

# Study on the Management Mechanism of Bidding Procurement in Higher Vocational College

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## Abstract

The bidding procurement of higher vocational colleges has many characteristics, such as many kinds, stable types, strong professionalism, relatively small budget. The bidding procurement work is often a risk-prone field in higher vocational colleges. In order to prevent the occurrence of related risks and ensure the smooth progress of the bidding procurement work, it is very important to strengthen management. The paper first explains the current situation of bidding procurement in higher vocational colleges, then analyzes the problems existing in the process of bidding and procurement in higher vocational colleges, and at last puts forward corresponding solutions to provide effective reference for the management of bidding procurement in higher vocational colleges.

## Keywords

Higher Vocational Colleges, Procurement by Bidding, Management Mechanism, Project Leader

## 1. Introduction

Bidding purchasing is a common way of purchasing goods and services in higher vocational colleges.

For the higher vocational colleges, a large amount of capital investment will help improve the construction of school infrastructure, improve the level of teaching and research software and hardware, and promote the better growth and development of higher vocational colleges. However, this undoubtedly brings a huge test to the bidding and procurement work of higher vocational colleges.

At present, many higher vocational colleges have problems such as imperfect

bidding and procurement management mechanism and low management level. Higher vocational colleges should combine the characteristics of bidding and procurement with their own actual conditions, carry out a comprehensive transformation and upgrading of traditional bidding and procurement, standardize the bidding and procurement process, and promote the maximum benefit of bidding and procurement work in higher vocational colleges (O'Dowd, 2013).

This paper is based on the bidding and procurement situation of Shanghai Publishing and Printing College, the website of Shanghai Finance Bureau, the website of China Government Procurement, the website of Shanghai Government procurement and the relevant articles on college procurement. The rest of the research is structured as follows: First, the characteristics of bidding procurement in higher vocational colleges are explained. Secondly, it points out the problems existing in the bidding and procurement of higher vocational colleges. Finally, the corresponding solutions are put forward.

## 2. Literature Review

### 2.1. Research on the Basic Theory of Government Purchasing

The research on procurement began more than 200 years ago, but currently, most of the available research literature is on government procurement, with little research on universities, especially in the field of bidding and procurement in vocational colleges. The bidding procurement of vocational colleges is a part of government procurement, and the research results of government procurement also have reference significance.

Russell Forbes' (1929) book *Government Procurement* was published, which clarified the connotation and principles of government procurement for the first time. Reduce procurement costs through centralized procurement, strictly control expenditures, and standardize procurement procedures.

Baily (1987) described the procurement process. Before procurement, the relevant procurement departments determine the requirements for goods and services, compare and confirm suppliers and goods, negotiate with suppliers to reach transaction conditions, and sign a contract for acceptance based on the contract content.

Thai (2008) found that since the 1990s, governments at all levels have been facing increasing pressure. Although the US government spends about 15% to 20% of its GDP on contracts of goods and services, it seldom procured government procurement officials by referring to textbooks. As a result, procurement officers lack the necessary knowledge of how systematic procurement works and is cost-effective.

Mizoguchi and Van Quyen (2014) analyzed the corruption of government procurement officials, who abused their power to distort the ranking of bid evaluation and give bidders opportunities to readjust their offers.

In recent years, scholars have shifted their focus on government procurement to green government procurement, sustainable development, auditing and other fields. For example, Kim (2019), a South Korean scholar, proposed to establish a tracking mechanism, change audit methods, and design audit plans for government procurement auditing.

Kozuch et al. (2022) believed that although the integration of green standards into government procurement was not a revolutionary idea, there was little information about the consideration of environmental factors in government procurement, and environmental factors have not been established as an integral part of government procurement.

## **2.2. Research on Government Procurement Supervision and Management System**

Fearon et al. (1993) pointed out that in order to achieve the best implementation effect of government procurement policies, it is necessary to establish the functions of government procurement and clarify the responsibilities of relevant departments to ensure that procurement work is open and transparent.

American scholar Cibinc Jr. and Nash Jr. (1995) believed that the United States began to legislate related contents of government procurement in 1761, and a relatively complete legal system is an important guarantee for the smooth development of government procurement.

Naegelen and Mougeot (1998) proposed that the government should eliminate discriminatory policies and address issues such as price subsidies and procurement guarantee in bidding to help optimize the procurement process.

Popa and Pîrvuț (2016) proposed that only when the methods and procedures in the internal control system are complete, the management can implement policies and measures, and internal control should be combined with audit to reduce negative effects and risks.

Madlanga (2019) put forward regulatory opinions on preventing corruption. It was necessary for the public sector to increase the salary of practitioners and provide a good business environment for procurement suppliers, so as to reduce the occurrence of corruption by improving the quality of life of procurement managers and supervisors.

