

Benefits of Cost Management Automation at China Vanke Co., Ltd.

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Abstract – Today, many Chinese construction companies make extensive use of the information base. In China, the problem of creating automated information management systems is especially acute. The country's economy is growing rapidly, so it is necessary to introduce information technologies for the development of business processes. Studies have shown that in modern conditions the effectiveness of informatization is determined by the quality of information links, the level of communication of various participants in the communication process, in connection with the penetration of informatization into all areas of business. In conditions of increased demand for information resources, great importance is attached to the development and design of corporate information systems serving the financial departments of construction corporations. The purpose of the article is to analyze the Chinese construction company China Vanke Co., Ltd. and evaluate the effectiveness of financial management using information technology, identify the main problems of financial management and give recommendations for their management.

Keywords – information technology, construction company, finance, management, financial management, costs, cost management, efficiency.

1 CONSTRUCTION COMPANY FINANCE, ESSENCE AND CONCEPT

Construction companies carry out construction, reconstruction, overhaul of buildings and structures, installation of equipment. Construction organizations in China have various organizational and legal forms: trusts, combines (associations), construction departments, construction and installation departments. Construction organizations can act as a general contractor or subcontractor. Construction organizations can be owned by the state, municipal authorities, large economic enterprises, joint stock companies, cooperatives and other companies [1].

Financing of construction companies is the organization of workflow and the movement of material resources at all stages of the construction cycle. The financing specification for construction companies is associated with a large volume of external sources of financing from third-party customers. Financial condition is a complex concept that is characterized by a system of indicators reflecting the presence, structure and dynamics of property (assets) of a construction organization, financial stability, liquidity and solvency. In market conditions, the value of the

financial condition turns from a formal moment into a determining type of activity of a construction organization [2].

The financial resources of construction companies depend on the volume of installation work in the current period. The basic principles of organizing financial flows, distributed by subjects: investor, customer, designer, contractor, subcontractor. Each of these enterprises has a certain share of working capital in the total volume of construction. The main purpose of financing construction companies is to provide a single amount of the actual construction costs and the volume of the planned estimate before the start of construction. This is necessary in order to carry out an estimate of all construction work and develop technical documentation [3].

Initial costs include design and survey work and research and development, and not all paid research is used by construction companies. The initial capital of construction companies is associated with the creation of construction teams of a certain level of training.

The formation of costs for construction objects is carried out at contractual prices and is included in the conditionally finished product. Each conditionally completed volume is reflected in the estimate. An act of acceptance and transfer is drawn up. This act indicates the actual costs, which should be confirmed by actual documentation and in terms of volume should not deviate from the planned estimate by 10-15% [7].

2 BACKGROUND OF CHINA VANKE CO., LTD.

China Vanke Co., Ltd. was founded in 1984. After 30 years of development, it has become a leading urban developer and service provider in China. The company first appeared on the Fortune Global 500 in 2016, ranking 356th. Since then, he has remained in the leaderboard for four consecutive years, ranking 307th, 332nd, 254th and 208th [4]. For 20 years, the company has specialized in the construction of the most complex and iconic objects in China - multifunctional complexes, residential and commercial real estate. High-profile professional expertise, accumulated experience, the use of high-quality and modern technologies have provided construction projects of China Vanke Co., Ltd. recognition in the professional and architectural environment [5].

Currently, the company is implementing 14 projects with a total supply of 180 thousand sq. M. m. Most of the company's projects are at a high stage of construction readiness or have already been put into operation [6].

China Vanke Co., Ltd. has established itself as a reliable and professional developer. The company successfully implements residential projects of all classes: from comfort to de Luxe. The developer's facilities are distinguished by an interesting location, a well-thought-out concept and high-quality construction. China Vanke Co., Ltd. is a recognized leader in the construction of business, elite and premium class housing, as well as high-rise construction. The company performs a full cycle of work - from the initial analysis of the land plot and marketing research to the commissioning of the constructed facility, interior design and building management [7].

Today, the company has successfully transferred all the processes of buying real estate online: you can choose, compare and purchase an apartment or an apartment from the company in 6 simple steps without leaving your home. The company also provides a wide range of professional

client services - sale of residential real estate, brokerage services and client support services for tenants of commercial real estate.

The production and intellectual potential allow China Vanke Co., Ltd. daily confirm their high professional status and create relevant, truly unique projects, ahead of other Chinese companies for decades. The objects built by the Concern rightfully belong to the innovative projects of the third millennium, which have earned great success in the Chinese market. In 2020, China Vanke Co., Ltd. builds on past results of transformation and renewal and focuses on three aspects [8]:

- the company conducts a deeper analysis of changes in the market environment and is looking for ways to maintain its integrity in an ever-changing environment;
- the company focuses on product and service capabilities, implement lean operations and improve competitiveness and efficiency;
- the company deepens organizational restructuring, examines organizational capabilities and efficiency in practice.

