

Investigation of the Factors Influencing the Purchase of Personal Accident Insurance in Tier One Cities in China

Fanjun Zhou 

Newton South High School, Newton, USA
Email: stephaniezhou2005@gmail.com

How to cite this paper: Zhou, F. J. (2022). Investigation of the Factors Influencing the Purchase of Personal Accident Insurance in Tier One Cities in China. *Modern Economy*, 13, 519-531.
<https://doi.org/10.4236/me.2022.134027>

Received: March 2, 2022

Accepted: April 10, 2022

Published: April 13, 2022

Copyright © 2022 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).
<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

Personal Accident Insurance (PAI) has played an important role in the livelihood security of the residents in China, which is unlike the situation in most developed countries. But in recent years, it has been showing a significant reduction in the growth rate of the annual premium, and it is even -0.16% in 2020 compared to 2019. To study the decisive factors affecting the purchase of PAI, the willingness to purchase PAI and its influencing factors have been investigated based on the data collected from the residents of Shanghai, one of the most developed cities in China. A questionnaire was conducted to collect the data and the chi-square test of independence and histograms have been used to perform analysis. Our results indicate that PAI coverage in Shanghai is about 33%. The unwillingness to purchase PAI has been mainly ascribed to the residents' weak awareness of the PAI, due to either subjective reasons or objective reasons. Measures have been suggested to change the declining situation.

Keywords

Personal Accident Insurance, Low PAI Coverage, Chi-Square Test of Independence, Shanghai

1. Introduction

China has a large population in the world, accounting for about 18% of the world population. Along with strong economic development, its health issues have also attracted public attention, and China is marked as a country with an unbalanced economy and healthcare (Wang et al., 2019). Most developed countries have well-developed insurance systems. For example, the United States has three pri-

mary insurances, including health insurance, critical illness insurance, and disability insurance, that covers almost all the loss in the event of a potential accident. PAI is generally a niche market in these countries, and seniors and travelers are the main consumer groups (Anthem, 2018).

In contrast, China has a different situation. In principle, the current insurance system can provide almost all the insurances covering all kinds of potential loss. Chinese citizens are required to purchase one of the three public insurance programs, including UEBMI (Urban Employee Basic Medical Insurance), URBMI (Urban Resident Basic Medical Insurance), and NRCMS (New Rural Cooperative Medical Care Scheme), based on the type of their registered residence.

But despite the seemingly well-developed insurance system, there exist a lot of problems with low insurance coverage being the most prominent one. First, there are about 300 million migrant workers in China, whose population is approximately equal to that of the whole United States. Second, the take-out industry in China is booming, forming a large part-time occupational group. These occupations are at high risk for accidents because of the imperfect traffic rules and systems, and unsafe driving behavior (Zhang et al., 2006). Third, although the state mandates formal contracts between employers and employees, many companies do not execute them, which causes these wage earners to not even have basic health insurance. Finally, though many higher income groups have health insurance, they make a lot of business travel, domestically and internationally, and the accidental risks can be much higher. While they do have health insurance to cover the loss of potential accidents, the insurance coverage usually has a low cap which can be a fatal blow to the family when faced with severe accidents (Song, 2011; Wan & Xiao, 2018). Thus, PAI is very important in China due to its deficiencies in social development and the healthcare system.

However, based on the data from Xinhua News Agency and Beijing Intelligence Research Group (Xinhua News Agency, 2021), the PAI depth of China in 2020 is only about 0.116% (the total PAI premium income/total GDP = ¥117.41 billion/¥101,356.7 billion). Worse still, the willingness for purchasing PAI has been declining for the past three years with a 0.16% reduction in 2020 (Industry Information Network, 2021). Some research has discussed the status quo and deficiencies of PAI in China. Qiao studied the PAI depth in 2018 of 0.076% compared to the life insurance depth of 2.283% in Tianjin—a centrally administered municipality in China (Qiao, 2020). This data implies that, besides the low insurance coverage, there also exists some imbalance in accident insurance among different areas and social groups.

