

An Empirical Analysis of the Influence of E-commerce Consumption on the Efficiency of Commercial Circulation Based on Autoregressive Distribution Lag Model

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Abstract: The commercial circulation industry integrates trade, catering, wholesale, retail, warehousing, logistics and other businesses, and is an important basic industry of the national economy. The development of e-commerce has shown an explosive growth trend, which has had a positive impact on the commercial circulation industry, especially in the logistics transportation and corporate financing in the commercial circulation industry. With the advancement of Internet technology, e-commerce has developed rapidly, which has brought great changes to consumers' traditional consumption methods, and at the same time promoted the transformation of the commerce and circulation industry. E-commerce has promoted the rapid development of the logistics industry, and has had an important impact on the financing mode of commercial circulation enterprises. The application of e-commerce in the field of commerce and trade has promoted economic and social progress, and has an important role in reducing the cost of enterprise circulation and cultivating new consumption methods, especially in enriching the financing mode of trade and circulation enterprises. The search index based on the search engine records the user search history of a certain keyword or a certain category. These time series data can provide the original real-time basis for the forecast of economic activities. The effect of e-commerce consumption based on the autoregressive distribution lag model on the efficiency of commerce and trade circulation is obvious.

1. Introduction

With the advent of the new economic era, e-commerce has developed rapidly, and its impact on the field of commerce and circulation has become increasingly obvious, which has promoted the technological innovation and development of the commerce and circulation industry itself. The continuous innovation and development of e-commerce has also shifted from a single online model to a model of online and offline integrated development, and has constructed a brand-new industrial chain model, which has gained a certain degree of influence both at home and abroad. E-commerce mainly includes B2B e-commerce model and B2C e-commerce model. The development of the two e-commerce models has embodied the characteristics of remoteness and subject complexity, and has achieved remarkable results in the new economic era, and has had a profound impact on a variety of industries, including the trade and circulation industry. There are still certain problems in the commerce and trade circulation industry. The small scale of business operations and scattered operations are important factors that hinder the sustainable development of my country's commerce and trade circulation industry. With the rapid and efficient development of e-commerce, the commercial circulation industry integrates and draws on the development advantages of e-commerce to promote the innovation of its own industry business model and the optimization of resource allocation, which has significant significance for improving the market competitiveness and scale of industry development. For the Bayesian analysis of time series, more foreign researches regard time and individual as two levels to establish a multi-level Bayesian model. This model can help the growth of commerce and trade circulation.

2. The Application of E-commerce in Commercial Circulation Industry

2.1. Logistics and transportation enterprises apply e-commerce to improve operating efficiency

Whether it is e-commerce or commerce and trade, information flow, logistics and capital flow have jointly constructed the three core elements of the industry. Among them, the flow of information conveys business information, and logistics is an important component of the e-commerce system, which directly affects the use of e-commerce advantages; the flow of funds closely connects different market entities and facilitates the conclusion of trade. From the perspective of our country's economic development regulations, there is an uneven state of regional development in our country, and e-commerce can take advantage of intelligence and networking to improve the efficiency of logistics and transportation in different regions. Logistics is based on information flow and capital flow, which is an important factor in determining trade exchanges between market entities. For the majority of commercial logistics enterprises, they can take advantage of the uneven regional development and take advantage of the superior resources and technology of e-commerce to carry out a reasonable layout in the business space. E-commerce can make the transportation of goods become networked and intelligent, and complete the efficient operation of goods between different regions through the transmission of information. The promotion, sinking and popularization of e-commerce have provided inexhaustible power and broad channels for the rapid development of the commercial circulation industry. For now, the development of my country's e-commerce has become stable and mature, and actively expanding cross-border e-commerce and optimizing the development of e-commerce have become the future industry development trend. With the development of the economy, the level of networking has gradually improved, and online consumption has become the new favorite of young people. The regional imbalance in the development of the trade and circulation industry indicates the gap in economic development between regions, but it is also a good time for many trade and circulation enterprises to lay out their business space.