The bidding procurement of higher vocational colleges is mainly reflected in two dimensions: bidding and tendering. Among them, bidding refers to that the bidding unit issues the basic information of the procurement project, procurement requirements and other information to the society by issuing a bidding announcement on the government procurement platform, so as to attract different bidders to participate in the bidding, and then carry out a comprehensive evaluation of the project according to the pre-formulated scoring criteria, from which the winning unit that best meets the actual needs of higher vocational colleges is selected. The way of bidding procurement is widely used in the procurement of higher vocational colleges, which meets the basic teaching materials

and other goods and services required for daily management of the school, and ensures the smooth development of students' daily life and school teaching and scientific research.

Looking at the data on the total investment of education funds in China over the past decade from 2013 to 2022, it can be observed that the total investment of education funds has been increasing year by year. In 2022, the total investment in education funds reaches a new level, exceeding 6 trillion yuan. With the significant increase in the country's emphasis on education and the continuous increase in funding, the construction of vocational colleges has been able to develop rapidly in this situation. Under this situation, the construction of vocational colleges has rapidly increased from 1321 in 2013 to 1545 in 2023 (*10 Sets of Numbers, Experience Education This Year, 2023*).

### **3. Characteristics of Bidding Procurement in Higher Vocational Colleges**

#### **3.1. Bidding Procurement Involves Many Types and Has Strong Professionalism**

The purpose of higher vocational colleges to carry out bidding procurement is to meet the daily life, administration, teaching and scientific research activities. Therefore, bidding procurement will cover many different categories, including a wide variety of procurement types, such as office furniture, sporadic engineering maintenance, network security maintenance, student practical guarantee vehicles, laboratory equipment, student entrance examinations, high-quality courses, classroom decoration, etc. And it also has strong professionalism, which poses significant challenges in the actual implementation of bidding, procurement, and management work.

#### **3.2. The Amount of Budget Funds for Bidding Procurement Is Relatively Small and the Type of Procurement Is Stable**

The funding for bidding procurement of higher vocational colleges and key undergraduate colleges mainly depends on the financial allocation of government departments. With more and more financial support from the government to the cause of higher education, the annual expenditure for bidding procurement of higher vocational colleges is also increasing year by year. However, there are significant differences between vocational colleges and key undergraduate colleges. Because key undergraduate colleges cover students at different levels of undergraduate, master's, and doctoral levels, with a large number of students and numerous research projects, they have a higher demand for bidding procurement funds. However, higher vocational colleges have a small number of students, rarely involve scientific research projects, have a small procurement scale, and mainly provide guarantees for daily teaching. The types of bidding procurement are relatively stable.

## **4. Existing Problems**

### **4.1. Lack of Integration in Bidding Procurement Budget**

In higher vocational colleges, the approval of the bidding procurement budget fund application is mainly concentrated at the end of the previous year, and the approval of the bidding procurement budget of each educational department and administrative department mainly comes from the educational management department and the financial department.

Because the education management department and the financial department did not discuss with each other to classify the projects one by one according to the actual situation and integrate similar projects before approving the application for bidding and procurement budget funds for the next year, similar projects in the same year were subject to bidding and procurement for many times. As a result, some bidding units have contracted for many times. There are problems of bid-collusion and bid-rigging in the bidding procurement process.

Bidding procurement is not a simple task, involving a number of departments and administrative departments with procurement needs in higher vocational colleges. Only by effectively integrating the project can we reasonably allocate the resources of the school and ensure the use of various material resources in bidding and procurement to achieve utility optimization.

### **4.2. The Project Leader Is Not Professional Enough**

At present, the project leader of each bidding procurement project in higher vocational colleges provides the procurement scheme and scoring standard, which is the main basis for the preparation of bidding documents.

Due to the poor professionalism and the lack of sufficient research in advance of the project leaders, the problem of the lack of standardization of bidding documents exists in the process of bidding and procurement.

Many project leaders have not encountered many principled issues in formulating procurement plans and scoring standards. But if we analyze the details inside, we will find many non-standard and unreasonable aspects.

Firstly, the procurement requirements are not clear, whether it is for goods or services, the procurement plan proposed by the project leader fails to reflect the real demand, resulting in a disconnect between the procurement requirements and the real demand in the later procurement work.

Secondly, some responsible persons lack professionalism in the formulation of procurement plans and scoring standards, and the setting of specific objectives and the preparation of bidding documents lack certain rationality. For example, when formulating scoring criteria, the proportion of commercial aspects such as performance and qualification certificates of bidding companies is too large, while the proportion of technical aspects such as equipment functions and specifications is too small. The above situation resulted in individual or total scores exceeding the reasonable deviation range when comprehensively scoring the

bidding unit on the day of evaluation.

