A FUNDAMENTAL RESEARCH ON
THE INHERENT DEFECT INSURANCE IN CHIHA

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Abstract: During the process of promoting Inherent Defect Insurance (IDI) in China, the following questions are needed to be answered. Why the application of IDI in China is necessary? What are the main barriers to promote it in China? What steps should be taken? So this study investigated the application situations of IDI in eighteen provinces or cities in China by the questionnaire surveys and field studies. The results indicated the achievements and difficulties in some regions where an experiment in respect of IDI was carried out. These results will be the bases of the following questionnaire survey.

Keywords: China; Inherent Defect Insurance; application

1 Background

1.1 Why Inherent Defect Insurance is necessary in construction quality management

The purchasers of building products need the guarantee on the product quality in terms of normal use. However the building product is a special product. There is much uncertainty in the guarantee on the product quality and payment paid in time. Because both the owners and construction companies begin to bargain when there only are designed documents, the trade of building products is not a simple one as one hand goods while the other money (Deng Xiaomei,2003).

Moreover, in contrast to the products in other industries, such as car manufacturing, a new building is the product of a large number of different trades in which each employing workers are low-skilled and fluid population, and sometimes work in bad climatic conditions. So the probability of achieving zero-fault performance in the building industry is virtually small.

The credits and guarantee systems are therefore necessary for the construction industry market to work, which can explain why Inherent Defect Insurance has been existed and developed in many countries, such as France and Spain, for several years.

Because of the influence of command economy, the economic tools, such as engineering insurance, are rarely used in China before. The government answered for making up the loss of buildings’ inherent defects. Usually when there is the damage, the owners firstly contact the company responsible for the defect maintenance and request them to repair their errors. But this is not always possible, because the company may no longer exist, and even if the contractor is still in business he may not have enough resources or the willingness to repair the defect. To overcome this problem it may be worth while for the builders to depend on products liability insurance to in charge of defects maintenance. But legal liability policies generally exclude the defective structure itself and cover only consequential loss, and require the owner to provide proof of negligence. This solution may be logically sound, but it leaves the owner with a few problems.

- First of all, He must find out who is responsible for the loss. But it is not always easy and may take some time.
- There may be several levels of liability for defective structure, resulting in a dispute in the claim, which is often taken to court and is in any case a long-drawn-out affair. During this time the damage will not have been repaired.
- Even then it is not certain that the responsible contractor will still be in business. He is solvent or he is still insured. Finally, cover limits may prove inadequate to carry out all the repair work needed.

To overcome the above difficulties, the owners may choose to take out a policy covering him against loss due to major structural defects over a long period enough (SYDNEY,2001).

Now the IDI is carried out into practice, for the goal of solving the problems, e.g. claims for the loss from
engineering quality defects (Liu Meixia,2003) and unpaid construction payments in China(Inner Materials of Ministry of Construction P.R.China,2004) which are the real challenges existed in the engineering quality control system.

1.2 The introduction for Inherent Defect Insurance

In France, the Civil Code gives a legal system for decennial liability: There are the articles 1792 & 2270. This responsibility concerns the builders i.e. the contractors, the architects, the engineers and the manufacturers. It applies to all types of construction works. It is a strict responsibility for ten years from practical completion. This responsibility targets structural defects or non-structural defects if works are “unfit for their intended purpose”. In addition, there is a 2 years-guarantee from practical completion of the works for building equipment defects. From 1978, the French Insurance Code says that this responsibility must be insured by a compulsory insurance for building works. Moreover, all developers and owners must also take an insurance policy for the decennial damages. The history of IDI development in France shows that IDI is one of the major methods of assuring construction quality for enough long time (SYDNEY2001).

Obviously IDI is a perfect compulsory insurance product which has been used for about thirty years (Xu Bo, Zhao Hongyan2004). Through the application of IDI, guarantee to keep the building in good repair has been done. Meanwhile we can know some other information of the responsibilities, insurance and quality inspection in engineering quality management in France. Therefore it is the first step for China to learn the experiences from France and Spain, in which the compulsory IDI has been operated for many years. How to overcome the difficulties they confront is another vital research subject.

However, what we most concerned is relationship of the current system of construction quality control and the new IDI in China. IDI is not coordinated with the current system of construction quality management in many aspects, so there exists some questions e.g. what the barriers to harmonize the new IDI and current quality system are, what is the main difficulties in the process to IDI application, what are the detailed programs and measurement, what policies are useful for our government, and which are not resolved before are the problems we should explore in this study.

