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# The cause of highly frequent commercial bribery during the invitation and submission of bids for engineering projects and the counteraction——the analysis based on WSR methodology

**Tiecheng Yan, Yuanfang Lv**

Department of Civil Engineering, Long Dong University, Qingyang, Gansu, 745000

**Abstract:** Commercial bribery is found to occur very frequently during the invitation and submission of bids for engineering projects. However, existing research study on such topic lacks sufficient diversity in terms of the approach taken for analyzing the problem. In this study, we interpret the high occurrence of commercial bribery based on the “Wuli-Shili-Renli” (WSR) framework. Using this approach, the constraints from the social environment, the defects of the current system, and the lack of morality for the participants of the invitation and submission of bids can be well comprehended from the following three aspects: Wuli, Shili, and Renli. With these understandings, proper counteractive strategies can be proposed accordingly.

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## 1. Introduction

With the acceleration of the urbanization process and the expansion of construction scale in China, and at the same time, the issue of commercial bribery has become increasingly severe in the field of construction engineering. In particular, the corruption during the invitation and submission of bids for engineering project has been widely criticized from the public. Such problem has drawn great attention from the central government. On July 8<sup>th</sup>, 2009, the General Office of the State Council and the General Office of the Central Committee of the Communist Party of China has jointly issued the “Opinions on the Special Rectification of Outstanding Issues in the Field of Engineering Construction” which aims to bring together the strengths from several central ministries and commissions for resolving the corruption issues. Under such context, special rectification operations have been launched across the entire country to resolve the illegal actions and crimes in the field of engineering construction (Chunfang Huang, 2010). According to the report from “Hunan Daily” on Feb 24<sup>th</sup>, 2010, the construction administrative departments, the discipline inspection offices, and the supervisory authorities at all levels of the province have accepted a total of 499 reports reflecting the problems in the field of engineering construction, since the start of the special rectification operation for addressing the outstanding issues in the field of engineering construction. Among these reports, 348 cases were filed on report, 151 cases were confirmed guilty, 88 personnel were subjected to party and administrative disciplinary sanctions, and 50 personnel were transferred to the prosecuting authorities. These numbers reflected extremely severe commercial bribery during the invitation and submission of bids for engineering projects. Furthermore, the commercial bribery in the bidding process of engineering projects often involves the illegal transaction of huge amount of money. For example, Liu Zhongshan and Zheng Dao, being the director and deputy director of the Department of Transportation in Sichuan Province, accepted a bribery of 10 million RMB in an engineering construction project. In



another more astonishing case, Xing Hu, being the deputy director of the Department of Transportation in Yu'nan Province, accepted a bribery of 40.29798 million RMB. These real-life cases urge that the commercial bribery during the invitation and submission of bids must be addressed properly. In addition, the invitation and submission of bids for engineering projects often engage a large number of people coming from a diverse range of fields including the government officials, the construction teams, the contractors, the consultants, the tender agents, and the bid evaluation experts. The "illegal transaction" can occur between any pair of these entities. Therefore, it is extremely difficult to resolve the commercial bribery issues in the field of construction project bidding. To fully eliminate such issue, we should treat the commercial bribery phenomenon as a systematic project and resolve it over a long duration instead of taking temporary high-pressure rectification operations. Before taking the appropriate counteractive approach, we must identify the "causes" of the bribery issue first. So, why do commercial bribes occur so frequently during the invitation and submission of bids for engineering projects?