2.2. Commercial Circulation Enterprises Apply E-commerce Innovative Financing Model

There is a natural connection between the commercial circulation industry and e-commerce, and the two complement each other. The integration of e-commerce and commerce circulation has natural attributes. E-commerce technology has promoted the efficient development of the commerce circulation industry, broadened the business fields of the commerce circulation industry, and spawned many innovative business models. Combining commerce circulation and e-commerce can promote the development of commerce circulation industry while counteracting the e-commerce industry and promote the emergence of a variety of new business models. E-commerce has brought a huge impact on the production, operation and management of enterprises, as well as traditional trade methods, and has brought about changes in the economic structure. Traditional production, operation and management models can no longer match the rapid development of contemporary Internet-related businesses, so the development of e-commerce has become the general trend of the times. From the perspective of long-term development, banking, insurance and other financial institutions are the main financing channels for commercial circulation enterprises. E-commerce has not only changed the face of the traditional commerce and trade circulation industry from the business model level, but also has a certain impact on the corporate financing structure. In the era of big data, all e-commerce transaction data has traces and can be verified. The development of supply chain finance provides convenient and low-cost channels for traditional entity SMEs to raise funds. The credit guarantee financing of the e-commerce platform is shown in Figure 1.

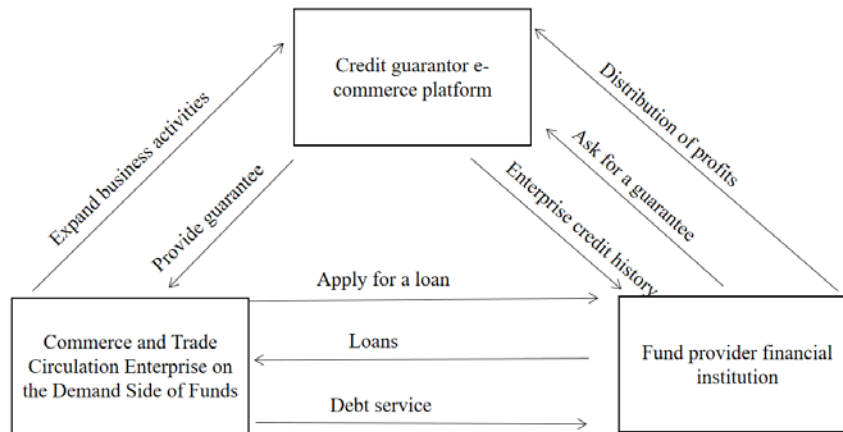


Figure 1 Schematic diagram of credit guarantee financing of e-commerce platform

Commercial circulation companies are mainly small and medium-sized enterprises. For them, they are subject to information asymmetry, resulting in single financing channels of traditional financial institutions and small credit lines of banks, etc., resulting in the development of small and medium-sized enterprises facing the problems of financing difficulties and high financing. . The key to solving the financing problems of SMEs is to reduce information asymmetry, and a platform is needed as a place for information exchange to promote cooperation between investment and financing parties. The rapid development of the financial industry can promote the development of the real economy, because this industry has a greater demand for industry support for the real economy. The e-commerce platform has broken the financing difficulties and expensive financing problems of small and medium-sized enterprises such as commercial circulation enterprises due to information asymmetry. Its own information exchange attributes have helped commercial circulation enterprises to raise funds more conveniently, and have gradually become One of its financing channels.

3. The Development Significance of E-commerce in the Commercial Circulation Industry

3.1. Reduce enterprise circulation costs

Operating costs, especially logistics and circulation costs, have always been the focus of commercial circulation enterprises, and they are also an important factor restricting the development of enterprises. The scale effect of commercial circulation enterprises is relatively insufficient. Most of them are represented by decentralized, small-scale small and medium-sized enterprises, whose business operations rely on reducing operating costs to obtain profits. The layout of the commercial circulation industry in the financial industry will also accelerate with the development of e-commerce technology, thereby further squeezing the development space of traditional financial institutions. In the actual operation process, commercial circulation enterprises must rely on strict control of operating costs to seek the benefits of business operations. Compared with e-commerce, the traditional commercial circulation industry has the disadvantages of high cost, low efficiency, narrow coverage, weak coordination and low transparency. Compared with traditional commerce, e-commerce has transaction advantages such as low cost, high efficiency, wide coverage, strong coordination, and high transparency.