1.3 Definition of the Inherent Defect Insurance

The Inherent Defect Insurance (IDI), which is also named decennial insurance, is a kind of guarantee insurance on product. For IDI, the insured people (the owners) should bear the responsibility of economic compensation, because the building products they sold to the consumers do not have the functions regulated in the sale contract for the reason of investigation, designing and construction etc. For IDI, the policy holder is the development merchants or estate owner, the insured people is the buyer of the building product, the insurer is the insurance company, and the insured term is ten years (Research Team of Ministry of Construction P.R.China,2004). After the insurance company has compensated the loss resulted from the defects by subrogation of compensation in the law, the insurance company has the right to make a claim from the design department and construction company if the quality defect is caused by them. And then if the design department and construction company has bought the policy of design responsibility or construction responsibility, the compensation will be given by the insurers. This insurance works in two triggers. The first one is the owner damage cover. Which is principle to pay first in order to protect the consumer’s benefits before any search for responsibility; the second is the contractors/engineers responsibility insurance in order to maintain contractors/engineers involvement (Li Yuquan, Bian Jiangsheng,2004).

In this paper, the author defines the Chinese IDI as ten-year responsibility insurance. The construction department, investigation department, design department and construction companies buy the policy of IDI jointly, and the premium is shared by the several units proportionally. The insured responsibilities include quality defects, the agent responsibility of investigation department, design department and constructional companies. In case the certain event happened, the insurance company compensates the policy holder directly, and has no subrogation of compensation in law.
2 Design of Research

The survey team will carry out the research of IDI in the following four phases.

- collect the related information on IDI system
  IDI in some countries is compulsory insurance, such as France, Spain, Italy, Finland, Australia-Victoria etc. And there are some other countries with legal builder’s responsibility, without compulsory decennial insurance but with IDI market including Belgium, united Arab Emirates, Japan etc. The Survey team wants to know the regulations of IDI: why they are compulsory or not and how they work on construction quality control.

- carry out preliminary investigation
  The questionnaire was developed which especially focus on people’s attitudes toward promoting IDI application in China and what had been done to promote it. These questionnaires were sent to the construction departments of the selected cities and provinces. The Survey team demands them to report feedback to the Ministry of Construction.

- The survey team will analyze the result of investigation. The barriers and challenge of promoting IDI system in China will be found out, as well as the benefits of applying IDI system. The issues which are needed to study further were found out. The second round questionnaire will be designed to further investigate the issues. The research team plan to study the opinion for IDI collected from the former surveys with quantitative data analysis and find out the difficulties and influence factors.

- the results of this study will in one hand, assist revising regulations in the experimental regions, adjust the policies e.g. choose the experimental region from the views of its geographic position and its economic development level; on the other hand, propose the procedures and strategies to solve the main barriers in the application of IDI in China, e.g. the entry of institution of construction quality control institute, clarify the role of government in promoting IDI system, the detailed procedures of applying IDI system.

3 Process of Research

This paper mainly describes the first and second phase of the research process. Because there is no relevant study in China for IDI, this study widely carries out preliminary surveys in the whole country and important cities which are selected as experimental cities, the detailed steps of study are as follows:

- collected the related information of the rules and laws of other countries; reviewed papers issued on IDI; got the primarily understanding of running the IDI system and the basic market environment etc; got in touch with the biggest risk management institution of IDI in France-French International Inspection Bureau; and got to know the operation process of applying IDI system in a construction project.

In August, 2005, Ministry of Construction and China Insurance Regulatory Commission jointly issued the document of “The Suggestions to Advance the Engineering Insurance” which included the development of new insurance policies and promotion of IDI in China. The document mentions about several kinds of engineering insurance which will benefit the construction project quality control, including Contractor's all Risks, Erection all Risks, Personal Accident Insurance, Inherent Defect Insurance. The first three kinds of insurance were used for several years in China. So what we concerned mostly was how to promote IDI in China. Ten cities including Shanghai, Qingdao and Xiamen were selected as the experimental cities to carry out IDI.

Preliminary survey: in order to know the general understanding on IDI, the attitudes of promotion IDI, and the difficulties encountered by the experimental cities, several questions are used to collect the information on the following items:

- What did the local construction administration institutions do for the promotion of IDI?
- What difficulties and obstacles were encountered in the promotion of IDI?
- Why IDI was not carried out in some other regions?

Sent out the questionnaire and collected the feedback: Because the achievement of the study will be directly applied for Ministry of Construction P.R.China to make the execution regulation and the suggestion to promote IDI. So the questionnaire will be send out entitled with government documents from Ministry of Construction to the provincial and selected cities’ construction administration. Quickly feedbacks were required. According to the condition of experimental region and cities’ features, we send out 18 copies of questionnaires and take all of them back in the given time. With the consideration of geographic environment
of the cities, economic development level, we choose the following 18 cities: Qingdao, Xiamen, Shanghai, Beijing, Tianjin, Chongqing, Guizhou, Shanxi, Ningxia, Gansu, Shandong, Anhui, Neimenggu, Hainan, Henan, Guangxi, Jilin and Xinjiang. The provinces or cities selected can reflect general situation of the whole country.