Some studies have been carried out to analyze the reasons for the low willingness to have PAI. For example, Niu and Sheng (2014) ascribed those to the problems with accident insurance products, the lack of professional staff, and the imperfection of relevance. Xiang and Li (2014) compared social security in the Chinese Mainland, Hong Kong (China), Germany, and France, proposing the lack of an accidental injury insurance system in China and analyzing the neces-

sity of establishing a similar system.

Previous studies discussing the current status and deficiencies of PAI in China have mainly based their conclusions on subjective inferences, but sometimes lack data support. In this study, a survey has been carried out to collect the public opinions and data to elucidate the causes of the low accident insurance in Shanghai. These data have been further analyzed using the chi-square test of independence and histograms to investigate the impact variables that play critical roles in citizens' purchasing of PAI. Shanghai is the most populous city in Eastern China with a population of over 26 million and is known as one of the tier-one cities. Its GDP (gross domestic product) has been ranking No. 1 for the past 40 years in China and ranks 8th in the world with an estimated GDP per capita of \$24,089 (Statista, 2021). Thanks to its huge economic volume and urban mass, this city has been the destination of many immigrant workers, constructors, and tourists. The evaluation of Shanghai citizens' accident insurance can be a good reference to understand the status and needs of PAI for citizens not only in China but also in some other similar developing countries.

This paper is organized as follows. Section 2 describes the methods used for the data collection and analysis and the variable measurement. Section 3 introduces the results of the survey conducted and the chi-square Tests of Independence employed. Section 4 discusses the reasons for the unwillingness to purchase PAI and suggests some measures to change the declining situation. Finally, Section 5 presents our conclusions.

2. Methods

2.1. Data Collection Methods

The data collection took place in Shanghai, China. The convenience sampling method was used due to the limit of sources. The target population was all adults living in Shanghai. Responders from various groups were collected, including people of different ages, marital status, education level, registered residence type, etc.

2.2. Variable Measure Methods

The survey was conducted through the online platform Wenjuanxing (or "Wen Juan Xing") website from Aug. 6th to Aug. 28th, 2021, and collected data on WeChat from Aug. 28th to Oct. 16th, 2021. Wenjuanxing is China's alternative online survey service provider to SurveyMonkey or Qualtrics. It, together with Sojump and Diaoyanbao, is one of China's top market research tools for research purposes (Mei & Brown, 2017). It can be accessed from mobile devices, laptops, and PCs. As of 2020, 78% of people in China aged 16 - 64 are using WeChat. The target groups are adults aged 18 and above. To elucidate the critical factors of the PAI purchasing willingness, a web-based electronic questionnaire was made to take the survey on Wenjuanxing. A wide range of variables was designed in Wenjuanxing to collect the target data, such as age, marital status et al. The system not only automatically completes the display of results and

the analysis, but also allows you to filter the groups based on the source time, region, and websites.

2.3. Data Analysis Methods

Traditionally, the data are collected by picking options on a five (or seven) point Likert ranking scale, which typically uses the following words: strongly agree, agree, neutral, disagree, and strongly disagree. However, the questionnaire has purposely been designed without the neutral option because too many citizens tend to choose the neutral one possibly to avoid any trouble, which may lead to biased results. For graphs in the data section, histograms are generated on Excel's built-in mapping software and are used to present the data of categorical variables. Chi-square Tests of Independence have been used to examine the relationship of categorical variables to the purchasing of PAI.

3. Results

Finally, the Cochran formula has been used to determine the sample size as follows:

$$n = Z^2 pq / e^2 \quad (1)$$

where e is the desired level of precision. It is 7.5% when we take a 92.5% confidence; p is the estimated proportion of the population that has the attribute in question. We don't have much information on the subject to begin with, so we're going to assume that 30% of the citizens have PAI based on our preliminary knowledge. This gives us a variability of $p = 0.3$; q is $1 - p$.

So we get $n = 143$. Actually, there have been a total of 175 responses received, in which none has been voided (see [Table 1](#)).