As an emerging business, the development speed of Internet financial services cannot be underestimated. E-commerce uses network and Internet technology to effectively connect decentralized small and medium-sized enterprises to help them realize resource sharing and information sharing, thereby reducing the large operating costs of small and medium-sized enterprises due to information asymmetry. In the future, e-commerce and finance will undergo cross-border integration to achieve further expansion of business scope and models. Transactions through the e-commerce platform enable capital to flow to the front line of business operations in

the first time, increase the rate of return on capital and the scale of economic development, and effectively expand the space for the development of the financial service entity business circulation industry. From the perspective of business operations, e-commerce technology can effectively reduce information asymmetry while helping small and medium-sized enterprises reduce transaction costs, strengthen the relationship between market entities, and realize the optimal configuration of resources. E-commerce will promote more efficient operation of commercial circulation enterprises, improve the efficiency of resource allocation, promote the increase of capital turnover rate, and revitalize the stock funds.

3.2. Contribute to fostering new consumption patterns

In terms of obtaining market information, e-commerce companies can increase the breadth and depth of information, and at the same time make the company's products more compatible with customer needs, so it can drive the improvement of related companies' competitive advantages. The commercial circulation industry is inseparable from the drive of offline consumption. Consumption drives the development of the commerce and trade circulation industry, and e-commerce provides more convenient conditions for consumption. E-commerce has realized the digitization and intelligentization of consumption links by using Internet information technology, which has had a profound impact on market information. The use of e-commerce in commerce and trade will expand consumer groups, include more consumer groups in the scope of services, and increase the possibility of training new consumption methods. With the expansion of consumer groups, the ways of consumption will become more diverse and the consumption capacity will also be effectively improved. Therefore, it can promote the continuous expansion of the market and timely update of service models for commerce and trade enterprises. For enterprises, e-commerce helps them better understand market needs and customer needs. For customers, they can use e-commerce to select goods and services. The improvement of consumption power and the increase of consumption diversity are undoubtedly beneficial to commercial circulation enterprises, and will further promote the commercial circulation industry to provide products and services with more market prospects. As far as the current situation is concerned, the younger generation of consumer groups account for the vast majority, and they have the characteristics of strong personality, non-traditional and strong consumption ability, which are more in line with the consumption characteristics driven by e-commerce. Changes in consumption patterns promote the commercial circulation industry to provide products and services that are more in line with market needs. E-commerce can promote the transformation of traditional business models, replace offline consumption with online consumption, and effectively improve consumer service levels.

4. Conclusions

E-commerce has had a profound impact on the overall economic structure. Under the background of the new economic era, e-commerce has a profound impact on the real economy. With the development of e-commerce, the traditional trade circulation industry has gradually change in such areas. As far as the application of e-commerce technology is concerned, e-commerce has made the logistics and transportation industry more convenient and efficient, has a significant impact on commerce and trade, and has promoted the healthy development of the entire industry. Actively promote the integration of e-commerce and commerce and circulation industries to "go global." E-commerce and commerce and trade circulation industries promote each other, support each other, and are inseparable. In this regard, governments at all levels should increase their support, starting with risk prevention, policy support, consulting services, and supervision methods, and actively promote the integration of e-commerce and commerce and circulation industries to "go global." Commercial circulation enterprises must actively carry out international investment and mergers and acquisitions. They can integrate the resources of the host country through investment, equity participation, cooperation, and franchise, to cultivate competitive advantages, and create advantageous industrial chains and value chains. The application of e-commerce in the field of commerce and trade can cultivate new consumption patterns and expand the domestic consumer

market is of great significance to promote the reform of the macroeconomic development pattern.

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