



Internal auditors: their role in the institutions of higher education in Malaysia

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Abstract

Purpose – To provide evidence on the establishment of the internal audit function in the higher education institutions in Malaysia and also to obtain the perceptions of the management of the higher education institutions towards the role and scope of the internal audit.

Design/methodology/approach – Sample consisted of 17 public universities and 49 private universities in Malaysia and variables used by Gordon and Fischer were adopted for this study.

Findings – The findings revealed that a substantial number of private institutions of higher education do not have an internal audit function. The study also indicates that the management of both types of institutions have similar perceptions on the role of internal auditors and the important audit areas as there are no significant differences between public and private institutions of higher education.

Research limitations/implications – The main limitation of this study is that it only examines whether the scope of internal audit covers the areas mentioned by treasury circular or the IIA Guideline. It ignored the extent to which the higher education institutions comply with both guidelines. It is, therefore, suggested that future research could consider the degree of compliance to the above guidelines. The difference in the role of internal auditing between the education sector and other industries represents an interesting area for further research. Also, since this study only focuses on the perceptions of the management and the internal auditor themselves, the perception of other parties such as regulators and the audit committee on the role of internal audit in institutions of higher education will be an interesting area to explore for future research.

Practical implications – The failure to establish an internal audit function in the private universities calls for government intervention to ensure the existence of an internal audit function in the private sector higher education institutions.

Originality/value – The findings of this paper will be important in further refining the scope of the internal audit function in the higher education institutions in Malaysia, especially to policymakers concerned with regulations governing the internal audit function.

Keywords Internal auditing, Corporate governance, Higher education, Malaysia

Paper type Research paper



Introduction

Similar to their counterparts in industry, colleges and universities are facing increasing demand for accountability (Chamberlain *et al.*, 1993). Students, for example, demand a strong institutional commitment to quality teaching; politicians and oversight agencies want assurances that educational institutions are contributing to some definition of public good (e.g. economic development), as well as complying with laws and procedural regulations; donors and grant providers ask for proof that their contributions and investments have been well spent in terms of their own agendas and priorities; and alumni want an assurance that the reputation of their alma mater is being advanced so that the value of their degree continues to grow (Kearns, 1998).

The internal auditing function as part of the corporate governance structure, plays an increasingly important role in monitoring the internal control system of the company and its financial reporting systems (Khas, 1999). The demand for good corporate governance now equally applies to institutions of higher education as well as the corporate sector.

Accordingly, university management must give equal attention to the processes and governance mechanisms of their institutions (Balderston, 1974). Internal auditing was identified as one of the key participants to promote good governance in the corporate sector (Ali Abdul Kadir, 2000); hence, the management of institutions of higher education should realize the importance of the internal audit function in their institutions.

The aims of this paper are to determine whether the internal audit function are being established in the higher education institutions in Malaysia and its role in supporting the governance of the institutions. This study also seeks to determine the perceptions of the management of the higher education institutions with respect to the role of the internal auditors and the important audit areas. Finally this paper intends to establish whether there are differences between private and public higher education institutions with regards to the scope, role and the perception of the management towards the internal audit function. For the abovementioned objectives, the perceptions of the board of directors, vice-chancellor, financial controller, registrar and the internal auditors were obtained.

Literature review

Treasury Circular No. 2/1979 (Implementation of internal audit in a government agency of federal territory) requires the statutory bodies to establish an internal audit department. As part of the statutory bodies, public institutions of higher learning are bound to comply with this circular. Meanwhile, in the private sector, Bursa Malaysia Revamp Listing Requirement requires public listed companies to establish an internal audit department. However, the listing requirement only applies to private institutions of higher education where their holding companies are incorporated as public listed companies. Currently, there is no guideline issued by the government that requires the private institutions of higher education to establish an internal audit department.

Stewardship of private enterprises has been long been recognized as an important concept by investors and standard setters (Chamberlain *et al.*, 1993). Colleges and universities, like other not-for-profit entities, are facing increased demands to become more accountable to their constituencies by achieving more efficient and effective utilization of existing resources and improving their quality. Internal auditors are in the best position to assist administration at all levels of a university to accomplish the stewardship function objectively (Chamberlain *et al.*, 1993).

Drucker (1975) observed that to ensure institutions derive the most benefit from internal auditing, the following are essential:

- the governing body should formally establish an internal auditing department;
- an audit committee of the governing body should oversee the coordination of internal and external audit operations; and

- the internal auditing department should report to an official who will ensure the deficiencies are promptly considered and corrective actions taken.