## **2. Selection of analysis tool: from the perspective of WSR methodology**

Based on the results of existing theoretical studies, past researchers often attribute the frequency occurrence of commercial bribery to the defects of legislation and the incomplete regulations. It turns out that such research concept is too narrow-minded. As the old Chinese saying goes, "laws alone cannot carry themselves into practice". To put a complete set of regulations into practice still requires dedicated human efforts, and the social environment is the base ground on which the regulations can be implemented successfully. Whether a specific regulation can be implemented in practice is closely related to its application environment. Based on this, the deficiencies of past studies can only be overcome by performing a specific study around the invitation and submission of bids itself. Different from the studies focusing on a single element exclusively, Weiye Zhu (2008) stated in his study that "the systematic perspective requires one to analyze all problems dialectically by considering the universal connections and following the holistic thinking. Specifically, one should always focus on the integrity and long-term effectiveness of the system operation whether he is analyzing the setting of each subsystem or the integration and coordination of the entire system." Being a branch of the systems methodology, the WSR methodology utilized in this study was developed gradually over a long duration (Jifa Gu and Xijin Tang, 2000). Back in March 1994, the famous Chinese scholar Jifa Gu visited Japan and discussed with Sawaragi Yoshikazu and Yoshiteru Nakamori on the cooperative research of systems methodology. Based on the mutual recognition of oriental cultural background, they together studied and developed the "Oriental Systems Methodology". Later in 1994, Jifa Gu visited the Centre for Systems Studies at the University of Hull in UK and introduced the ideal of oriental systems methodology to the British scholars. After two months' communication and exploration, Jifa Gu and Zhichang Zhu proposed the following oriental systems methodology: "Wuli-Shili-Renli" (WSR) systems methodology. In the WSR methodology, "Wuli" refers to the mechanism of how objects move. In other words, "Wuli" focuses on authenticity and explores things which exist in reality. "Shili" refers to the principles of working around objects. "Shili" focuses on resolving the issue of how to arrange the equipment, materials, and human labors. It answers the question of "how to do" by applying the knowledges in operations research and management science. "Renli" refers to the principles associated with human beings. It often requires the knowledges in the field of humanities and social sciences to address the question of "what am I expected to do" and "what is the best way to do". In general, "Wuli", "Shili", and "Renli" are mutually interdependent and inseparable. Only by taking into account of these three elements can we realize the best performance of the system as a whole. Compared to the traditional systems analysis method used by Western researchers, the WSR methodology, with the inclusion of "Renli", brings great improvement in the field of systems methodology. The understanding and implementation associated with "Wuli" and "Shili" must incorporate human beings. Furthermore, the coordination of interpersonal relationship is the core component of "Renli". Considering these factors, the connotation of system thinking is enriched substantially by the proposition of WSR systems methodology. Therefore, the WSR

methodology is selected as the analysis tool in this paper in order to cover the deficiency of existing research methods. By applying the WSR analysis method in our study, “Wuli” is comprehended as the social background and material basis which restrict the design and effectiveness of the system; “Shili” is comprehended as the specific rules and regulations in the invitation and submission of bids; and “Renli” primarily refers to the ethical standards, personal integrity, view of world, and outlook on values of the entities participating in the invitation and submission of bids. While these definitions do not correspond to the original meaning of WSR exactly, the WSR methodology can still be used as a framework for the analysis in our study.

### **3. The WSR-based 3D analysis of the frequent commercial bribery during the invitation and submission of bids for construction projects.**

By using the WSR systems methodology as the analysis tool, the multiple causes of frequent commercial bribery during the invitation and submission of bids for construction projects can be interpreted from the 3D perspectives of “Wuli”, “Shili”, and “Renli”:

(1) The analysis from the “Wuli” perspective: the effectiveness of the bidding regulation is weakened by the environmental factors in reality.

First, the social environment on which the bidding system depends is one of the external causes of commercial bribery. China is currently at its transition period and a long time is required for the social transformation to complete. At the same time, prolonged efforts are also required to establish a management mechanism and legal system that are compatible with the market economy. During this process, the occurrence of some loopholes becomes inevitable and these loopholes will give birth to corruption behaviors with negative effects. Such phenomenon is the reality that we have to face. Therefore, the bidding regulation should not be designed based on a set of standards far exceeding the current status of social environment and economic development. Otherwise, it becomes questionable whether such regulations can be implemented in practice.