Field study in the several important selected cities- Qingdao, Xiamen, Shanghai. The main way to carry out field study is to held several workshops with the relevant people who are from the local construction administration, the contractors, the architects, the engineers and the manufacturers. There are altogether about 30 attendants to discuss the topic on IDI in every city, through which we can gather the information on the attitudes toward IDI application and why they hold such opinions.

The research team also visited one construction site belong to an estate owner who had bought IDI in Xiamen, where we got to know much important information, including insurance policy, procedure to take quality inspection, influences on sale speed of the house, and the whole profit increased by IDI.

4 Results of the Survey

Through the questionnaire and field study, we come to several useful conclusions as follows.

The location differences of the regions, the gaps in economic development level and the understanding extent for engineering risk and insurance are the main influence factors to promote IDI in China. And we need to make a further analysis on the relativity among these different factors.

The major difficulty to promote IDI is that there is no clear and definite regulation in the current Construction Law. Because of IDI, some former regulations in several aspects should be broken up, such as compulsory insurance, permit of institution and management process, which are still not coordinated with the present system perfectly. Then we should study on how to add the appropriate contents in the Construction Law during its revising, which can provide the good conditions for the promotion of IDI later.

Command economy system had been applied in China for many years. Almost all the companies belonged to the government in the past. The government will pay for any loss as a result of uncontrolled construction risk. So people had no concept of insurance for a long time. They didn’t know what is engineering insurance, not to say IDI at all. It will take some time for them to accept the new concept. A training schedule of IDI may be necessary.

In most regions, the insurance companies argued that constructional risk has the professional feature and they lack of professional human resources and cannot control the constructional risk, which result in that they are not able to offer the consulting service. We are not sure that these can reflect the view of most of insurance companies. The insurance companies are willing or not, able or not to introduce the intermediate institution of engineering risk management to solve the problem, is still need to make a further research.

The premium for IDI is not included in the present budget regulation or engineering project cost priced by the detailed list. The builders haven’t enough money to pay for the new IDI.

The related departments of construction engineering hold the negative attitudes toward the promotion of IDI. These several departments are not willing to accept the increasing costs in several aspects including IDI premium, and are not positive to buy IDI policy, through which we should make further investigation for the opinions of insurance companies, and design the better IDI product to satisfy the related agents.

If we make the premium for IDI according to the technique risk of construction building, the more new technique and new materials are used, the more premium are needed, which finally will bring out negative influence on the promotion of new techniques and new materials in construction.

From the above, we make sure that these survey results can make the second round questionnaire survey explicit and detailed. Moreover the detailed questionnaire can make up the shortages of this survey e.g. we can design the open questionnaires to help us to get much more information, and we can design some formative questions which can help to deepen our understanding. So the further research on more cities and on deeper subject is necessary.

5 The Following Research Plan-the Way to Design the Formatted Questionnaire

If we can make quantitative analysis on some influence factors, we will get the more accurate and valuable conclusions Therefore we plan to adopt the formative questionnaire to realize the above objective. According to the previous study result, list the possible questions related to IDI, and ask for experts to revise. The whole questionnaire survey is composed of five parts:
A. The questions for the general understanding of IDI  
B. The questions for the constructional companies’ understanding and using of IDI  
C. The questions for the construction quality management system and IDI  
D. The questions for the construction companies  
E. The questions for the agents

After the preliminary design, we will ask some local Construction Administrations, investigation, design and constructional companies to try to answer the questions firstly, then revise it again and get the final questionnaire.

Aiming to get the results that can be generalized, we plan to choose more than 15 provinces or cities in different economic levels, send out 300 copies of questionnaires and take back at least 200 copies of them. To take back questionnaire efficiently, we plan to ask the local Construction Administrations to assist in organization of the questionnaire survey.

6 The Summary

It is a vital task in the reform and development of Chinese construction industry to promote the engineering quality assurance system (Xu Bo, 2002). The economic method is needed in engineering project management and construction quality control in the near future. So it is very significant for engineering quality manager to study and apply the IDI in China. The preliminary studies has found some factors to block the application of IDI, and the questionnaire survey will collect much more information on the influence factors which will be analyzed by the statistic methods. Finally the study will answer the questions, e.g. how to promote IDI in China? What is the theory of IDI application in China?

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