The professional internal auditor must have independence to fulfill his/her professional obligation, to render a free, unbiased, unrestricted opinion, and to report matters as they are, rather than as some executives would like to see them (Sawyer, 1988; as cited by Vanasco, 1996). Independence permits internal auditors to perform their work freely and objectively. Without independence, the desired results of internal auditing cannot be realized (Vanasco, 1996). Vanasco (1996) also concluded that the role of the internal auditor requires unrestricted independence in order to perform a variety of duties for the organization they serve. For internal auditors, practical independence needs to be constituted through the organizational and reporting status of the internal audit department (Azad, 1992). Standards on internal auditing reiterate the importance of maintaining the auditors' independence via Attribute 1100 which states that the internal audit activity should be independent, and internal auditor should be objective in performing their work. Further, Attribute 1110 explains that the chief audit executive should report to a level within the organization that allows the internal audit activity to fulfill its responsibilities. Also, Attribute 1110.A1[1] explains that internal audit activity should be free from interference in determining the scope of internal auditing, performing work, and communicating results.

Gordon and Fischer (1996) provide mixed results concerning the degree of independence experienced by internal auditors for colleges and universities. The most affirmative evidence of independence was reflected in those auditors who are hired by the president and/or board of directors, have written authority for unrestricted access to records and regularly meet with the board. These are all formal indicators of evidence; informal indicators may be more important. One informal way that the internal auditor's work can be influenced is through the board and administration's perceptions of the quality of the internal auditor's work. Further, a survey by Azad (1992) concluded that reporting to the audit committee was the most important factor for improving the independence.

One way to improve efficiency and effectiveness of operations is through the implementation of operational auditing (Drucker, 1975; Henke, 1972). Azad (1994) found that the institutions of higher education that participated in his survey utilized operational auditing to some degree, but the utilization was rather limited in scope. His study also concluded that no significant differences existed between the scope of operational auditing between private and public colleges and universities. From this result, it may be argued that the type of institution, whether public or private, does not favor the utilization of operational auditing. Both institutions might use operational auditing to a certain extent, as a matter of economic necessity only. For example, the academic departments may be given priority by the internal auditors in view of the importance of this function in the institutions of higher education. Rezaee *et al.* (1999) revealed that respondents perceived the traditional roles of compliance audits, financial fraud audits and financial reporting audit as being the most important compared to the more proactive role of internal auditors in participating with administrators in college and university decision making.

Both studies by Azad (1994) and Rezaee *et al.* (1999) showed that institutions of higher education viewed the traditional roles of compliance auditing and financial

reporting audit as more important than operational auditing. The emerging organizational governance and accountability issues all over the world should shift the focus of internal auditors to more involvement in evaluating the risk exposure, control and governance of the organization. Management, who are in the position to understand the needs of the business and the accountability expectations, have to properly identify the area that should be given priority in audit.

Nevertheless, the study by Rezaee *et al.* (1999) only considered the perception of the vice-president of finance, but this might affect the result with more bias to the traditional role of internal auditing since the respondents were very familiar with this area. If more than one category of respondent were selected such as the registrars or the board of directors, their perceptions might be different.

Research methodology

Public and private institutions of higher education differ in terms of funding sources and are regulated by different acts. Public institutions of higher education are regulated under the Colleges and Universities Act 1971 and private institutions of higher education are regulated under the Private Education Act 1996. Being a statutory body, a public institution of higher education is hypothesized to demonstrate a better governance system than a private institution because it is bound to comply with various acts that are applicable to other Statutory Bodies. However, a private institution does not have many regulations which demand exact compliance and hence the following hypotheses are tested in the institutions of higher education in Malaysia:

- H1. There is significant difference between the scope of internal auditing in public and private institutions of higher education.
- H2. The perceived importance of audit areas is different between the management of public and private institutions of higher education.
- H3. The perceived importance internal auditor roles is different between the management of public and private institutions of higher education.
- H4. There is a significant difference between the perceptions of internal auditors in public and private institutions of higher education.

