

# Research on the Countermeasures of Personal Information Leakage under the Real Name System of Express Delivery

Yuwei Zhang

People's Public Security University of China, Beijing, 100076, China

yuwei.zhang.ppsuc@gmail.com

## Abstract

After the implementation of the real-name system of express delivery, the express industry collects, stores and deals with a large amount of personal privacy information of customers. Information leakage will not only threaten the property and personal safety of users, but also bring harm to social stability. At present, the leakage of personal information in the express delivery industry is not optimistic, and the express sender, the express delivery company and the express recipient are all responsible for this. In view of the problem of information leakage, this paper puts forward the basic countermeasures to prevent information leakage from three aspects: strengthening legislation, strengthening external supervision system, strengthening internal management of enterprises and improving users' awareness of information security protection.

## Keywords

Express real-name system, privacy protection, solutions.

## 1. Introduction

On October 22, 2018, the Ministry of Transport promulgated *the measures for the Administration of Real-name receipt and delivery of Express Mail*, stipulating that sending and delivery enterprises shall carry out real-name receipt and delivery, and require the sender to show valid identity documents and verify the identity of the sender when receiving and sending mail and express delivery. and register identity information. China has implemented the real-name express delivery system for a long time, but judging from the actual situation implemented in recent years, the implementation of the real-name mail delivery real-name system is not ideal, except that there are no detailed rules or punishment measures for the implementation of the real-name express delivery system. Citizens' worry about the disclosure of personal data information is also one of the main reasons.

## 2. The Concept and Current Situation of Express Information Leakage

### 2.1. The Concept of Express Information Leakage

Express information leakage refers to the leakage of personal privacy information of express customers, which mainly includes information such as name, ID number, work unit and home address, ID number and so on. With the explosive development of the express delivery industry, the problem of leakage of express delivery information has become increasingly prominent, and it has become a difficult social problem to be solved urgently.

### 2.2. The Current Situation of Express Information Leakage

The booming express delivery industry has facilitated people's lives, but at the same time it has brought many social problems. Among them, the leakage of express delivery information and the resulting public safety issues seriously disrupted social order, threatened public safety, and

violated citizens' legal personal and property rights. In 2015, there were 43 serious information leakage incidents in Chinese express companies. In June 2016, Song, an employee of a courier company, intentionally sold the company's internal account password to others, causing the privacy information of more than 200,000 citizens to be leaked. In 2017, police in Jiangsu Province successfully cracked a case of hackers illegally hacking into an express delivery company to steal customer information for profit, arresting 13 suspects and seizing nearly 100 million pieces of citizen information illegally obtained. In 2018, a user with the ID "f666666" blatantly peddled 1 billion pieces of courier data of Yuantong Express on the dark web. It is said that these leaked data were from late 2014, including the sender (receiver). Name, phone, address, etc.

### **3. The Analysis of the Reasons for the Leakage of Personal Information under the Real-Name System of Express Delivery**

After the implementation of the express real-name system, express delivery from the shipper to the consignee, the following links must go through: first, individual customers or e-commerce will hand over the express items to the express company and register personal information. Second, the courier picks up the parts and inputs the user information into the enterprise information system; third, the courier delivers the goods to the enterprise network and to the receiving place. Fourth, delivery by couriers and pick-up by customers. In this process, driven by interests and due to the existence of management loopholes, there are many channels for express information leakage in daily life, which can be summarized as follows.