Secondly, the shortage of material supplies is also an important factor limiting the improvement of bidding regulations. The “Legal Daily” reported an advanced practice at the Beijing Construction Engineering Trading Center on November 19<sup>th</sup>, 2009. In order to prevent illegal black-box operations during the invitation and submission of bids, the organizer not only evaluated the identities of the participants carefully, but also selected, notified, and confirmed all the evaluation experts on computer. The computer selected several experts from around 5,000 candidate experts. After entering the bid evaluation area, the experts are completely isolated from the outside world. Their every move and voice in the evaluation room are monitor by 26 monitoring devices and recorded by recording device, respectively. The recorded video and audio data will be stored for more than half year for any future enquiries when necessary. While the “Beijing mode” is quite successful, the high requirements on the material supplies cannot be satisfied in other places, especially those in economically underdeveloped areas. Therefore, it is difficult to promote such method nationwide. Furthermore, the lack of sufficient expert is another important realistic factor leading to the frequent commercial bribery during the invitation and submission of bids for engineering projects (Yihuo Wu, 2009). For example, seven evaluation experts were found guilty of accepting bribery in a bidding conducted at Hefei Bidding Center. In this bribery case, only 16 experts were invited to evaluate the bidding projects and 3 of them come from the same organization. Therefore, even if the evaluation experts were selected randomly from the candidate pool, the bidders still have the opportunity to bribe the evaluation experts.

(2) The analysis from the “Shili” perspective: the inherent defects of the current system.

First of all, there is a lack of supervision and control of the power. Currently, there has not been an effect supervision system in China for providing effective oversight of the construction projects. While there exists multiple “supervision authorities”, it is often difficult for them to monitor and regulate the project in practice. As a consequence, the power of supervision is attenuated severely in real engineering projects. In fact, reporting and complaining about violations during the invitation and submission of bids is also a type of supervision. However, the channels for filing and handling the complaints in the invitation and submission of bids still remain unclear at present. Therefore, the



entities whose rights are threatened may not be compensated effectively in time. Thus, an effective supervision channel is blocked for the supervision authorities. Secondly, the evaluation process itself suffers from inherent defects. The bid evaluation is the core part of the entire bidding process. Nevertheless, there is no scientific universal evaluation criterion so far. Furthermore, the technical experts often constitute less than 2/3 of the entire evaluation committee. Many of the committee members are either owners or department leaders themselves. During the actual bidding process, some reviewers fail to show up in the evaluation site in time after being selected in the evaluation committee and many reviewers will answer their phones frequently at the same time. Even if the procuratorate or other supervisory authorities are present, the current regulations do not specify what measures the supervisory authorities are authorized to take at the site. Therefore, to eliminate the suspicion of interfering with the reviewers' evaluation process, the supervising personnel cannot stop a specific action at his/her will easily.

(3) The analysis from the "Renli" perspective: due to the mixed participants with strong and poor professionalism in the bidding process, the frequent occurrence of commercial bribery cannot be prevented effectively. The issues associated with the "human" entities engaging in the invitation and submission of bids is another important cause of the bribery issue. The "human" factor can be explained from the following aspects:

First, the construction authorities lack strong awareness of regulating the construction market. Many construction authorities have little knowledge on the bidding regulations. They believed that failing to outsource the project in accordance with the bidding process will not be serious problem as long as the project can be completed and delivered within the target budget. In other words, they do not possess the legal awareness of abiding by the law during bidding process. At the same time, some public servants with a weak mind are prone to loss of credit under the temptation of material interests and will eventually become corrupted.

Secondly, the evaluation experts may become untrustworthy. For the evaluation experts, the lack of professional ethics will yield more serious issues than the lack of professional expertise. This is because the professional expertise can be enhanced quickly by continued education, training, and practices, while the improvement of moral standard will take a very long time. Therefore, in practice, some reviewers who have lost their professional ethics will be bribed easily after which they throw away their professional ground and become the spokesman of the bidder.