Research findings

The sample consists of public and private institutions of higher education in Malaysia, which offer degree programs and 3 + 0 degree program (a twinning program with a foreign university where all the study is undertaken in Malaysia) approved by LAN (National Accreditation Board). The information is extracted from the ministry of education web site. Before the survey was sent out to the respondents, telephone calls were made to all the institutions to determine the existence of internal audit function in their institutions. The telephone survey indicated that 18.4 percent of private institutions of higher education have internal audit departments and all of them are either incorporated as public listed companies or subsidiary of public listed companies. For the public institutions of higher education, 88.2 percent of institutions have established an internal audit department. The remainder are the newest institutions, which have been in operation for a period of less than three years.

The respondents as shown in Table I above consist of vice chancellor/president, financial controller, member of board of directors, head of internal audit department and internal auditors. Total institutes of higher education in Malaysia are made up of 17 public institutions of higher education and 49 private institutions of higher education. The sample is partitioned by type of institutions of higher education (public or private). Questionnaires were mailed to the financial controller, vice chancellor or head of the institution, chief internal auditors, internal auditors, board of directors and registrar of the institutions of higher education. A majority of questions requested a simple "yes" or "no" response as to the role of the internal auditor.

A χ^2 test is used to establish the relationship between the types of the institutions and the scope of internal auditing. Several questions require the respondents to rank the priority of the internal audit work. Respondents are required to indicate in a Likert scale their level of agreement with the statement, from complete agreement (score = 5) to complete disagreement (score = 1). Frequencies are calculated for each variable of interest. A Mann-Whitney rank sum test, a nonparametric test analogous to the parametric two-sample *t*-test, is used to analyze the frequencies. The analysis was then made based on 99 responses from the management of institutions of higher education which consists of vice chancellor/president, financial controller, registrar and member of board of director in both public and private institutions of higher education.

On the existence of an internal audit department within their respective institutions, all of the respondents from public institutions of higher education stated that their institutions have an internal audit department, whereas only 40 percent of respondents from private institutions of higher education stated the same.

Respectively, 33.3 and 46.7 percent of private and public institutions' heads of internal audit department responded to the questionnaire. All the heads of internal audit departments of public institutions of higher education who responded, indicated the budget allocated for the internal audit department are less than RM100,000, whereas 33.3 percent of heads of internal audit in private institutions of higher learning stated that their budget are between RM100,000-150,000. The limited amount of budget allocated to the internal audit departments might restrict the scope of their audit activities.

All the heads of internal audit of public and private institutions of higher education who responded indicated that their audit covers the review of the operations to ensure compliance with laws, regulations and contracts. Further, all respondents also stated that the internal auditors were involved in suggesting improvements to internal control

Institutions	Respondent	Number of response	Sample size	Percentage of response
Public	Vice chancellor/president	6	17	35.3
	BOD	10	17	58.8
	Financial controller	9	17	52.9
	Registrar	8	17	47.1
Private		33	68	
	Vice chancellor/president	10	49	20.4
	BOD	2	49	4.1
	Financial controller	29	49	59.2
	Registrar	25	49	51.0
		66	196	

Table I.
Total sample and
population

procedures in the institutions. The results suggest that, on the issue of internal control, internal auditors in both institutions comply with the requirements of the IIA GUIDELINES and the Treasury Circular.

With regards to the type of audits performed in the institutions of higher education, 80 percent of the respondents stated that their audit covers both management and financial audit. This suggests that management auditing is also important as evidenced by nearly half of the respondents (49.6 percent) who believe that financial audit should not be given priority over operational auditing.

On the question of EDP audit, 43 percent of respondents in public institutions of higher education cover EDP audit in their organization, while in private institutions of higher education, only 33 percent of respondents do so. This indicates that less emphasis is given in this area, which in the researcher's opinion is due to the lack of technical resources and skilled personnel, or alternatively may be the reluctance in the part of internal auditors to venture in the area outside the traditional auditing. However, it might also relate to the restricted budget allocated to internal audit department. The results are consistent with the finding of a survey by the Malaysian Institute of Accountants in 1989. Findings show that institutions of higher education are under-resourced in terms of auditing in a technological environment.

On the scope of the internal auditing in institutions of higher education, questionnaires were sent to the head of internal audit. The analysis is done based on the ten responses received from heads of internal audit. A χ^2 test was used to determine empirically whether the type of institutions influence the scope of audit as presented in Table II.