#### **3.1. The Express Delivery Company Itself and its Contracted Courier Leaked.**

The express company itself leaked with its contracted couriers. There are loopholes in the official information management system of some express delivery enterprises. After the hackers invaded, they stole all the customer privacy data databases and sold valuable private information on the black market to fraud gangs to carry out accurate fraud. Couriers handle a large number of couriers every day, some couriers breed false ideas to illegally resell express information, and even some express company staff abuse their power to buy and sell a large amount of customer information in the database or use it illegally. In the first half of 2017, the password of an internal account of an express delivery company was illegally sold by Song, an employee, and more than 200,000 waybill information, including customer address, name, purchase items, telephone number and price, were leaked to Cao and Li. And 1 million citizen messages, including these 200,000 express messages, were bought by Huang, the owner of e-commerce, at a price of 1000 yuan, which was used to send messages to publicize the online store. In the end, four people involved in the case were sentenced for the crime of infringing upon the personal information of citizens.

#### **3.2. Intermediary Institutions Such as E-Commerce Shopping Websites Directly Leak Express Information Because of Their Own Improper Security Management.**

The "E-commerce Ecological Security White Paper" issued by Security Alliance of E-Commerce Ecosystem points out that in the whole e-commerce ecology, there is a risk of information leakage from the platform to the merchants. The proportion of information leakage in these two links is 10% and 36% respectively. E-commerce shopping website is the first link to contact customer information, some e-commerce websites have management loopholes or in order to obtain benefits, through the direct sale of data or accounts to fraudsters, to obtain illegal income. In addition, person with criminal tendency will come to apply for jobs disguised as customer service. After they take advantage of their positions to gain access to back-office accounts, they download private data in bulk and then resign.

### **3.3. The Express Bill that has not been Destroyed after Signing Causes Information Leakage**

Many customers do not have the habit of destroying the express bill after signing in the express and discard the outer package with the express bill at will, which leads to the lawbreaker obtaining personal privacy information and inducing illegal crimes.

## **4. Countermeasures for Express Information Leakage**

The leakage of personal information of express delivery is a comprehensive problem, which is caused by many factors, such as inadequate supervision, poor internal management of express delivery companies, individual users do not pay attention to privacy and so on. Therefore, in dealing with this problem, we must adopt a multi-pronged approach, the external supervision system should be continuously strengthened, the internal management of express enterprises should also be strengthened, and customers' awareness of privacy information security protection should be improved. Only by taking into account these aspects, can we really solve the current serious problem of personal information disclosure.

### **4.1. Improve the Legal Protection System and Increase the Intensity of Punishment**

Article 21 of *the measures for the Administration of Real-name receipt and delivery of Express Mail* stipulates that postal enterprises, express delivery enterprises and their employees who commit any of the following acts shall be punished by the postal administrative department in accordance with the provisions of Article 76 of the Postal Law of the people's Republic of China and Article 44 of the interim regulations on Express delivery: (1) selling, divulging or illegally providing user information in the course of providing delivery services; (2) if the leakage of user information occurs or may occur, no immediate remedial measures shall be taken, or it shall not be reported to the postal administrative department in the place where the incident occurred.

The penalties imposed by these legal provisions are relatively small and are not worth mentioning at all for the profits made from the illegal trafficking of personal information, so it is difficult to deter lawbreakers. Our country should speed up the legislative process of personal information privacy protection, formulate a special, complete and systematic personal information protection law as soon as possible, clarify the obligations and responsibilities of express delivery enterprises and employees for the protection of users' personal information, as well as the legal consequences of divulging users' personal information, and formulate a reasonable punishment system at the same time. So as to increase the cost of leaking personal information by express delivery enterprises.

### **4.2. Strengthen the Professional Ethics Education for the Employees of Express Companies.**

Courier is an important node in the chain of information leakage. However, it is a common phenomenon that couriers lack professional ethics, information protection awareness and legal awareness. Therefore, express delivery enterprises should strengthen industry self-discipline, train and educate their employees regularly, and constantly improve their awareness of protecting information and legal awareness.

### **4.3. Construct a Perfect Supervision System.**

Today, express delivery is the new business type of the Internet era. At this stage, the government should treat this industry with caution. The division of regulatory responsibilities of various departments for the express delivery industry is not clear, which is very disadvantageous to the protection of users' personal information. Therefore, the government

should appropriately strengthen the supervision and management of the express delivery industry and guard the basic bottom line of information security in the express delivery industry.