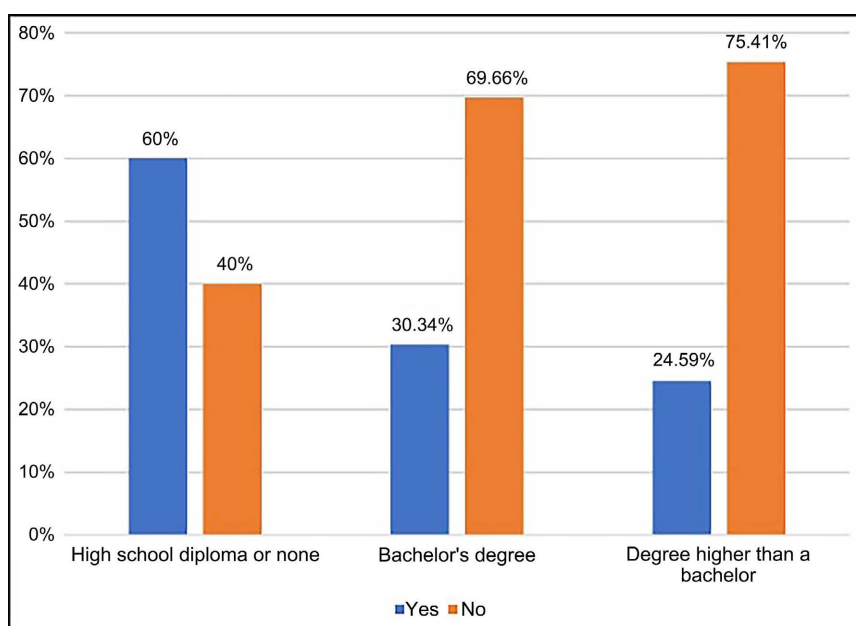
As presented in [Table 1](#), the data was collected from a wide range of Shanghai citizens, with all targeted categories, including age, marital status, registered residence types, gender, employment status, education level, and personal annual income. Each category has at least five responders responded. The variables collected are basic information of Shanghai citizens that help determine if the samples are reliable. Besides, they are possibly related to the willingness to purchase PAI (see [Figure 1](#)), which will be discussed later.

The age options are based on three age groups: young, middle-aged, and old. The options of personal annual income are based on the statistic average annual income of \$10,825 (converted to US dollars according to the Renminbi U.S. dollar exchange rate of 6.5) of Shanghai citizens in 2020. It shows that a small fraction of the responders (32.57%) has PAI. At the same time, the difference factor plays a great role in the purchase of the PAI. Another interesting point is that some factors have response rates not proportional to their population.

To analyze the critical factors affecting the purchase of PAI, the chi-square Tests of Independence were further employed. The data will be examined at the following three levels: personal status factors, socio-cultural influence, and external factors, respectively.

Table 1. Statistic data of responses.

		n	Percentage (%)
Gender	Male	85	48.57
	Female	90	51.43
Marital Status	Married	120	68.57
	Unmarried	50	28.57
	Divorced or widowed	5	2.86
Age	18 - 30	59	33.71
	30 - 50	96	54.86
	50+	20	11.43
Education Level	Received a high school diploma or none of the above	25	14.29
	Received a bachelor's degree	89	50.86
	Have a higher degree than a bachelor	61	34.86
Registered Residence Type	Shanghai Registered Residence	118	67.43
	Others	57	32.57
Employment Status	Employed Full-time	130	74.29
	Employed Part-Time	19	10.86
	Seeking Opportunities	20	11.43
	Retired	6	3.42
Personal Annual Income	Less than \$6186	43	24.57
	\$6186 - \$10,825	31	17.71
	\$10,825 - \$17,011	39	22.29
	More than \$17,011	62	35.43
Whether Purchase PAI or Not	Yes	57	32.57
	No	118	67.43