The COVID-19 outbreak is an incident that should not be taken lightly. The company firmly believes that the pandemic will eventually end, but these challenges will be faced by both businesses and customers. In the face of the sudden outbreak of novel coronavirus pneumonia (COVID-19), the company's foundation donated 100 million yuan to Wuhan [9]. China Vanke Co., Ltd. cares about its customers, and also detects and understands changes in customer needs in difficult times, constitute an important starting point for developing competitiveness in the future. In 2020, the company completed 108 projects in more than 50 cities in China. Today China Vanke Co., Ltd. continues to focus on improving existing projects.

Table 1. Results of Operations of China Vanke Co., Ltd. (Hkd)

	2020	2019	2018
<i>Cost price</i>	65 629 800 310.28	69 117 910 170.31	37 836 370 973.57
<i>total revenues</i>	101 862 743 509.4	109 509 871 960.47	58 249 201 597.85
<i>Operating revenue</i>	101 862 743 509.4	109 509 871 960.47	58 249 201 597.85
<i>Operating income</i>	20 209 948 098.8	26 364 506 122.06	10 097 128 857
<i>Net income</i>	7 705 200 459.6	12 909 597 377.80	1 349 376 771.72

a. [4] China Vanke Co., Ltd. // <https://www.vanke.com>.

The company's performance declined in 2020, due to the global economic crisis caused by the pandemic. Thus, the reputation of a strong, experienced developer, a highly professional team, a large portfolio of projects, quality workmanship, application of innovations in engineering and architecture - all this allows China Vanke Co., Ltd. maintain a leading position in the real estate market in China.

3 COST MANAGEMENT PROBLEMS IN THE COMPANY

3.1 Methods

For the most complete study of the material, the methods of financial analysis, the method of generalization, and comparative analysis were used; systems approach; method of grouping and processing information.

To obtain the most accurate information, the author of the article studied scientific publications, monographs, articles by foreign and Russian authors in the field of financial management and cost management.

The article summarizes the materials of the financial analysis of the construction company China Vanke Co., Ltd., taken from open sources on the Internet, and also used professional documentation from the official website of China Vanke Co., Ltd. - <https://www.vanke.com>.

3.2 Analysis of problems in company management

In understanding the marketing direction, it can be argued that this is, first of all, the very base of the marketing idea, which determines the processes of developing the business direction as a whole, and from which a general strategy then grows for the implementation of the necessary tasks of the entire financial company [5]. The company practices quarterly and annual budgeting. Using the budgeting method, a company can coordinate budgets both for the company as a whole and for its divisions. Thus, each department is responsible for the fulfillment of the assigned tasks, which together affects a more effective result for the company as a whole [10].

The first problem with the budgeting method in a company is that budgets are not related to the company's divisions. This problem is based on the fact that the preparation of action plans and the receipt of analytical information on the results of activities is not carried out in the divisions of the company. Thus, the budget structure may not get the calculated data from the departments. Budgeting is based on processed accounting information that does not fully reflect costs.

The second problem is based on the first one: the generalization of analytical information, the lack of a comprehensive analysis of the reasons that caused the deviation of the actual values of budget execution from the planned ones. Making decisions in this situation becomes almost impossible. The problems of the budgeting method touch upon the main problems in the company (Figure 1).

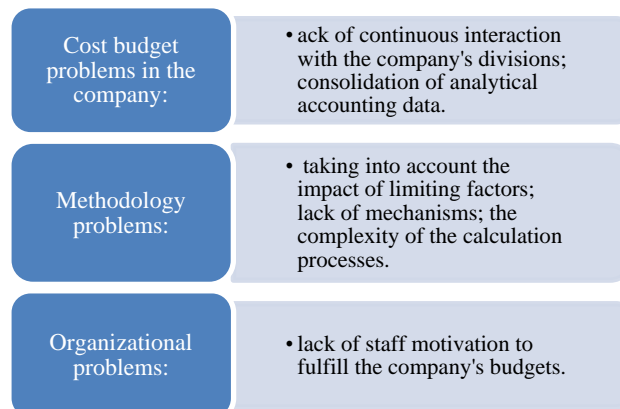


Figure 1. Problems of budgeting in the company

Issues affecting cost management [9]:

1) *There is a lack of complete and reliable analytical data for developing budget planning.* As a result, the quality and clarity in the development of budgets decreases. Also, it is worth noting

that when collecting data for budget planning, such factors as seasonality, price changes are not taken into account, analytics of prices from competitors are not carried out.