The postal administration department is not only the main manager of the express delivery industry, but also the primary responsible person for its supervision. The Postal Law of the people's Republic of China endows postal departments with supervisory and administrative duties, and postal administrative departments at all levels shall promptly accept and deal with reports on illegal acts of express delivery enterprises; enterprises and individuals with clear facts and conclusive evidence shall be strictly punished accordingly. All express companies that have obtained the "express business license" must go through the relevant registration formalities with the administrative department for industry and commerce before they can carry out operation. The department for industry and commerce shall assume the responsibility of market supervision and administrative law enforcement, and urge enterprises with problems to rectify and reform in a timely manner. The department for industry and commerce should also cooperate with the postal department to check the business qualification of express delivery enterprises regularly and irregularly, and revoke the industrial and commercial registration of enterprises that no longer have the business qualification in accordance with the law. This can not only ensure the quality of enterprises entering the express market, but also promote enterprises to operate in good faith in accordance with the law. Public security organs should first strengthen publicity and education to make express delivery employees aware of the serious illegality of selling customer's personal information; secondly, they should step up efforts to crack down on enterprises or individuals who illegally sell customer information and strictly deal with them in accordance with the law. If his act violates the criminal law and constitutes a crime, he will file a case for investigation, collect evidence and transfer it for examination and prosecution in accordance with the criminal law.

#### **4.4. Improve the Awareness of Information Security Protection**

Express delivery enterprises and relevant government departments should increase publicity efforts to improve customers' awareness of information security and protection. Such as how to deal with the information on the waste express package, how to seek help once the information is leaked, how to do your best to reduce the loss, and so on. Make them aware of the importance of protecting customer information and the seriousness of the consequences of divulging private information, enhance their legal awareness and strengthen their consciousness of protecting citizen information. In addition, in order to cultivate the legal concept of express customers, customers generally lack awareness of safeguarding their rights. After many customers found that their information had been leaked, they did not complain to the postal department in time or reported the case to the public security organ, but chose to swallow it. It is necessary to make express customers aware of their legitimate rights and interests through publicity and encourage people to safeguard their own interests through legal channels.

## **References**

- [1] Zheng Jianning. Legal protection of users' personal information under express real-name receiving and mailing system [J]. Hubei Social Sciences, 2016 (06): 156 Mutual 161.
- [2] Yan Beni, Ye Zongyong, Duan Mengli. Analysis of the causes of hidden dangers of express users' personal information security-investigation and research based on users' point of view [J]. Modern Intelligence, 2018, (2): 91 MUE 95.
- [3] Zhang Cheng, Xiong Jiaqi. The construction of express operation mode to ensure information security under the real name system of express delivery [J]. Logistics Engineering and Management, 2016, (6): 46. 48.

- [4] Huang Yan. whether the express "privacy list" can protect the security of personal information [J]. Computer and Network, 2018 Jol 44 (03): 52 Murray 53.
- [5] Geng Yong, Sun Junfeng. Risk prevention of user privacy disclosure under the express real-name system [J]. China's Circulation economy, 2017, (11): 122Mui 128.
- [6] Li yanfan. On the privacy disclosure of users in the express industry and countermeasures [J]. Modern marketing (Business Edition), 2018 (09): 48.
- [7] Zhou Mingming. Research significance and purpose of real name system of express delivery from the perspective of law [J]. Labor and social security world, 2017 (36): 47-48.
- [8] Liu Zhen. Personal information protection in the context of real name express delivery system [J]. Law and society, 2017 (15): 21-23.
- [9] Liu Zhen. Personal information protection in the context of real name system [J]. Law and society, 2017, (5): 21-23.
- [10] Zhao Yufei, "grey industrial chain" formed by express bill information trading. Legal system and economy (mid day), 2013 (10): 6-7.