Journal of Computational Science &Engineering 55(2021) 1283-1287

Available at http://www.asocse.org ISSN 1710-4068

Analysis of Enterprise Annuity in the Transportation System of a City in China

Fanrun Meng

Zibo Social Insurance Enterprise Center, Zibo 255030, China

*Corresponding Author: Fanrun Meng, zbbxmfr@163.com

Abstract: **In 2004, China issued the Trial Measures for Enterprise Annuity, which initially established the enterprise annuity system and gradually became an important part of China's pension insurance system. Based on the investigation and analysis of the current situation of the participation of enterprise annuity in someone city's transportation system, this paper reveals the problems of the system in the aspects of personnel composition, operation organization, information disclosure, and supervision and management of the enterprise annuity. And put forward some corresponding suggestions to increase the insurance participation rate of enterprise annuity, and promote the sound and rapid development of enterprise annuity in transportation system.**

Keywords: Enterprise annuity; Statistical analysis; Transportation system

Received 02 November 2021, Revised 15 November 2021, Accepted 30 November 2021

1.Introduction

Enterprise annuity, originally called enterprise supplementary pension insurance, refers to a supplementary pension insurance system established voluntarily by enterprises and their staff on the basis of legally participating in basic pension insurance. With the continuous deepening of China's pension insurance system, enterprise annuity has become the "second pillar" of the "three pillars" of improving the social security system and safeguarding the benefits of social pension insurance for staff. It is vividly called the "gold handcuffs" for enterprises to retain talent, and the "gold crutch" for the pension system [1]. However, it has been nearly 20 years since China issued the Trial Measures for Enterprise Annuity in 2004. The overall insurance participation rate of enterprise annuity is not high, and the work progress is slow. Therefore, we investigated and analyzed on the operation of enterprise annuity in the transportation system of someone city in China, in order to find out the problems existing in the enterprise annuity work of the system, and put forward countermeasures and suggestions.

2.Basic Situation

There are 215 enterprises in the transportation system of the city, with 64710 staff, including 7293 management staff and 57417 front-line staff. Since the introduction of the enterprise annuity policy in 2004, up to the end of June 2021, 116 enterprises of the city's transportation system had participated in the enterprise annuity, with 36,590 staff, including 6,410 management staff and 30,180 front-line staff. The accumulated payment of the enterprise annuity is 914.75 million yuan, of which 224.35 million yuan was for the management staff and 690.4 million yuan for the front-line staff.

It can be seen from the above table that 56.54% of the staff in the city's transportation system have been covered by the enterprise annuity, and the insurance participation rate is higher than the average level of the whole city (26.55%). On the basis of all staff participating in the basic pension insurance, these staff have been put on a "safety lock" for the pensions.

From the perspective of the number of insured enterprises (Fig 1), since the establishment of the enterprise annuity system

In 2004, the number of enterprises participating in

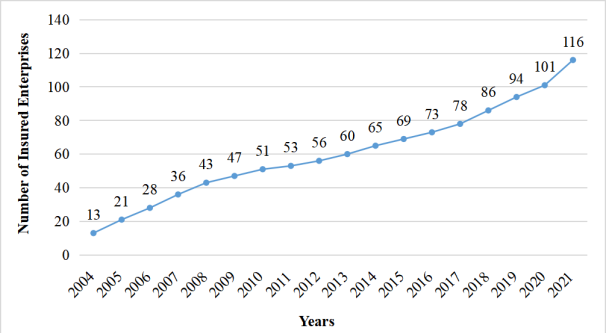

Fig.1 Trend of the number of insured enterprises in the city's transportation system from July 2004 to the end of June 2021.

enterprise annuity in the system has increased steadily, with an average annual growth rate of 13.74%. As of the end of June 2021, it has accounted for 53.95% of all enterprises.

From the perspective of the number of insured staff (Fig 2), the number of staff participating in the enterprise annuity in the system has also achieved rapid growth, with an average annual growth rate of 15.96%, since 2004. After investigation and analysis, it is found that the city's transportation system mainly promoted the workof enterprise annuity through the following aspects:

(1) Policy promotion. In accordance with the spirit of the Notice on Doing a Good Job in Enterprise Annuity

2021@ The American Computational Science Society. All rights reserved.