**Figure 1.** Effects of different education on possession of PAI.

3.1. Effect of Personal Status Factors on the Purchase of PAI

Each individual has different personal living status, which forms the basic conditions for developing his consciousness and behavior. Thus, it is helpful to analyze if the different personal status is related to the purchase intention of PAI. The data of each factor and the number of responders are extracted respectively for further analysis. The chi-square test of independence is used to perform the relationships. The results are shown in **Table 2**. The format of the result column is shown below:

$$X^2 (\text{Degrees of freedom}, N = \text{sample size}) = \text{chi-square statistic value},$$

$$p = p\text{-value}$$

where the significance level of 0.05 is used. The chi-square test of independence only applies to categorical variables. Therefore, the age and personal annual income are grouped to form categories like the options in the questionnaire.

The importance of each factor in personal status is evaluated by comparing the p -value with the significance level. The factor is regarded as significant if the p -value is smaller than 0.05. The smaller the p -value is, the more significant the corresponding factor is. It can be seen that age, employment status, and education level show significant relation to the purchase of PAI, while gender, marital status, registered residence type, and personal annual income don't. The responder has a greater chance of purchasing PAI if he or she is older than 50 years old, retired, or with a degree below bachelor's.

It shows that older people are more likely to purchase PAI than younger people. On contrary, the younger group shows less interest despite having more social activities and thus a high chance to get hurt. This is well according to the observation in the developed countries mostly because they are relatively vulnerable to accidents. To our surprise, people with higher education have lower rates of PAI purchases, as is clearly displayed in **Figure 1**. Only about a quarter of the citizens with a higher degree shows they have PAI while the high school diploma or below is with 60%. This result may be explained by several reasons which will be further discussed in the later section.

Table 2. Chi-square test of independence of personal status.

Factor	Result
Gender	$X^2 (1, N = 175) = 0.0490, p = 0.8249$
Marital Status	$X^2 (2, N = 175) = 4.2312, p = 0.1206$
Age	$X^2 (2, N = 175) = 11.7533, p = 0.0028$
Education Level	$X^2 (2, N = 175) = 10.5354, p = 0.0052$
Registered Residence Type	$X^2 (1, N = 175) = 0.2437, p = 0.6215$
Employment Status	$X^2 (3, N = 175) = 9.7136, p = 0.0212$
Personal Annual Income	$X^2 (3, N = 175) = 5.3674, p = 0.1468$

3.2. Reasons Analysis of Low PAI Coverage

Based on the questionnaire, a great fraction of responders (about 67.43%) claim that they don't have PAI. It is necessary to further analyze the reasons for this lower coverage of PAI. In the questionnaire, a question has been further designed to ask responders to pick all possible reasons from a deliberate list of why not to purchase PAI. Since people by nature are social creatures and they like to socialize with others, their society and culture can have a huge influence on the purchase decision of PAI. These options include citizens' subjective impressions of the accident insurance to somewhat objective conditions, f. e. the pressure to pay the premium. Also, the option "other" was provided to the responders for additional reasons. The results were summarized and shown in **Table 3**, from the least important to the most important. For a more distinctive comparison, the reasons percentage was also depicted in **Figure 2**.

Table 3. Claimed reasons for not purchasing PAI.

	Reasons for Not Buying PAI	Number of Responders	Percentage (%)
1	It's inauspicious.	15	12.71
2	Others: f. e. no knowledge of personal accident insurance; have good healthcare; have life insurance.	16	13.56
3	Income cannot afford it.	24	20.34
4	I believe that the actual dangers and accidents are of little chance and far away from me.	30	25.42
5	Accident insurance usually appears as a hoax, and the quality of insurance representatives is too poor.	35	29.66
6	Claim settlement.	76	64.41

*The reasons are ranked based on the percentage from least to most important.