2) *The next problem is the lack of variant analysis.* The company has no idea what to do if the situation goes unplanned. At best, such an outcome will lead to a loss of time in making effective decisions, at worst - there will be a loss of profits and customers. In this case, the company needs to have several options for the development of events. For each option, it is necessary to develop a management solution in advance.

3) *Another problem is the complexity of operations.* Budget accounting is a rather laborious process that affects all the data of the company's activities, which must be reflected in the budget (plan). The data must be reliable and undistorted, which will affect the efficiency of the budget.

4) *Organizationally, there is also a problem, which is reflected in the lack of motivation of employees in the implementation of the budget.* This problem comes from a company whose management does not provide financial incentives for direct budget development specialists, so they have no interest in the quality implementation of the plan.

5) *Another problem is the lack of an adequate level in the use of an automated cost management system.* Since a large amount of data is processed for budgeting, employees have to enter information manually for the most part. despite the fact that there is a specialized automated program. The installation of an accounting program for accounting and cost management requires additional investment in employee training, which is not given due attention by the company's leaders. Training in accounting and cost management in an automated program will increase the quality and efficiency of staff work, will make it possible to quickly receive generated reports on the data of each department, it will be possible to determine financial results in the future period, as well as the ability to compare financial receipts from construction and installation works with those necessary for company with estimated data on direct costs.

It can be concluded that the use of the budgeting method in the company today practically does not bring results, since this method is used ineffectively.

4 MEASURES TO IMPROVE COST MANAGEMENT IN THE COMPANY

Operational control "from above" will help monitor the implementation and adjustment of the budgeting system in the company.

A more careful consideration should be given to monitoring the level of automation of the budgeting system in the company, holding practical seminars aimed at teaching all specialists who are related to cost management in the enterprise to work in the budgeting automation program.

Table 2. Advantages of Using an Automated Budgeting Program

Human budgeting system	Automated budgeting system
Lack of multi-use tools	There is a multiuser mode of work with the same data

There is no multivariate forecasting mechanism	Development of several alternative budget options in one system
There are no mechanisms for automatic data consolidation	Automatic data consolidation
The history of file changes is not kept. When manually saving versions to separate files - difficulties in comparison	All corrections are recorded. Version comparison tools available
Insufficient functionality and complexity of forecasting	The system is functional and has tools for forecasting, analysis and budget control

b. compiled by the author.

To begin with, it is proposed to establish a system of direct exchange of the actual data of the enterprise in the automated budgeting system. This is necessary in order to establish the interaction of budgeting with the accounting units of the enterprise. The second stage is the introduction of a variant analysis mechanism, which would take into account the scenarios of the development of events and a large number of factors affecting the production of a construction organization. This is to increase the accuracy of projected budgets. The third stage is the refusal to use the method "at the request of departments" in the formation of budgets, thereby setting sales plans "from top to bottom". It is also necessary to establish strict regulation of the activities of all structural divisions of the analyzed enterprise [10].

Incorrect distribution of responsibility among employees is another problem of the enterprise in cost management, leading to the fact that not all employees are properly motivated to perform their professional duties. As a method for solving this problem, it is proposed to introduce a cost management system by responsibility centers. This will make it possible to assess the contribution of each division to the company's performance, decentralize cost management, and monitor the formation of these costs at all levels of management, which in general can significantly increase the economic efficiency of business.

Within the framework of such a current situation, each direction of the company's activity can be divided into components, thereby those responsible for the result obtained will be liable in monetary form, since each result of the activity can be assessed in a similar form, and then exert a managerial influence in case of achievement or non-achievement of the set goal.

Cost centers are understood as divisions that use various resources in order to carry out their work functions, affecting the size of the enterprise's costs. Due to the fact that each department as a result of its activities consumes resources, it is defined as a cost center.

The procedure for maintaining control by cost centers has a positive effect on the formation of economic and financial performance of enterprises, since control of enterprise costs is one of the most important functions of cost management.

5 CONCLUSIONS

Thus, the introduction of a cost management system by responsibility centers will make it possible to clearly understand how the profit was achieved, and who actually made efforts to this, and also help to determine the most effective structural divisions of the enterprise. Implementation of the proposed cost management enhancements will enable China Vanke Co., Ltd. improve the quality of management decisions made in the future, which have a direct impact on the efficiency of cost management and the activities of the enterprise as a whole.

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