### **4.3. The Bidding Procurement Process Is Not Standardized**

In the bidding procurement process of higher vocational colleges, the standardization of the procurement process is directly related to the successful completion of the bidding and procurement work.

Although the government's investment in higher vocational colleges shows an increasing trend year by year, the reform of bidding procurement in higher vocational colleges is rarely involved. Bidding procurement still uses the traditional offline way, and does not use digital means to embed the bidding procurement business in the college information system, which leads to not only the procurement steps in the bidding procurement, but also the procurement process is full of loopholes. Even if the development of sound management methods and standardized processes, it is only superficial. Some project leaders deliberately conceal bidding procurement information and modify bidding procurement documents without permission.

### **4.4. All Aspects of the Bidding Procurement Process Lack Effective Supervision**

Bidding procurement work steps are numerous. The process of bidding procurement is complicated. In the whole process, the project application, finance, assets, audit and other departments are involved. It is necessary to strengthen cooperation between various departments, supervise the entire process of each project, and promote the successful completion of bidding and procurement work. However, in the specific implementation stage, due to the coordination and supervision between multi-departments, the lack of real subjects in the bidding and procurement process is easy to result in the lack of comprehensive and systematic supervision of the material procurement process.

Firstly, there was insufficient oversight of the procurement process. In the process of bidding procurement in higher vocational colleges, the supervision stage is mainly concentrated in the stage of bid opening and bid evaluation, and the supervisors only supervise the suppliers on the spot, which is easy to appear the bidding among suppliers and the cross-target behavior between the supply and demand parties.

Secondly, the project leader lacked effective supervision over the rationality and timing of procurement. Using the traditional offline bidding procurement, the collection and supervision of procurement documents is difficult, and project leader of each time node is vague, which leads to certain defects in both the bidding process and the specific procurement requirements.

## **5. Solutions**

### **5.1. Improving the System and Strengthening Management**

Firstly, we will improve the budget approval system for funds. Each department

and administrative department should sort out the existing materials and equipment in their department, and then apply for procurement budget funds from the educational management department and financial departments in a reasonable and scientific manner based on actual needs. The educational management department and the financial department, as the budget approval department, should study and judge the advanced nature of the purchase plan applied by each department and administrative department to determine whether there is really a need for purchase. Then, the two departments will integrate similar projects in the purchase budget applications received, and then approve the budget funds in batches and times according to their priorities.

Secondly, we will improve the operation system. In combination with the laws and regulations promulgated by the state and the actual situation of the higher vocational colleges, the approval system for public funds is added. At the same time, we should establish a mutual restraint mechanism, which can ensure that the responsibility for the pre bidding procurement work is assigned to each person, so that each staff member can act according to their respective division of labor and do a good job in the risk prevention of bidding procurement.

Finally, the financial department of higher vocational colleges needs to create an independent account, which is specially used for the accounting of procurement bidding, and a special person is responsible for the funding of bidding procurement. The projects requiring bidding procurement each year are handled separately and archived at the end of the year. In this way, the loopholes in the operation and process of fund approval can be prevented and the management level can be improved.

## **5.2. Strengthening the Quality of Project Leaders**

Project leaders are the main executor of the procurement work, and the strength of their professional quality and comprehensive ability determines the quality of bidding and procurement. Project leaders are the main executor of the procurement work, and the quality of bidding procurement is determined by their professional quality and comprehensive ability. Therefore, higher vocational colleges should regularly carry out training activities of bidding procurement for each teaching department and administrative department. Let project leaders learn the laws and regulations related to bidding procurement and the rules and regulations of bidding procurement in higher vocational colleges. In this way, the procurement knowledge and professional quality of project leaders are improved.

In addition, we should formulate a sound management method of rewards and punishments, and compact the responsibilities of project leader. Serious and responsible personnel with strong professional quality will be rewarded. For those with poor professional ability and negative neglect, they need to be given a warning and demerit recording punishment. The personnel who seriously violate the laws and regulations on bidding procurement shall be dismissed. At the



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same time, higher vocational colleges should fully mobilize the enthusiasm of purchasing personnel, and employ excellent management talents with strong professional quality and rich practical experience to improve the overall quality of purchasing personnel when necessary.

### **5.3. Giving Play to the Role of Bidding Agencies and Evaluation Experts**

At present, the implementation phase of bidding procurement in colleges and universities is organized and implemented by the bidding agency. The purpose is that the bidding agency formulates legal and compliant bidding documents to ensure that the bid winner with strong strength, good performance and excellent performance ability is selected (Liu, 2003).

In the implementation stage, the bidding agency mainly provides whole-process consulting services for higher vocational colleges, and reviews whether the procurement needs and scoring standards initiated by the project leader meet the relevant regulations.

