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Internal Control Evaluation Problems and Solutions-A Case Study of Xinjiang Biological SMEs

¹Li Ming-Xing, ²Jiang Xi-Min, ³Wang Ran and ³Zhang Tong-Jian

¹The Research Centre on the Development of Enterprises in Xinjiang, Xinjiang University of Finance and Economics, Urumqi, Xinjiang, 830012, China
²Xinjiang University of Finance and Economics, Urumqi, Xinjiang, 830012, China
³School of Management, Jiangsu University, Zhenjiang, Jiangsu, 212013, China

Abstract: Being one of strategic emerging industries, biotechnology industry includes lots of biological SMEs in Xinjiang. But there existed internal control evaluation problems especially in Xinjiang's biological SMEs according to laws, regulations, rules and policies. Such problems include unclear internal control evaluation objectives, inappropriate internal control evaluation subjects, simple internal control evaluation methods, insufficient internal control information disclosure and negative internal control evaluation attitude. Numerous references are related to internal control evaluation from the aspect of VBR, external view, internal Control Self-assessment (CSA) and commercial banks. So internal control evaluation index system consists of first-grade index, second-grade index and third-grade index so as to analyze and examine internal control evaluation mechanism. Finally, the corresponding measures are given to solve the present internal control evaluation problems in Xinjiang biotech SMEs.

Key words: Biotechnology industry, SMEs, internal control, evaluation indicators

INTRODUCTION

In 1992, the United States issued COSO "Internal Control-integrated Framework" (referred to as the COSO report). According to Report, internal control system was composed of five elements including internal control environment, risk assessment, control activities, information and communication and internal supervision. Internal control objectives were set for the three categories: the efficiency and effectiveness of operations; reliability of financial reporting; compliance with applicable laws and regulations. And strategic goals were added later and it was seemed as the highest level of internal control objectives. Based on the COSO internal control report, England conducted the formation of own internal control evaluation mode by combining the internal control idea into corporate governance, so as to make the pursuit of the best corporate governance practices. The representation results were Turnbull Guide from "Enterprise Internal Control group" which held that internal control elements included internal environment, control activities, information and communication and monitoring.

In 1995, the Canadian Institute of Chartered Accountants of CoCo Committee absorbed relevant outcomes in COSO report and issued a control guidelines

combined with the practical experience in Canada. The guide held that the essential elements of internal control focused on purpose, commitment, capacity, monitoring and learning and on this basis twenty core principles were followed. In 2002, the United States enacted the Sarbanes-Oxley (SOX) Act. According to Section 302 of SOX "the company's responsibility for financial reporting" and Section 404 "Management's assessment of internal control", U.S. Securities and Exchange Commission (SEC) as well as Accounting Oversight Board (PCAOB) conducted auditing standards, where internal control evaluation of listed companies included the evaluation of Company's management over internal control effectiveness of financial reporting in United States. In summary, internal control have played an important role in achieving organization's business objectives, protecting the safety and integrity of enterprise assets and ensuring the reliability of accounting information.

INTERNAL CONTROL EVALUATION PROBLEMS IN XINJIANG SMES

Unclear internal control evaluation objectives: Biotechnology industry is one of strategic emerging industries in Xinjiang. There are many biological SMEs in

Xinjiang, mainly including Xinjiang Tianshan Animal Husbandry Bio-engineering Co., Ltd, Xinjiang Western Animal Husbandry Co. and so on. In biotech industry evaluation problems of SME-related internal control are obvious.

According to "Evaluation of Internal Control Guidelines (draft)" Article IV, enterprises should evaluate the single or overall control objectives towards the strategic objectives, management efficiency and effectiveness objectives, financial reports and related information based on relevant laws and regulations. The essence of the internal control objectives was to help companies maximize enterprise value target for reducing the risk management process (Wei, 2011). At present, Xinjiang Biological Evaluation of Internal Control mainly emphasize on SME process control compliance for corporate strategic goals. Internal control theory no longer meets the requirements of SMEs development in Xinjiang, because it is difficult for SMEs to form self-control and active control system.