Available at http://www.asocse.org ISSN 1710-4068

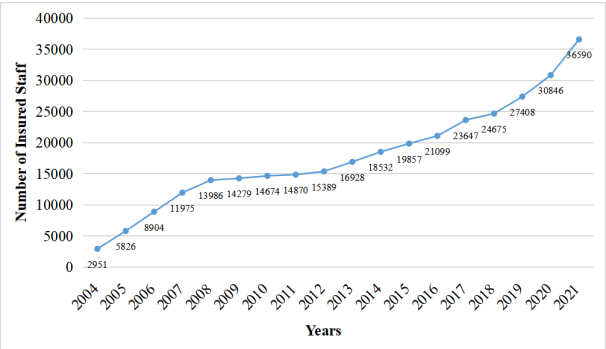

Fig.2 Trend of the number of insured staff in the city's transportation system from June 2004 to the end of June 2021.

issued by the city's human resources and social security department, the transportation system actively held promotion meetings to mobilize transportation enterprises to carry out enterprise annuity work in an all-round way, including extensive publicity, centralized training, learning experience, and pilot projects. The transportation system actively invites the human resources and social security department and enterprise annuity operation institutions to do policy publicity and promotion work in enterprises, and actively signs letters of intent with enterprises to promote the development of enterprise annuity work.

(2) Operation of enterprise annuity fund operation institutions. There are 18 enterprise annuity fund operation institutions in the city, including 4 insurance companies with the qualification of trustee, account manager and investment manager; 2 insurance companies with the qualification of trustee and investment manager; 2 insurance companies with the qualification of account manager; and 3 banks with the qualification of trustee, account manager, custodian and investment manager; 2 banks have the qualification of trustee, account manager and custodian; 3 banks have the qualification of account manager and custodian; 2 banks have the qualification of custodian.

Among the 18 enterprise annuity fund operation institutions, 5 insurance companies and 3 banks are more proactive, and the enterprise annuity work has achieved remarkable results. Among the 116 enterprises carrying out enterprise annuity policy, 15 enterprises have chosen the "3+1" management mode of insurance companies as trustees, account managers and investment managers, and financial institutions as custodians, while the remaining 101 enterprises have all chosen the "2+2" management mode of insurance companies as trustees and investment managers, and financial institutions as custodians and account managers.

The close cooperation between the enterprises and the operation institutions has enabled the enterprise annuity work of transportation system of the city carry out smoothly.

3. Existing Problems

Although the number of enterprises and staff participating in the enterprise annuity in the transportation system is increasing year by year, the insurance participation rate is 53.95% and 56.54% respectively, which is just over half. The overall development of enterprise annuity work is still relatively slow, and there are many problems that restrict the progress of work, mainly including the following aspects:

(1) The insurance participation rate of enterprises is still not high enough, and the composition of insured staff is unreasonable. We compared the insurance participation rate and per capita payment of the management and front-line staff in the city's transportation system. It can be clearly seen from Fig. 3 and Fig. 4 that the insurance participation rate of the management and front-line staff is 87.89% and 52.56% respectively, with a differ-ence of 35.33%. In addition, the per capita payment of management and front-line staff also differs by 12100 yuan. The management staff are 52.84% higher than front-line staff, and the gap is too large.

The reason that causes afore-mentioned phenomena: First, enterprises and staff have insufficient understand-

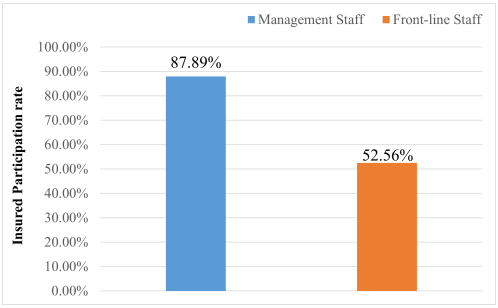

Fig.3 Comparison chart of insured proportion between management and fort-line staff.

ing of enterprise annuities, some staff do not understand, and some enterprises do not cooperate [2]. Second, enterprises value the current investment and benefits, while the benefits of enterprise annuity are mainly reflected in the future rather than the current period. The difference between long-term and short-term effects makes enterprise leaders more willing to invest funds in production operations than participating in enterprise annuity. Third, under the influence of the international and domestic economic situation, the economic benefits of the city's transportation system are declining and the production operation is difficult, many enterprises are unable to carry out the work of enterprise annuity. Fourthly, enterprises attach importance to the management staff and neglects the front-line staff. As a result, the proportion

2021@ The American Computational Science Society. All rights reserved.