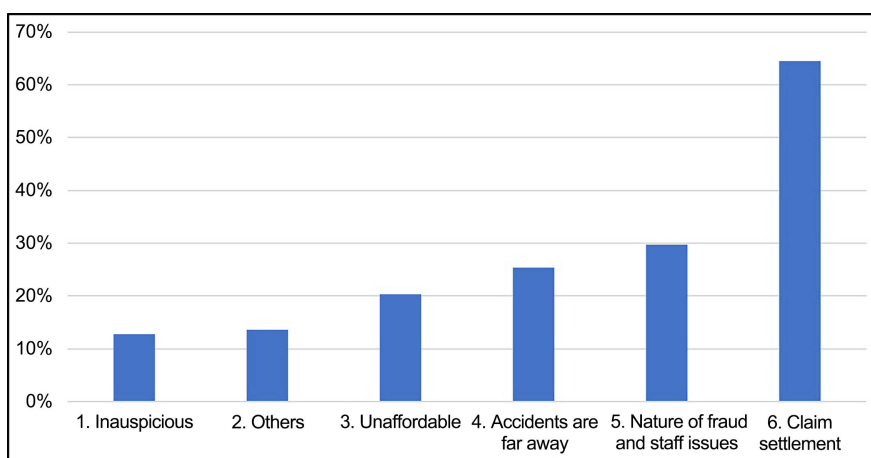


Figure 2. Percentage comparison of reasons for not buying PAI.

According to **Table 3**, more than half of the responses (64.41%) were especially unsatisfied with the claim settlement which is far more pronounced than the other factors. This is not difficult to understand: the clients purchase PAI to lessen the loss of uncertainty; their confidence gets most hit if there is some problem with the claim settlement. The claim settlement issue has been further ascribed to the complex claim procedure and bureaucracy which intimidate the potential purchasers. It is no surprise since most of the insurance companies in China are state-owned companies, notorious for their low efficiency and bureaucracy. Another with the claim settlement is the false or exaggerated message and spreading resulting from a repudiation of claims.

Another factor, accounting for 29.66% of responses as shown in the second last line, is the bad impression of PAC as a hoax. The responders claimed that the insurance representatives, often under high-performance pressure, are eager to reach a contract and tend to exaggerate the loss coverage or sometimes deliberately mislead it. These false or misleading messages together with representatives' unprofessional performance have led to a poor public's impression of PAI.

About 25.42% of responders believe that the actual dangers and accidents are of little chance to happen to them. This is a cognitive issue, which reflects that Shanghai citizens' insurance consciousness is not strong for a group of people. These responders show overconfidence or blindly confidence in uncertainty. Having accident insurance will bring bad luck also appears to be a relatively small but noticeable reason, accounting for about 12.71% of the response. This reflects that some old or traditional concepts still play a role in their decision.

3.3. The Prime Determinant of Low PAI Coverage

Two findings so far have been brought to our attention. The first one is that unsatisfied settlement has been revealed to have a striking effect on purchasing PAI. Insurance companies sometimes do violate the filing clauses and rates requirements due to business pressure or poor-quality control (Zhao & Ren, 2021), especially years ago. But more often today, this happens when there is a big gap between the coverage imagined by the clients and the coverage identified by the insurance company. Most clients are not aware of it until initiating a claim, and then they get very disappointed at being rejected and feel trapped by the insurance company. When they tend to complain about this to the persons around them, it finally becomes the butterfly effect. The situation has been worsening in recent years since more people release their anger online. At the same time, the traditional media and social media, to attract the public attention, tend to make use of and exaggerate the case, leading to a misleading hot topic. These false or exaggerated news and stories have largely affected Chinese people's perception of the personal insurance industry in a negative way and created a bad atmosphere. The second is that, contrary to intuition, citizens with lower education have a relatively higher coverage of PAI. This might be explained for several reasons. For example, people with lower education are usually in occupations with higher risk, which motivates them more likely to have PAI to cover poten-

tial accident loss. Contrarily, people of higher education tend to ignore the potential accident loss due to the nature of work and the better health insurance provided by their employers.

Based on the findings above, we conjectured that residents' awareness of PAI could be a critical factor relating to the willingness of purchasing PAI. To elucidate it, we will check in the following section if there is any correlation between PAI awareness and PAI purchase.