A review of Table II shows that the significant value associated with χ^2 for all of the variables examined exceeded the confidence level of 0.05. This implies the hypothesis that there is a significant difference between the scope of internal auditing in public and private institutions of higher education cannot be accepted at 0.05 confidence levels. Hence, it can be inferred that there is no significant difference between the scope of internal auditing in both public and private institutions of higher education. A similar conclusion was reached in a study conducted by Azad (1994) on operational auditing in US colleges and universities. Azad's results suggest that since the type of institution does not influence the scope of internal auditing, it is, therefore, influenced by the existence of mandatory guidelines from the regulators. Since both types of institutions' head of internal audit department who responded in this study are

Variables	χ^2 statistic	Significant value
Types of audit	2.857	0.24
EDP audit	0.079	0.778
Audit priority based on risk assessment	1.071	0.301
Audit on institutions exposure to risk	0.023	0.880
Audit the operations to ensure goals and values of operations are properly communicated	5.833	0.016
Audit of operations and program to ensure consistency with institutional values	0.476	0.49
Audit on criteria to determine achievement of institutions goals	0.375	0.540
Timely report to management	1.071	0.301

Table II.
 χ^2 statistics

required by their regulators to follow the respective internal audit guidelines, the compliance to the requirement of those guidelines is expected. In addition, as the Treasury Circular and IIA GUIDELINES mention the same role for internal auditors (except that Treasury Circular does not mention about risk assessment), the result of no significant difference between the scopes of internal audit in both institutions of higher education might be influenced by this factor. Therefore, it can be concluded that the *HI* is not supported since there is no significant difference between the scope of internal auditing in private and public institutions of higher education.

The questionnaire to financial controller, registrar, board of directors and part 2 of the questionnaire to the vice chancellor/president also requires the respondents to state their general perceptions on the internal audit. All respondents believe that colleges and universities should have internal audit functions. Only 10.1 percent of the respondents classify internal audit as detrimental to productivity and 13.1 percent classify internal audit as a necessary nuisance, whereas 75.8 percent of the respondents classify internal audit as a valuable service. 45.5 percent of respondents classify the internal audit job as a consultant to organization, while 32.3 percent classify internal audit as operating management and 8.1 percent classify internal audit as a prosecuting attorney. The study also reveals that 39.4 percent of respondents believe that the internal auditor should be part of the management team. On the issue of to whom the internal auditors should report, the survey shows that 45.5 percent of respondents believe that the internal auditor should report to the audit committee, 31.3 percent to the President, 19.2 percent to the board of directors and only 4 percent believe that the internal auditor should report to financial controller. The result suggests that the management of institutions of higher education view internal auditing as an independent function in the organization.

The questionnaire also requires the respondents to give their opinion on important audit areas in institutions of higher education. There are five audit areas listed in the questionnaire, which are compliance audit, financial fraud audit, financial reporting audit, efficiency, economy and effectiveness audit, and system development and technology audit. Tables III-V show the results of the statistical testing.

	Type of institutions	N	Mean rank	Sum of ranks
Compliance audit	Public	33	50.56	1668.50
	Private	66	49.72	3281.50
	Total	99		
Financial fraud audit	Public	33	53.11	1752.50
	Private	66	48.45	3197.50
	Total	99		
financial reporting audit	Public	33	60.05	1981.50
	Private	66	44.98	2968.50
	Total	99		
Efficiency, economy and effectiveness audit	Public	33	56.05	1849.50
	Private	66	46.98	3100.50
	Total	99		
system development and technology audit	Public	33	53.35	1760.50
	Private	66	48.33	3189.50
	Total	99		

Table III.
Mean rank of important
audit areas in institutions
of higher education

Type of institution		Compliance audit	Financial fraud audit	Financial reporting audit	Efficiency, economy and effectiveness audit	System development and technology audit
Public	Mean	4.48	4.33	4.45	4.58	4.30
	N	33	33	33	33	33
	Std. deviation	0.870	0.777	0.666	0.614	0.810
Private	Mean	4.52	4.06	3.92	4.27	4.02
	N	66	66	66	66	66
	Std. deviation	0.728	1.094	0.966	0.869	1.170
Total	Mean	4.51	4.15	4.10	4.37	4.11
	N	99	99	99	99	99
	Std. Deviation	0.774	1.004	0.909	0.803	1.068

Table IV.
Mean of important audit areas in institutions of higher education

	Compliance audit	Financial fraud audit	Financial reporting audit	Efficiency, economy and effectiveness audit	system development and technology audit
Mann-Whitney	1070.50	986.500	757.500	889.500	978.500
Wilcoxon W	978.500	3197.500	2968.500	3100.500	3189.500
Z	-0.162	-0.820	-2.618	-1.653	-0.880
Asymp. Sig. (two-tailed)	0.871	0.412	0.009	0.098	0.379

Table V.
Test statistic of important audit areas in institutions of higher education

Note: Grouping variable: type of institutions

Table III presents the mean of important audit areas in institutions of higher education. This question used a five point Likert scale, ranging from 1 – not important to 5 – very important. Compliance audit is considered as the most important audit area (4.51). This shows that the priority of internal auditing in the institutions surveyed still centers on the traditional role of compliance auditing. This is consistent with the findings from previous studies by Rezaee *et al.* (1999) and Gordon and Fischer (1996).