Available at http://www.asocse.org ISSN 1710-4068

Table1 Basic information of enterprise annuity of transportation system of the city at the end of June 2021

Staff category	Total number of staff (person)	The number of insured staff (person)	Insurance participation rate (%)	Accumulated payment of enterprise annuity (million yuan)	Per capita payment (thousand yuan)
Management staff	7293	6410	87.89%	224.35	35.0
Front-line staff	57417	30180	52.56%	690.40	22.9
Total	64710	36590	56.54%	914.75	25.0

of management staff participating in the enterprise annuity and the contributions of them are much higher than front-line staff, which is unfavorable to the management and future development of enterprises.

(2) The uneven level of operation institutions has weakened the trust of enterprises. From the perspective of the 18 insurance companies and banks that operate enterprise annuity, the main problems are as follows:

1) Operation institutions lack investment verification and restriction mechanism. Facing the huge development potential of the enterprise annuity market, the research and preparation of operation institutions are not deep and detailed enough. In the process of investment operation, operation institutions lack a verification mechanism for the rationality and compliance of investment, can not effectively conduct prudent verification to ensure the rationality and safety of investment. It also can not adjust the investment strategy and change the investment direction in real time according to the changes of the market economic environment, so as to maximize the investment benefits.

2) Operation institutions have poor risk awareness and lack of methods to avoid risks. In the current enterprise annuity system, there is no provision concerning how to bear risks. In the distribution of income, all management fees are linked to the net value of the fund, not to the value-added of the fund, which makes the poor risk awareness of operation institutions and there is no relevant mechanism to avoid risks. Some enterprise annuity funds have even depreciated in operation, which has weakened the trust of enterprises.

3) Bookkeeping is not timely. Since the operation insti-

2021@ The American Computational Science Society. All rights reserved.

Available at http://www.asocse.org ISSN 1710-4068

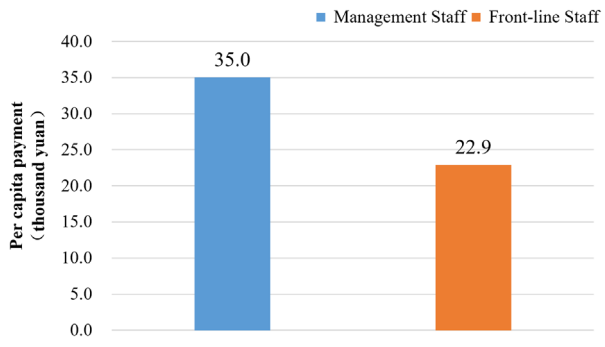

Fig.4 Comparison chart of per capita payment between management and fort-line staff.

tutions adopts the "head-to-head" model, that is, operating at the upper level, the prefecture-level organizations basically only have marketing functions. This also leads to the untimely bookkeeping of fund accounts, and enterprises and staff cannot keep track of the investment income situation at any time.

(3) Lag of regular reports and information disclosure of operating institutions [3]. On the one hand, the operation institutions cannot timely feed back the all kinds of information such as the investment income of the enterprise to the enterprise. The prefecture-level operation institutions have less information about enterprises, and some even think it is not necessary to save and feed back the relevant information to enterprises, which can be communicated between the head office and the enterprises. On the other hand, regular reports and information disclosure are too professional and complex for non-professionals to understand. And as clients, enterprises pay more attention to effectiveness and investment profits and losses, but the information in this area seems not transparent enough in relevant reports.

(4) A comprehensive and collaborative supervision system has not been formed [4]. On the one hand, the organizational structure of enterprise annuity is fuzzy. The responsibilities of the client, trustee, custodian, account manager and investment manager are still unclear, the division of labor is unclear, the ability of mutual restriction is poor, and there is a lack of effective supervision between each other. On the other hand, the enterprise annuity market needs multi-industry collaboration to provide services, involving the collaborative supervision of finance, taxation, social security, banking and insurance regulatory commission and other fields. However, the supervision agencies have a large industry span, poor communication, weak regulatory collaboration and weak regulatory force. Moreover, the supervision of the enterprise annuity funds can only be an act afterwards, and cannot be controlled beforehand, and it is difficult to achieve truly effective supervision.

