

Management auditing: essential knowledge for contemporary engineering students

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ABSTRACT: The objective of this study is to implement management audit controlling for performance enterprises based on a 1995 survey by the author. The method used is the distribution of some questionnaires. The 1995 survey revealed that only about 16% (ie 33 out of 207) of chiefs of internal auditing had ever undergone a formal course on auditing. Furthermore, only 3.2 % (ie three out of 107) of Chief Executive Officers (CEOs) recognised the role of an internal auditor. These statistics are representative of the absence of internal auditing knowledge among internal auditors. The mathematical model used in this study is $Z = PzX_1X_1 + PzX_2X_2 + PzX_3X_3 + PzX_4X_4 + PzyY + PzE_3$. Additionally, the research was carried out in 2000 on 102 CEOs. Most of these have an engineering background, followed by low contribution in improving the following three elements: the quality of internal auditing; internal enterprise control; and the enterprise's performance. It is recommended that engineering students should be provided with knowledge of management auditing in order to accelerate their contribution in improving these three elements.

INTRODUCTION

State Owned Enterprises (SOEs) and Provincial Owned Enterprises (POEs) have played a significant role in the Indonesian economic system.

The State Auditor's Report of April 1996, related to the Audit on SOEs and POEs for the 1995 fiscal year, revealed that many SOEs still had not obtained an unqualified opinion [1]. They also lacked proper financial conditions [1].

In Indonesia, especially with regard to SOEs, internal audits are basically governed by Government Regulation No.3/1983. This involves the *Procedure on the State Owned Enterprises Control*, which had been approved by the Government Regulation No.12 and 13/1998.

Although identifying the most dominant factor that has contributed to the decline of most of the performance of SOEs and POEs is not easy, there are still obvious indicators, such as:

- Poor financial condition.
- Unqualified opinion given by auditors.
- The company's internal auditor has not performed optimally in the verification and evaluation of the adequacy and effectiveness of the internal control system.

Such factors illustrate the current conditions of most of the SOEs and POEs in Indonesia, which had been approved by Government Regulations No.12 and 13/1998.

The data obtained from the State Auditors in the 1995 report is illustrated in Tables 1 to 3 [2].

Table 1: Financial conditions of 309 SOEs and POEs in 1995 [2].

Company	Quantity	Good	Poor	Total
SOE	153	89	64	153
POE	156	51	105	156
Total	309	140	169	309

Table 2: Financial audit planning in the company's financial report in 1995 [2].

Company	Audit Plan	Finished	Unfinished
SOE	182	157	25
POE	358	221	137
Total	540	378	162

Table 3: Auditor opinion of the company's financial report in 1995 [2].

Company	Unqualified Opinion	Qualified opinion	Quantity
SOE	140	17	157
POE	161	60	221
Total	301	77	378

According to the above information related to SOEs and POEs, the following can be determined:

- Of the 309 companies assessed regarding their financial conditions, 169 companies (54.69%) lacked proper financial conditions.
- Of the 540 companies evaluated with regard to financial auditing, 162 companies (30%) were unable to prepare their audit on time.

- Of the 378 companies appraised concerning auditor opinion of the company's financial report, 77 companies (20.37%) had been given a qualified opinion.

Data from the Ministry of SOE Optimisation Office stated that, in 1997, from 169 President Directors, 129 (76%) have an engineering background [3].

According to the conditions stated above, it can be understood why most of the company top management do not pay proper attention to the preparation of the financial report and the audit report. This provides one of the reasons why most Indonesian SOEs and POEs have not reached good conditions and receive an auditor's unqualified opinion.

The author gained much experience in managing the accounting and auditing tasks at PT Telekomunikasi Indonesia (Telkom), between in 1971 and 1996. Prime aspects include the following:

- PT Telkom was divided into 12 regions and the chief of every regional division had an engineering background.
- Most of the managers in PT Telkom (who had an engineering background) were given auditing training in cooperation with the State Auditor. This audit training was conducted regularly between 1983 and 1992.
- As a result from the above mentioned training, financial reports and audit results improved significantly, and the company financial report from those 12 regions for the 1994 fiscal year was prepared right on time and the audit was to be done at the end of January 1995.

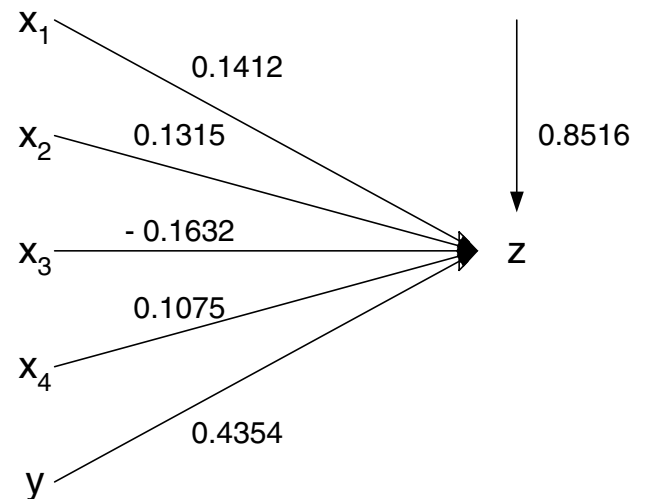
INTERNAL CONTROL

The Institute of Chartered Accountant in England and Wales related the importance of internal control and risk management [4]. It stated that:

1. A company's system of internal control has a key role in the management of risks that are significant to the fulfilment of its business objectives. A sound system of internal control contributes to safeguarding the shareholders' investment and the company's assets.
2. Internal control facilitates the effectiveness and efficiency of operations, helps ensure the reliability of internal and external reporting and assists compliance with laws and regulations.
3. Effective financial controls, including the maintenance of proper accounting records, are an important element of internal control. They help ensure that the company is not unnecessarily exposed to avoidable financial risk and that financial information used within the business and for publication is reliable. They also contribute to the safeguarding of assets, including the prevention and detection of fraud.
4. A company's objectives, its internal organisation and the environment in which it operates are continually evolving and, as a result, the risks it faces are continually changing. A sound system of internal control therefore depends on a

thorough and regular evaluation of the nature and extent of the risks to which the company is exposed. Since profits are, in part, the reward for successful risk-taking in business, the purpose of internal control is to help manage and control risk appropriately rather than to eliminate it [4].