Inappropriate internal control evaluation subjects:

According to the Sarbanes-Oxley Act Section 302 set by U.S. Congress, the main evaluation subjects are corporate management, including the company's CEO, CFO or similar staffs. According to China's Evaluation of Internal Control Guidelines, its Article II holds that internal control evaluation means to conduct a comprehensive evaluation and obtain the conclusions as well as evaluation report. In China internal control evaluation subjects are the board of directors or equivalent governing groups. Although Xinjiang enterprises pay more attention to internal evaluation, the majority of SMEs in Xinjiang lack the formal audit committee. Although many SMEs have the special internal audit, the independence is not enough. Some belong to general managers and some belong to finance department, so that the internal audit function is difficult to make. There are approximately 70% of companies where the internal audit department makes the effectiveness evaluation to the company's internal control, compared with the finance department, the manager's office or others in approximately 70% of companies. So SMEs must be clear with evaluation subjects of internal control.

Simple internal control evaluation methods: Although Internal Control Evaluation Guidelines states that enterprises should combine the design and surgery of internal control of the actual situation and formulate specific internal control evaluation method. But there is no clear definition about the specific measures taken by the enterprises. In Xinjiang SMEs internal control evaluation mainly rely on internal control questionnaire, internal control flow and narrative method based on

subjective qualitative evaluation methods, resulting in the low efficiency and the poor effectiveness of the internal control evaluation.

Insufficient internal control information disclosure:

Overall, Return On Equity (ROE) was in direct proportion to the voluntary disclosure (Bowman and Haire, 1975). Therefore, there was the rapider growth and there was the better information disclosure (Smith and Watts, 1992; Gaver and Gaver, 1993). When the disclosure company had the significant deficiencies in internal control, the company's share price fell obviously and higher capital cost appeared (Ashbaugh-Skaife *et al.*, 2009). As for the company's stock price, the average decline rate was 25% when it made the financial statements (Richardson *et al.*, 2003). Xinjiang's biotechnology enterprises did not mandate information disclosure of internal control and there was no uniform disclosure format and requirements, resulting in few voluntarily information disclosure. The disclosure was so relatively simple that the construction company's internal control and information disclosure formality turned it into a sideshow (Wang, 2011a). The evaluation reports barely showed the significant and important disclosure of internal control deficiencies (Wang, 2011b).

Negative internal control evaluation attitude: Due to the late internal control practices in Xinjiang biotech SMEs, these enterprises have not yet formed the sound internal control environment. In addition, the internal control evaluation can only bring the recessive economic benefits rather than the dominant ones in Xinjiang SMEs, lacking managers with the long-term vision. So they have little internal control construction enthusiasm and it is difficult for them to mix internal control evaluation with corporate management philosophy and culture.

ENTERPRISE INTERNAL CONTROL EVALUATION SYSTEM

VBR perspective: Internal environment was divided into hard environment factors and soft ones. The former was decomposed into corporate governance structure and organizational design. The latter was decomposed into corporate culture, human resource policies and other indicators (Bao, 2012). Company-level internal control was divided into internal environment, risk assessment, control activities, information and communication. Operation-level of internal control was divided into procurement and payment cycle, inventory and production cycle, sales and collection cycle, funding activities, asset management, information systems management, budget and financial reports and other operations (Xiong, 2012).

Commercial banks: The first class index includes control environment, risk identification and assessment, control activities, information exchange and feedback, monitoring, evaluation and correction and so on. Among them, control environment consists of staff competency, management supervision and management style. Risk identification and assessment include risk identification and risk analysis. Control activities consist of information processing and physical control. Information exchange and feedback is decomposed into information quality and identifiable information. Monitoring evaluation was decomposed into continuous supervision, independent assessment and evaluation reports completeness (Xie *et al.*, 2013).