Project leaders shall apply to the bidding agency for assistance before proposing to purchase relevant materials, give specific guidance on the preparation of bidding procurement materials, and judge in advance the situations that are very easy to occur in the bidding documents, so as to ensure the efficiency and effect of bidding procurement.

In the bid evaluation, the bidding agency shall carefully screen the experts and select the experts engaged in the relevant fields of the project. For the large amount of bidding procurement projects in higher vocational colleges, in addition to the review of the procurement related materials by the bidding agency, experts should be hired to conduct a secondary review of the materials, detailed analysis of the project terms, improve the details of procurement needs, and strictly control the risks and unreasonable factors involved in bidding and procurement.

### **5.4. Establishing Information Resource Database**

Higher vocational colleges should upgrade the traditional bidding procurement methods, use modern information and resources to build their own bidding and procurement information resource database, take advantage of the powerful information sharing advantage of the network, and further strengthen the management of bidding and procurement, and replace the traditional methods that have always been used.

Firstly, the cloud storage platform for project data should be established. From the current situation of the project data filing, higher vocational colleges mainly establish data storage archives to collect bidding procurement data. Due to the increasingly technological level of bidding procurement, the delivery of electronic bidding documents has become very common. Higher vocational colleges can not only store paper materials, but also establish a cloud storage plat-



form for project data to back up various bidding and procurement data online, which can not only store more documents, but also release the storage space for paper data and save land cost (Panayiotou, 2004).

Secondly, the review expert and supplier management system should be established. On the one hand, by using information technology for bidding procurement, we can set the evaluation expert access standards for each project according to the professional title, current industry, working time and major of the evaluation expert, and select the school procurement evaluation expert database with strong professional quality, long working time and professional counterpart. On the other hand, higher vocational colleges should establish their own information resource database for bidding procurement according to the summary and arrangement of bidding procurement projects in recent years, the list of different industries and the performance of the bid winner after the completion of project procurement, because the procurement categories are close to convergence and change little every year (Hochstetter & Cares, 2014).

Information resource database can help screen out suppliers with high credit, good professional ability and strong performance ability in advance, improve the efficiency of bidding and procurement, escort the bidding and procurement work, and ensure the teaching and scientific research life of higher vocational colleges.

### **5.5. Establishing Information Resource Database**

Information technology has become a benchmark for the development of the new century, and traditional management systems have gradually been reformed under the influence of information technology. In recent years, various policy documents issued by relevant departments are actively encouraging higher vocational colleges to establish a bidding and procurement system with transparent and simplified processes, sound supervision mechanisms and optimized procedures (Zhang, 2015). It has been a general trend for higher vocational colleges to establish a bidding procurement system, which not only combines traditional bidding and procurement work with information technology, but also breaks the geographical restrictions of suppliers to create a fairer and more transparent procurement environment for bidding and procurement. By this way, the bidding and procurement management process is clear and supervision is in place.

Firstly, each higher vocational college establishes its own bidding procurement system. This system not only covers the record of the implementation of procurement at each stage and the basic management of procurement, but also includes the project application, budget approval, tender document upload, tender announcement, review information, announcement of winning the bid, contract signing, etc., until the project archives some of the network traces of the relevant links of bidding and procurement, the whole process, all-round, full-cycle supervision and management.

Secondly, each vocational college should establish a bidding procurement in-

formation release module on its official website, timely release relevant bidding and procurement information, clarify the procurement method, budget amount, procurement requirements, corresponding document submission time, and bid opening time for each bidding and procurement project. For the bidding procurement of higher vocational colleges, it is to meet the requirements of perfect system, reasonable process and process compliance, so as to reduce the risk of bidding.

Finally, according to the information provided by the supplier according to the nature of the enterprise, location, performance and other conditions, the situation of each project supplier is summarized and relevant query is carried out, the relevant review results are uploaded to the bidding procurement system in a timely manner, and the project leader is copied to avoid the risk of bidding procurement as much as possible.

## 6. Conclusion

All in all, bidding procurement is an important content that needs strict management in higher vocational colleges. Bidding procurement plays a very key role in promoting the healthy development of higher vocational colleges, improving procurement efficiency and optimizing resource utility. With the increasing emphasis of the state on higher education, higher vocational colleges need to improve the system to strengthen management, strengthen the quality of project personnel, give play to the professional role of bidding agencies and evaluation, use network technology to effectively improve the effectiveness of bidding procurement management and promote the continuous development of bidding procurement.

The paper not only aims at the bidding procurement of higher vocational colleges, but also provides reference for the government, public institutions and all kinds of schools' bidding procurement management.

## Conflicts of Interest

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

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