#### 4. Conclusion

If the bid invitation and submission system is considered as a stand-alone system, then we can follow the systems methodology of "Wuli-Shili-Renli" and propose the following basic principles to improve the bidding system:

(1) From the "Wuli" perspective, we need to accelerate the transformation of the economic system and devote more efforts in training the professional talents in the field of bid invitation and submission. The macro social environment serves as the base on which a particular system can survive. Only by rationalizing the economic management system can we provide a survivable environment to allow proper operation of the bid invitation and submission system. A clear management system can ensure a steady and rapid economic development which provides material support to the reform of the bid invitation and submission system. If all cities in China have sufficient financial resources to build the bid site with advanced monitoring system similar to the Beijing Construction Project Contracting and Trading Center, then the occurrence of illegal operation in the bidding process will be greatly reduced. Moreover, the enhancement in economic strength will help improve the quality and efficiency when training the professional talent and furthermore alleviate the shortage of professionals in bidding process. The training of bidding professionals and in particular the training of their practical ability cannot be realized without the financial support, while the lack of investment in higher education has greatly constrained the training of talents with high qualities in colleges and universities. Therefore, only by accelerating the social transformation and maintaining a rapid and stable economic development can we fundamentally resolve the issue of insufficient human resources for bid invitation

and submission.

(2) From the “Shili” perspective, we should devote greater efforts to improve the supervision mechanism and the detailed operating system for the invitation and submission of bid. In other words, a more rigorous supervision mechanism should be constructed around the bidding process. On one hand, the “bribery crime file search system” promoted by the pro-curatorial authorities has achieved good performance in practice. The next step is to continue abiding by the system, keep improving the system gradually, and establish an information sharing platform allowing for inspection across the entire country. On the other hand, the simple supervision practice on the bid opening procedures should be converted to a dynamic monitoring system combining pre-, during-, and post-bid supervisions. Secondly, the management of the bid invitation and submission process should be further improved. Specifically, legislation measures should be taken to strengthen the bidding and bid filing system as well as to enable the bid written report system, the result announcement system, and bidding invitation approval system being implemented in practice. At the same time, a lifelong engineering responsibility system can be supplemented so that all the entities involving in the bidding process are always subject to the pressure of responsibility without slacking.

Thirdly, the management system of the bid evaluation experts should be improved under the existing conditions. On one hand, we can provide stronger supervision to the bid evaluation system by having the supervising personnel participating the bidding process on-site and the conversation during the evaluation being recorded. In this way, the experts will be supervised to perform their duties in alignment with the law. On the other hand, we can establish a dynamic management system which allows elimination and selection of unqualified and qualified experts, respectively. Furthermore, the professional expertise and the moral standards of the experts can be improved regular training and education.

Fourthly, we should step up the punishment on commercial bribery. In particular, legislative measures should be taken to intensify the sanction on commercial bribery and increase the cost of crimes committed by different entities in the project bidding process. When the cost of corruption exceeds the potential benefit, the different stakeholders will abandon the idea of commercial bribery due to their fear of the high cost. Such practice can prevent corruption from the root source.

(3) From the “Renli” perspective, we need to strengthen the consciousness of honesty and credit for different parties engaging in the bid invitation and submission process and increase the moral and legal costs of being dishonest. To achieve this, it is required to improve the education on professional ethics, strengthen the moral values for the public, and establish a social honesty and credit system. Specifically, the personal education can be taken as one of the important contents of the assessment. At the same time, we should also improve our legal education and enhance the awareness of the legal system. Furthermore, it is required to strengthen the credit management through establishment of reward system for being honest and punishment system for being dishonest. As stated by Hongjun Jiang (2004), “we should pay attention to appointing the engineers and technicians who are responsible, law-abiding, and familiar with the business to the front-line of construction projects. Based on the understanding of the quality of the personnel and the scientific decision-making, we should follow the principle of admitting the best candidate and select the bidding agencies and supervision agencies that are contract-abiding and reputable through open competition. These agencies should then be in charge of the bidding process and the supervision task during the engineering projects”. The bidding participants who are in good faith will be given priority in terms of salary and job promotion. On the contrary, those who lack good faith should be disqualified accordingly until deprived of their rights to participate in the project bidding.

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