Table 4 shows statistics of the familiarity with PAI among responders. As presented in **Table 4**, 79.43% claimed that they are unfamiliar with the current accident insurance policy. In contrast, only 20.57% show somewhat or higher familiarity with PAI, of which approximately 3% are very familiar. This value corresponds well with 32.57% PAI coverage among responders.

In **Figure 3**, we show the statistic of satisfaction with the PAI system from responders who didn't buy any PAI. About two-thirds (66.49%) were not satisfied with the current PAI system. Based on **Table 3** and its analysis, it is a reasonable deduction that most dissatisfaction comes from what they heard from the news, circulating messages, or even first impression since they haven't had a client relationship with the insurance company. It should also be mentioned that this 69.49% dissatisfaction is not far from the unfamiliarity rate of 79.43%. In contrast, the somewhat and above satisfaction rate (30.50%) matches well with the familiarity rate of 20.57% and PAI coverage of 32.57%. In other words, the low familiarity rate of 20.57% generates relatively higher satisfaction of 30.50% and a much higher PAI coverage of 32.57%.

Based on these results above, familiarity seems to have a great influence on the purchasing willingness of Shanghai citizens. To further verify this, the chi-square Test of Independence was used to test the relationship between the purchase of PAI and familiarity with it. A significance level of 0.05 was adopted.

The results of the relationship between the purchase of PAI and the familiarity with it by the chi-square Test of Independence are shown in **Table 5**. The values in columns 3 & 4 are explained as follows: the observed cell totals, (the expected cell totals) and [the chi-square statistic for each cell]. The chi-square statistic thus got is 11.2756, with the p -value being 0.0103. This p -value of 0.0103 is significantly smaller than the significance level of 0.05, implying that there is a firm correlation between familiarity of PAI and the purchase of PAI. The more familiar with PAI the residents are, the more willing to purchase PAI they are.

Table 4. Familiarity with PAI policies and systems among responders.

Familiarity with the PAI Policies and System in China	Number of Responders	Percentage (%)
Very unfamiliar	43	24.57
Somewhat unfamiliar	96	54.86
Somewhat familiar	31	17.71
Very familiar	5	2.86

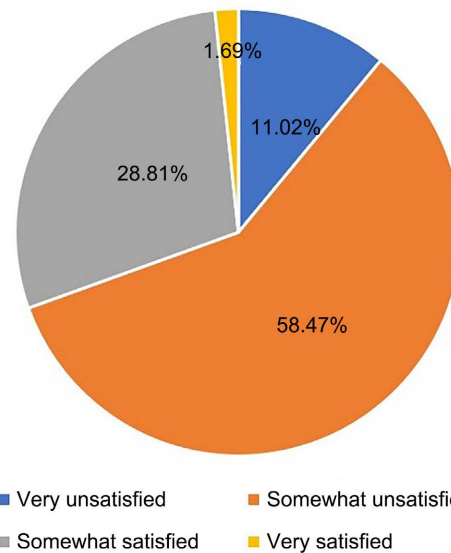


Figure 3. Percentage of satisfaction levels with the PAI system for responders who don't have accident insurance.

Table 5. Familiarity of PAI vs. purchase of PAI.

	Purchase of PAI			Total
	Yes	No		
Familiarity	Very Unfamiliar	1 (1.63) [0.24]	4 (3.37) [0.12]	5
	Somewhat Unfamiliar	18 (10.10) [6.19]	13 (20.90) [2.99]	31
	Somewhat Familiar	26 (31.27) [0.89]	70 (64.73) [0.43]	96
	Very Familiar	12 (14.01) [0.29]	31 (28.99) [0.14]	43
	Total	57	118	175

4. Discussion

Based on the findings above, it shows that familiarity (or more precisely awareness) of PAI plays a critical role in deciding the purchase willingness. From a broad perspective, this familiarity or awareness includes the following: 1) the awareness of insurance importance, 2) correct understanding of PAI without prejudice or being misled, and 3) related basic knowledge about PAI.