The author's survey on 102 Indonesian SOEs and POEs shows that the internal controller has the most significant influence over a company's performance, compared to other managers, according to the mathematical equation approaches (see Figure 1) [3].



Note: X₁ Top manager
 X₂ Internal auditor
 X₃ Production manager
 X₄ Financial manager
 Y Internal control
 Z Company's performance

Figure 1: Managers and internal control influence on company's performance.

The following results can be shown according to Figure 1:

- A company's performance (Z) is directly influenced by the top manager (X₁) of about $(0.1412 \times 0.1412) \times 100\% = 1.99\%$, which is a relatively low value.
- A company's performance (Z) is directly influenced by the internal auditor service quality (X₂) of about $(0.1315 \times 0.1315) \times 100\% = 1.73\%$, which is a relatively low value.
- A company's performance (Z) is directly influenced by the production manager (X₃) of about $(-0.1632 \times -0.1632) \times 100\% = 2.66\%$, which is relatively low value.
- A company's performance (Z) is directly influenced by the financial manager (X₄) of about $(0.1075 \times 0.1075) \times 100\% = 1.16\%$, which is a relatively low value.
- A company's performance (Z) is directly influenced by internal control (Y) of about $(0.4354 \times 0.4354) \times 100\% = 18.96\%$, which has a high value and significant influence.

SCOPE OF AN INTERNAL AUDIT

It has been stated that the scope of internal auditing should:

... encompass the examination and evaluation of the adequacy and effectiveness of the organisation's system of internal control and the quality of performance in carrying out assigned responsibility [5].

According to this scope, the Institute of Chartered Accountants in Australia (ICAA) affirmed that:

The scope and objectives of internal audit vary widely and are dependent upon the size and structure of the entity and the requirement of its management. Normally, however, internal audit operates in one or more of the following areas: (1) Review of the accounting system and related internal controls; (2) Examination for management of financial and operating information; and (3) Examination of the economy, efficiency and effectiveness of operations including non-financial control an organization [6].

INTERNAL AUDIT EDUCATION FOUNDATION (IAEF/YPIA)

According to research conducted by the author in 1995, of 207 State Owned Enterprise (SOE) chiefs of internal auditors, only 33 persons (16%) had learned about auditing before being admitted as chief [2]. Table 4 lists the type of training given up to August 2002.

There are 359 organisations that have sent their representatives to attend training at the Internal Audit Education Foundation (IAEF). This includes SOEs, private companies, non-profit organisations and individuals [7].

QUALIFIED INTERNAL AUDITOR

Since its inception in 1996 and through to August 2002, the Qualified Internal Auditor (QIA) certification has graduated 1,393 internal auditors. Their educational backgrounds are presented in Table 5.

CONCLUSIONS

From this study, it can be concluded that:

- Around 76% of the State Owned Enterprises' Top Management and a major Provincial Owned Enterprises have an engineering education background.
- Of 1,393 QIA certification holders up to the end of August 2002, 265 persons or 19.02% have an engineering education background.
- Internal control systems in 102 State Owned Enterprises and Provincial Owned Enterprises in Indonesia have quite a significant influence on the achievement of the company performance.

Table 5: Training participants' education level and specialties given (up to August 2002).

Education	Specialty	Amount
Bachelor	Accountancy	204
Bachelor	Engineering	265
Bachelor	Economics	255
Bachelor	Law	16
Bachelor	Psychology	7
Bachelor	Medical Doctor	7
Bachelor	Pharmacy	3
Master	Accountancy	14
Master	Economics	43
Master	Management Business	23
Diploma, Senior High School	Other	556
	Total	1,393

RECOMMENDATION

According to past experiences and in order to prepare the future manager, it is important to provide students from the engineering faculty with a course on management auditing for one semester. This should be arranged over 14 meetings with a syllabus as shown in Table 6.

It is hoped that engineering students will understand and realise the importance of the manager's role in managing a company given the overview received from the management audit course as suggested above.

Table 4: Type of training given up to August 2002 [7].

Type of Training	Regular Participants	IHT Participants	Total Participants
1. Basic I	1,520	532	2,052
2. Basic II	1,115	559	1,674
3. Advance I	1,117	585	1,702
4. Advance II	989	730	1,719
5. Special Advance	156	79	235
6. Managerial Level	872	664	1,536
7. Internet/ACL	67	-	67
8. Workshop/symposium	1,257	217	1,474
9. EDP Officer	186	60	246
10. EDP Advance	31	-	31
11. EDP Executive	109	31	140
Total (persons)	7,419	3,457	10,876

Table 6: Syllabus of management audit course for student in the engineering faculty.

Week	Subject
1	Management
2	Strategic Management
3	Business Ethics
4	Risk Management
5	Systems of Internal Control
6	Basic Accounting
7	Financial Reporting
8	Auditing
9	Internal Auditing
10	Operational Auditing
11	Committee Auditing
12	Management and Audits (Auditor)
13	Management and Internal Audits (Auditor)
14	Management and Committee Audits

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