An external view: The first class index includes legal compliance management, asset security, financial reports and related information, operational efficiency and effectiveness and strategic goals. Among them, legal management is divided into supervisor supervision and Certified Public Accountant (CPA) supervision. Asset security consists of current assets safety and non-current asset security. Financial reports and related information include original documents, accounting documents and financial statements. Operational efficiency and effectiveness consists of operating capacity and solvency. The strategic goals were divided into goal setting and targets guarantee (Li and Zeng, 2013).

Internal Control Self-assessment (CSA): CSA implementation methods were mainly related to ICQ self-auditing and custom surveys (Liu, 2008). Common CSA methods included guided meeting method, questionnaire and management result analysis (Yang, 2012). Enterprises-related CSA implement mainly depended on the attitude of management, corporate culture, matching CSA implementation methods, the status of the internal audit department and personnel quality (Deng and Liu, 2013).

INTERNAL CONTROL EVALUATION IN XINJIANG BIOTECH SMES

First-grade index: Internal control evaluation index system is decomposed into 5 first-grade index such as internal environment, risk assessment, control activities, information and communication and internal supervision shown in Table 1.

Second-grade index: Internal environment is decomposed into five indicators including governance structure, development strategy, human resources policies, corporate culture and social responsibility shown in Table 2.

Table 1: Five first-grade index

| Index | Name |
|---------|-------------------------------|
| Index 1 | Internal environment |
| Index 2 | Risk assessment |
| Index 3 | Control activities |
| Index 4 | Information and communication |
| Index 5 | Internal supervision |

Table 2: Internal environment index system

| Index | Meaning |
|--------------------------|--|
| Governance structure | Board |
| | Managers and supervisory board |
| | Organizational structure setting |
| | Organization adaptability |
| | Control capability |
| Development strategy | Rationality |
| | Clearness |
| | Effectiveness |
| | Flexibility |
| | Scientificallness |
| Human resources policies | Human resource structure rationality |
| | Human resource development |
| | Human resource incentive mechanisms |
| | Human resource restraint mechanisms |
| | Human resource training |
| Corporate culture | Cohesion |
| | Core |
| | Competitiveness in teamwork |
| | Honesty and trustworthiness philosophy |
| | Staffs' recognition degree |
| Social responsibility | Loyalty |
| | Safety production system |
| | Product quality system |
| | Environmental protection |
| | Resource conservation |
| | Employment and employee benefits |

Furthermore, risk assessment is divided into risk identification, risk analysis and risk response. Control activities include authorization control division, property protection control, budget control and operation control. Information and communication is divided into information quality, communication systems as well as anti-fraud mechanisms. Internal oversight is decomposed into internal supervision system, internal control deficiency identification as well as control file records.

Third-grade index: Governance structure includes the Board, managers and supervisory board, organizational structure setting, organization adaptability and control. Development strategy includes the scientific and effective development strategy endowed with rationality, clearness, effectiveness, flexibility and scientificallness. Human resource policies include human resource structure rationality, human resource development, human resource incentive and restraint mechanisms. Corporate culture includes cohesion, core competitiveness in teamwork, honesty and trustworthiness philosophy, loyalty and staffs' recognition degree towards enterprise value. Social responsibility includes safety production system, product quality system, environmental protection and resource

conservation, employment and employee benefits and other factors. Risk identification consists of comprehensive risk identification mechanism, appropriate risk identification tools, risk tolerance level, critical business analysis and potential risk. Risk analysis includes risk likelihood and impact, focusing and priority control risk, risk analysis methods, risk level and negative risk effects. Risk response includes strategies, the consistency between corporate strategy and corporate culture and the matching degree of risk tolerance and risk response strategies. The division of authorization control includes incompatible duties separation control, authorization control, approved control, division control and accounting records. Property protection control is decomposed into property records, physical custody, periodic inventory, checking accounts and real property insurance. Budget control is decomposed into performance reports, performance evaluation, deviation diagnosis, responsibility discrimination and budget execution control. Operating activities are decomposed into purchasing or sale business control, cost control, production control, information system control and others. Information quality includes information timeliness and reliability. Communication system includes effective information communication within enterprise and important information feedback. Internal control systems include internal control self-assessment methods, the regular communication of evaluation results, daily supervision and responsibility implementation, supervisory personnel impartiality and independence of internal audit.