One of the reasons for this unfamiliarity is that the learning system in Shanghai does not effectively provide its citizen with enough insurance-related knowledge. Or more importantly, it doesn't well raise people's awareness of purchasing accident insurance even though Shanghai citizens have received relatively higher education levels compared to the rest of China. A solution to address this issue is to add insurance-related courses and activities in schools. China has an all-inclusive and comprehensive educational system: schools for compulsory education, normal colleges, colleges for vocational and technical education, the university of the elderly, etc. All these institutions can play an important role in

raising youngsters' and older people's awareness of insurance importance. At the same time, it can also be realized by connecting with international education. To achieve convergence with international education, we should strengthen the study and exchange with foreign insurance education, actively introduce the advanced experience of foreign insurance education, continuously improve the level of China's insurance education in the construction of teaching materials and academic research, and cultivate international talents who can adapt to the fierce international competition (Xing, 2009).

In addition, for employees' PAI, a more effective way is to work with the employers, either directly reaching them or with the help of industry associations or local governments. First of all, the employer generally has more resources and the ability to take action. Second, it facilitates the operation and agreement, making the purchasing process more convenient. Thirdly, group purchasing (group agreement) means more bargaining power and lower insurance premiums. Finally, for companies with relatively high-risk accidents, such as Meituan Takeaway (a rapidly expanding giant food delivery company in China), the group agreement can effectively reduce operational risk.

What's more, insurance companies can be closer to the masses too. In big cities like Shanghai in China, most citizens live in apartment complexes managed by a property management company. Insurance companies can have regular presentations and events in the community to increase awareness and dispel the misunderstanding of PAI.

At the same time, the authority of insurance or associate can play an important role in regulating the current insurance policies. For example, insurance companies usually provide their clients with contracts with detailed information, but it is often too complex or lengthy so most time the clients don't read them carefully (Health Affairs Forefront, 2015). Devils are in the detail. The dispute can arise when there is a gap between the coverage imagined by the clients and the actual coverage hidden in detail. Other main issues in the insurance industry include low payout rates, a wide range of rate fluctuations, high commissions, and unregulated sales practices, among others (Guangzhou Daily, 2021). For this, the authority can regulate the insurance companies to make their contract brief and easy to understand. Any violation or fraud should be exposed publicly besides holding the responsible person accountable to increase the awareness of clients' rights protection. In China, CBRIC (China Banking and Insurance Regulatory Commission) is responsible for the unified supervision of the insurance industry under laws and regulations, and to maintain the legal and sound operation of the insurance industry (The Central People's Government of the People's Republic of China, 2018). In October 2021, the agency issued the "Accident Insurance Business Regulation" to phase out accident insurance products with too low payout rates (CCTV Finance, 2021).

In addition, to ensure that insurance industry personnel handling such procedures have sufficient experience, it's important to strengthen the communica-

tion between insurance education departments and insurance regulatory departments, so that insurance regulatory departments can provide a good environment for the development of insurance education in terms of laws and policies (Xing, 2009).

Finally, it has to be mentioned that this study has some limitations. First, the convenience sampling method was used to collect data which may lead to bias in results. Second, the limited number of samples due to limited funding and resources may cause bias. Third, the questionnaire has not been equally reached the target groups, like prisoners, old people et al. Finally, some target groups are unlikely to take the survey due to overwork, privacy concern et al.

5. Conclusion

In this study, a survey has been conducted on Shanghai residents' overall possessing PAI and the factors affecting their decisions. Based on the results, it's found that the PAI coverage is about 33%, a relatively low value when considering the actual necessity. Further analysis on the reasons that hinder citizens from purchasing PAI has been carried out. It is revealed that the top two reasons are the claim settlement and the bad impression on PAI, accounting for 64.41% and 29.66% respectively. The underlining determinant factor of the lower PAI coverage was studied in detail using the chi-square test of independence. The significant small p -value of 0.0103 provides convincing proof that the low PAI is mainly due to the weak awareness of PAI. In other words, increasing citizens' awareness can effectively improve the chance to have the necessary PAI.

