统协调发展。第二，加大政策支持和资金投入，推动技术创新发展。第三，根据城市的不同特征，因地制宜建设智慧城市。

**关键词：**智慧城市；城市经济韧性；双重差分；空间计量

## Abstract

In recent years, innovation and technology have become the top priority in the future development strategies of various countries, and in order to cope with the increasingly complex national situation and the continuous downturn of the world economy, the construction of smart cities has become the main choice of countries in the urban development model. As China has begun a new round of scientific and technological revolution and industrial transformation, General Secretary Xi Jinping pointed out in the report of the 20th National Congress of the Communist Party of China that "accelerate the development of the digital economy and promote the deep integration of the digital economy and the real economy", and the transformation of the digital economy has become the core goal of China's economic development. In 2013, China began to gradually implement the pilot policy of smart cities, which made the concept of smart cities attract the attention of people across the country. Since the development of smart cities, it has become one of the core driving forces in the new stage of China's high-quality economic development, which can not only improve the quality of life of the people in China, but also allow residents to participate in urban management and jointly build a beautiful new home. In addition to the great help to China's development in urban construction, the construction of smart cities has also helped in other aspects. In terms of promoting the construction of urban ecological civilization, the smart city pilot policy can help the government plan urban resources, protect the urban ecological environment, rationally use natural resources to build refined cities, and promote the coordinated development of urban ecological civilization construction and economic construction. In terms of social effectiveness governance, smart cities can enhance the government's ability to govern cities by improving public participation and enhancing social security benefits, innovate government governance models, and improve urban management efficiency and residents' satisfaction with social security services. Since the reform and opening up, China has faced several economic crises, but China's economic development has never fallen into a downward trend, but in many economic chaos and social turmoil can still maintain stable growth, these are due to China's economic system has a certain intensity of economic resilience, a country's economic system can rely on economic resilience to maintain economic growth, stabilize the overall pattern of economic development, so that they can leave a certain buffer space in the face of economic downturn, prevent social turmoil caused by economic risk impact, and improve the ability of the national

economic system to adapt to change and self-development。 Since a country's economic system has so many benefits when it has strong economic resilience, a city can also rely on economic resilience to avoid external risk shocks. Because economic resilience is the key to the urban economic system to resist external risks and protect the stable operation of cities, enhancing economic resilience can not only enhance the growth of urban economic effects, but also improve the quality of life and happiness of residents. It can be seen that smart cities can promote the development of the digital economy, and the digital economy can enhance economic resilience, so we must think about whether smart city policies can help enhance the economic resilience of cities. Based on this thinking, this paper takes the smart city pilot policy as a quasi-natural experiment to study the impact of smart city construction on urban economic resilience, and explores its spatial relevance.

First, this thesis systematically explains the concepts of smart city, urban resilience and urban economic resilience based on previous research, and clarifies the true meaning of the research object of this thesis. Then, the economic growth theory and path dependence theory are used to build an overall theoretical framework of smart city policy on economic resilience, and the specific impact mechanism of smart city policy on economic resilience is explored from the perspectives of technological innovation, industrial structure and resource allocation. Secondly, by drawing on the previous research methods, a comprehensive evaluation index system was constructed and the entropy method was used to measure the economic resilience of each city, and the relationship between smart city construction and economic resilience was studied in depth by using the multi-period difference-in-difference model, and the benchmark regression was carried out on the basis of the parallel trend test, and the regression results showed that the smart city can significantly enhance the economic resilience of the city and passed the placebo test, and then the heterogeneity analysis of cities with different resource types was carried out. The results show that the construction of smart cities can enhance the economic resilience of resource-based cities. Then, through a series of tests such as LM test, Wald test, LR test and Hausmann test, it is determined that the spatial Durbin model with fixed effect should be used for regression analysis to study the spatial effect of smart city construction on urban economic resilience, and the spatial effect of smart city construction on urban economic resilience is decomposed, and the indirect effect in the effect decomposition is greater than the direct effect. Finally, according to the research conclusions of this thesis, the following policy suggestions are put forward: First, strengthen the top-level design of smart city construction and promote the coordinated development of urban economic system.

Second, increase policy support and capital investment to promote technological innovation and development. Third, according to the different characteristics of the city, build a smart city according to local conditions.

**Key Words:** smart city; urban economic resilience; difference of difference; spatial metering

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