4. Countermeasures and Suggestions

(1) Improve the awareness of enterprise annuity.

1) Grasp the issues of general concern to enterprises and staff, comprehensively and accurately publicize the policies and regulations of enterprise annuity, enhance the awareness of enterprises and their staff on enterprise annuity, and further improve the insurance participation rate. Take into account the balance between management staff and front-line staff insured personnel, improve the insurance participation rate of front-line staff, and make the per capita payment more reasonable.

2) Learn from advanced experience, organizing transportation enterprises and operation institutions to study in cities where enterprise annuity work is carried out faster and better, so as to better guide and promote the work of enterprise annuity in the city's transportation system.

3) Giving full play to the positive role of insurance companies, banks and other enterprise annuity operation institutions, and promote the work by holding enterprise annuity promotion meetings, symposiums and other forms.

(2) To realize the safety, integrity, value preservation and appreciation of the enterprise annuity fund [5].

1) Establish a good management mechanism, form a mutual restriction and clear responsibility and power relationship among investment operation institutions, focus on strengthening the construction of information disclosure system, and prevent the risk of related party transactions.

2) Improve the regular reporting and error correction mechanism. To ensure that the trustee can discover problems in time when risks occur, reports the situation to the client, and effectively compensate for the losses of the fund property at any time.

3) Establish a system to ensure the safety and integrity of the fund, and further standardize the investment management measures of the enterprise annuity fund. The operation institution and the enterprise shall determine the situation of value preservation and appreciation in the form of contracts. When the investment operation is profitable, operation institutions can share it. When the investment operation depreciates, operation institutions will make up the difference according to the bank's interest rate for the same period, so as to protect the vital interests of enterprises and staff, and strengthen the confidence of the enterprise in developing enterprise annuity work.

(3) Establish monitoring mechanism and strengthen department supervision.

1) Strengthen the monitoring of enterprise annuity operation institutions. Establish a special enterprise annuity supervision organization to form a regular inspection system before, during and after the event. Timely put

2021@ The American Computational Science Society. All rights reserved.

Available at http://www.asocse.org ISSN 1710-4068

forward modification and improvement opinions on the investment income, information disclosure and service quality of enterprise annuity operation institutions to ensure the standardized operation of enterprise annuity market. A regular reporting system shall be established, and operation institutions shall report the investment management situation of enterprise annuity to the human resources and social security department quarterly.

2) Establish a qualification certification system for operation institutions. Regularly report the performance, strength, reputation and investment operation of the qualified operation institutions, and urge operation institutions to improve their systems, strengthen their management and improve their efficiency.

3) Establish an assessment and evaluation system for enterprise annuity operation institutions to survival of the fittest. To formulate scientific and reasonable methods for changing the of operation institutions to ensure that the interests of enterprises and staff are protected from losses, and to encourage operation institutions to provide more high-quality, professional and efficient services for enterprises [6].

4) Simplify the contents of periodic reports to be timely, simple and clear at a glance.

References

[1] Q.Y. Zhang. Research on Reform and Innovation of Corporation Pension System. Nanjing University, 2019.

[2] X.M. Wu. The Expansion Dilemma of Enterprise Annuity and its Solution. Trade Fair Economy, 14(2021)97-99.

[3] N. Zhai. Research on the Incentive Effect of Occupational Pension on Staff's Professional Behaviour. Jilin University, 2015.

[4] L. Guo, Y. Zhou, T.Y. Su. An Empirical Study on the Impact of Ownership on Occupational Pension Participation. Management Review, 29(2017)239-254.

[5] H. Ran. A Comparative Study of Enterprise Annuity System and its Reference to China. Journal of Hebei Normal University Philosophy and Social Sciences Edition, 44(2021)126-136.

[6] F.Q. He. Several Problems Needing Attention in Establishing Enterprise Annuity in Social Organizations. Chinese Social Organization, 11(2013)24.

2021@ The American Computational Science Society. All rights reserved.