To ameliorate such a situation, a series of measures have been suggested to increase the awareness of insurance importance, correct understanding of PAI, and related basic knowledge about PAI. In addition, authorities should be responsible for supervision in a legal sense for this purpose, and at the same time, promote citizens' protection of their rights.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

- Anthem (2018). *5 Reasons to Consider Personal Accident Insurance*.
<https://www.anthem.com/blog/health-insurance-basics/five-reasons-to-consider-personal-accident-insurance>
- CCTV Finance (2021). *China Banking Regulatory Commission: Strengthen the Supervision of "Accidental Injury Insurance" and Phase out Products That Are Too Low and Unreasonably Priced*.
<https://finance.cctv.com/2021/10/14/ARTIzNQk2xhYabVmwbEBlrQg211014.shtml>
- Guangzhou Daily (2021). *Accidental Injury Insurance Ushered in Strong Supervision on the Problem of Low Payout Ratio and Abnormally High Commissions*.
https://gzdaily.dayoo.com/pc/html/2021-10/14/content_876_771663.htm
- Health Affairs Forefront (2015). *Getting Enrolled Isn't Enough: The Importance of Teach-*

- ing Consumers How to Use Health Insurance.*
<https://www.healthaffairs.org/doi/10.1377/forefront.20151019.051285/full>
- Industry Information Network (2021). *In 2020, China's Personal Accident Insurance Premium Income Fell for the First Time, and Compensation Expenditure Reached a New High Figure.* <https://www.chyxx.com/industry/202103/937634.html>
- Mei, B., & Brown, G. T. L. (2017). Conducting Online Surveys in China. *Social Sciences Review Computer*, 36, 721-734. <https://doi.org/10.1177/0894439317729340>
- Niu, S., & Sheng, C. (2014). Investigation and Analysis of Accident Insurance Products. *Management & Technology of SME*, 7, 210.
- Qiao, X. (2020). *Research on Influencing Factors for the Willingness to Purchase Accident Insurance in Tianjin.* Master Thesis, Tianjin University of Finance and Economics.
- Song, Z. (2011). Build an Accidental Injury Insurance System That Covers the Entire Population. *Economic Research Reference*, 66, 29-30.
- Statista (2021). *Per Capita Gross Domestic Product (GDP) of Shanghai, China from 2010 to 2020.* <https://www.statista.com/statistics/802375/china-per-capita-gdp-shanghai>
- The Central People's Government of the People's Republic of China (2018). *Explanation of the State Council's Institutional Reform Program.*
http://www.gov.cn/guowuyuan/2018-03/14/content_5273856.htm
- Wan, X., & Xiao, P. (2018). The Deficiency and Perfecting Countermeasures of Medical Accident Insurance in China. *Chinese Medical Ethics*, 31, 83-86.
- Wang, Y., Zhang, Y., Ma, C., Jiang, Y., Wang, X., Ma, S. et al. (2019). Limited Effects of the Comprehensive Pricing Healthcare Reform in China. *Public Health*, 175, 4-7.
<https://doi.org/10.1016/j.puhe.2019.06.014>
- Xiang, J., & Li. X. (2014). Research on Establishing a National Accidental Injury Insurance Guarantee System. *Finance & Economy*, 16, 114-116.
- Xing, T. (2009). Discussion on Insurance Culture and Insurance Education in China. *Insurance Research*, 11, 16-21.
- Xinhua News Agency (2021). *In 2020, China's GDP Is Finally Verified to Be 101356.7 Billion Yuan.* http://www.gov.cn/xinwen/2021-12/17/content_5661661.htm
- Zhang, W., Huang, Y., Rotting, M., Wang, Y., & Wei, H. (2006). Driver's Views and Behaviors about Safety in China—What Do They NOT Know about Driving? *Accident Analysis and Prevention*, 38, 22-27. <https://doi.org/10.1016/j.aap.2005.06.015>
- Zhao, F., & Ren, Z. (2021). Construction Accident Insurance Business Risks and Countermeasures. *China Insurance*, 8, 46-49.