Analysis of Factors Affecting China’s Cargo Insurance Demand Based on E-commerce Background

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ABSTRACT

This article uses the time-series data of China from 2000 to 2014 to analyze the influencing factors of cargo insurance demand in the context of e-commerce by using multiple linear regression models. The authors discuss the influence of economic development, cargo insurance supply and environmental factors on cargo insurance income, insurance depth, and insurance density. The results show that the risk situation, e-commerce development and the development of the logistics industry have a significant positive impact on the demand for cargo insurance; price is proportional to cargo insurance demand; and GDP has negative impact on the depth of cargo insurance.

KEYWORDS

Cargo Insurance, Chongqing University Of Posts And Telecommunications, Demand, E-Commerce, Influencing Factors, Multiple Linear Regression

INTRODUCTION

In recent years, the rapid development of e-commerce in China has reached 18.3 trillion in e-commerce transactions from 0.065 trillion yuan in 2000 to 2015, with an average annual growth rate of 49.61%. Logistics is an important part of e-commerce (Lee, 2001), the rapid development of electronic commerce providing opportunities for modern logistics industry development, logistics industry prosperity index (LPI) more than 50% all the year in China (Weina, 2015). But also brought new challenge to logistics industry at the same time, because the logistics industry belongs to high risk industry, the development of e-commerce accelerated the transportation of goods and increased risks in the process of logistics distribution. In case of loss due to natural disasters or accidents during transportation, the logistics enterprises need cargo insurance for transfer or spread risks. However, the China’s cargo insurance proportion of property insurance accounted decline year by year, from 7.63% in 1997 to 1.27% in 2014. Meanwhile, the cargo insurance depth has decreased from 4.2%
in 1997 to 1.5% in 2014, has been a downward trend. The slow development of cargo insurance is difficult to protect the rapid development of e-commerce and logistics industry. It is worth discussing why there are problems such as insufficient demand for cargo insurance and slow development of cargo insurance due to the rapid development of e-commerce and logistics industry.

At present, there are many the literatures about the relationship between e-commerce and logistics. From the content, can be divided into two categories, first, logistics is an important part of e-commerce. The Typical scholar has James. Al, Haul Lee (2001), Fang Yan and Wu Zi, believed that logistics is an important part of e-commerce competition, and to implement e-commerce activities have a significant impact. Second, e-commerce and logistics depend on each other to promote each other. Reference pointed out that the logistics is not only the guarantee for e-commerce, but also the possibility of developing shackles Reference proposed that cost reduction and service level enhancement of logistics can promote expansion of e-commerce (Wei et al. 2007). Reference studied e-commerce and logistics are interdependent relationship, and concluded that e-commerce promote logistics informationization level, reduce logistics cost (Hui, 2008). Reference believed that the e-commerce can help the logistics to achieve information network, and promotes the development of logistics industry (Yuan, 2011).

From the above can be drawn that logistics and e-commerce are closely related. In order to meet the needs of the development of e-commerce, the logistics industry has gradually formed the modern logistics operation mode, such as small batch, multi-batch, high speed, JIT and others system. The integration, complexity and variability of these operational modes have led to the difficulty of controlling the entire transport process, and the freight risk is diversified. The logistics industry urgently needs cargo insurance to minimize the risk in transit. Although the academic and industry have listed the cargo insurance as the key point of current research and development. China’s cargo insurance development is not satisfactory, and the research on cargo insurance is in the preliminary stage. At present, there are two main viewpoints on the relationship between cargo insurance and logistics:

First view is cargo insurance promotes the development of logistics industry. Yuan Jingjing (2011) used the VAR model’s impulse response function and variance decomposition method to prove the role of cargo insurance on the development of the logistics industry. Mi Junyi et al. (2015) used the structural equation model in 1997-2013 the panel data for empirical research, and empirical results show that the cargo insurance has significant impact on the development of modern logistics industry.

The second is the logistics industry promotes the development of cargo insurance. Foreign scholars: Crothers (2004) proposed that cargo insurance can reduce risks of foreign trade and promote economic development. In addition, cargo insurance has management of risk functions, and financial functions. With the acceleration of globalization, the risk of supply chain is increasing rapidly, and the relationship between transportation risk and insurance in supply chain has become the focus and focus of scholars’ research. Chen et al. (2013) used panel data to analyze the relationship between globalization and cargo insurance activities. The results show that globalization has increased the risk of supply chain and promoted the development of cargo insurance. Burnson and Patrick (2016) believed that the supply chain vulnerability is rising, the risk is being strengthened, and cargo insurance is an effective measure to reduce the risk of supply chain. Alexander et al. (2014) from the perspective of the cargo insurance, proposed the supply chain network complexity is the main reason leading to the risk of transport of goods, and improved the quality of transport products to increase investment insurance advice. Paul Gheorghe (2016) argued that the growing risk of the supply chain increasing and the role of insurance in logistics management needs to be strengthened.

Chinese scholar: Yang et al. (2008) pointed out that the rapid development of the logistics industry faced more new risks, and cargo insurance need to innovate from the soft and hard environment innovation to meet the new demand of modern logistics. Li Qingfeng (2016) believed that logistics and cargo insurance interdependent, but there are problems such as the mismatch between cargo insurance service and modern logistics. Yan Junhua (2016) analyzed the lagging reasons of cargo insurance development in China, and put forward recommendations of developing cargo insurance.
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