Internal control evaluation model: There is pairwise comparison between the importance of different indicators, following comparative judgment matrix structure $D = (d_{ij})_{n \times n}$, as shown in Table 3.

Judgment matrix test can be seen in Eq. 1:

$$CI = \frac{\lambda_{\max} - n}{n - 1} \quad (1)$$

Among the above equation, there are:

$$\lambda_{\max} = \frac{1}{n} \sum_{i=1}^n \frac{(AW)_i}{w_i}$$

and

$$AW_i = \begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ \dots & \dots & \dots & \dots \\ a_{n1} & a_{n2} & \dots & a_{nn} \end{bmatrix} \begin{bmatrix} w_1 \\ w_2 \\ \vdots \\ w_n \end{bmatrix} \quad (2)$$

Table 3: Judgment matrix

| | | | | |
|-------|----------|----------|-----|----------|
| C_k | D_1 | D_2 | ... | D_n |
| D_1 | d_{11} | d_{12} | ... | d_{1n} |
| D_2 | d_{21} | d_{22} | ... | d_{2n} |
| ... | ... | ... | ... | ... |
| D_n | d_{n1} | d_{n2} | ... | d_{nn} |

Table 4: Evaluation standards of internal control

| Score | Level | Meanings |
|--------------------|-------|------------------|
| $ICI \geq 95$ | A | Excellent (best) |
| $90 \leq ICI < 95$ | B | Good (high) |
| $80 \leq ICI < 90$ | C | General (low) |
| $ICI < 80$ | D | Bad (worst) |

After normalized calculation, $W = (w_1, w_2, \dots, w_n)^T$ represents index weights.

Evaluation standards of internal control can be given based on research reference and expert score shown in Table 4.

The fuzzy evaluation matrix of evaluation objects is:

$$B = (b_1, \Lambda, b_5) = C * \begin{bmatrix} B_1 \\ B_2 \\ B_3 \end{bmatrix}$$

Among them:

$$b_j = \bigvee_{i=1}^3 (C_i \wedge b_{ij})$$

$j = 1, \Lambda, 5 \quad t = 1, \Lambda, 5$.

After the normalization process is made, the evaluation of internal control evaluation performance can be given.

INTERNAL CONTROL EVALUATION COUNTERMEASURES IN XINJIANG BIOTECH SMES

Added financial indicators: In terms of financial index in internal control evaluation index system, the first index is decomposed into net profit growth rate, total assets growth rate, EVA growth rate and main business revenue growth. Debt risk can be decomposed into quick ratio, asset-liability rate and earned interests. Asset quality can be decomposed into total asset turnover, shareholders' equity turnover, inventory turnover and accounts receivable turnover rate. Profitability can be decomposed as ROE, EVA asset ratio, earnings per share and cash flow satisfaction rate.

Maximizing enterprise management: Corporate management is responsible for overseeing the internal control system and submits the effective internal control evaluation report to the Board which can improve the

better quality of internal control evaluation. Corporate executives are concerned on internal controls, combined with internal control and risk management closely so as to prevent enterprise risks. In a market economy, the goals of business activities are to maximize enterprise value. Companies need to constantly strengthen internal control management and strive to improve the efficiency and effectiveness of enterprise operations.

Further strengthening internal audit: Xinjiang biotech SMEs should promote internal audit changes from post-audit, concurrent audit to all the auditing courses. Enterprises should speed up performance auditing towards accounting information, major investment projects, external security and the related transactions in the company and the subsidiary, regulate high-risk business accounting and enhance economic efficiency audits. At the same time, biotech enterprises should explore and practice the closed-loop supervision system and establish monitoring system of responsibility division, arranging a full audit of the key project supervisors and extending monitoring network at all levels in enterprises or industries in Xinjiang.

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