However, there is a move to expanding the role of internal auditing, i.e. efficiency, economy and effectiveness audit (4.37). The next most important audit areas are financial fraud audit (4.15) followed by system development and technology audit (4.11) and financial reporting audit (4.10). Therefore, there is some evidence that the priority of internal audit has moved from financial reporting to other areas of importance in the organization.

One significant difference was found between the public and private institutions of higher education in the area of financial reporting audit (prob. = 0.05). The finding shows that management of public institutions of higher education regards financial reporting audit as fairly important (mean = 4.45), whereas management of private institutions of higher education only considered financial reporting audit as moderately important (mean = 3.92). This might result from the Treasury Circular Guideline, which mentions the financial audit as the main function of the internal audit

department. Therefore, management's view is in line with the requirement stated in Treasury Circular.

On the other items no other significant differences were found between public and private institutions. Therefore, the second hypothesis that there is a significant difference in the perceived important audit areas between the management in public and private institutions of higher education cannot be accepted at 0.05 confidence level.

Question 9 in the questionnaire surveys the important roles of internal auditors, which are to assess the university's financial reporting; to assess the efficiency and effectiveness of university's programs and make recommendations; ensure achievement of institutional goals and objectives; monitor adequacy and effectiveness of the institution's internal control systems; assist all members of management and other administrators on financial matters; assist all members of management in the effective discharge of their responsibilities; monitor compliance with both internal and external rules and regulations; and evaluate and monitor the effectiveness of the institution's risk management systems. Results of the survey are tabulated according to types of institutions.

Table VI shows the results of the survey of perceived important internal auditor roles in institutions of higher education. Those roles considered to be the most important internal audit roles are monitoring compliance with internal and external rules and regulations (4.54); monitoring adequacy and effectiveness of institutions

Internal auditor's roles	Public mean N = 33	Private mean N = 66	Total mean N = 99	Significant value
To assess the university's financial reporting	4.24	3.76	3.92	0.017*
To assess the efficiency and effectiveness of university programs and make recommendations	4.36	4.18	4.24	0.246
To ensure achievement of institutional goals and objectives	4.36	4.06	4.16	0.197
Monitor adequacy and effectiveness of institution's internal control system	4.70	4.41	4.51	0.007*
Assist all members of management and other administrators on financial matters	4.09	3.64	3.79	0.054
Assist all members of management in the effective discharge of their responsibilities	4.15	3.85	3.95	0.235
Monitor compliance with both internal and external rules and regulations	4.73	4.44	4.54	0.048*
Evaluate and monitor the effectiveness of institution's risk management systems	4.30	4.02	4.11	0.105
Assessing Institution's exposure to risks	4.15	3.95	4.02	0.219
Evaluate the institution's control systems	4.61	4.32	4.41	0.139
Review the operation to determine the accomplishment of institution's goals and objectives	3.65	3.41	3.49	0.228
Audit of the criteria set by management to measure goal accomplishment	3.61	3.25	3.37	0.096

Table VI.
Internal auditor's roles in institutions of higher education

Note: *Significant at 0.05 confidence level

internal control systems (4.51); and evaluating an institution's control systems (4.41). This finding is consistent with the finding of Rezaee *et al.* (1999). Gordon and Fischer (1996) also found that internal auditors in education institutions are more likely to put more effort into compliance and financial audits.

The next most important role is to assess the efficiency and effectiveness of the university's programs and make recommendations (4.24). However, this variable was ranked last in Rezaee *et al.* (1999). The next most important functions are to ensure achievement of institutional goals and objectives (4.16) and evaluate and monitor the institution's risk management systems (4.11). According to the IIA Guideline[2], monitoring the institution's risk management and control system and contributing to the institution's governance process are part of the internal auditor's function. This finding shows that management are aware of the function of internal auditors in this changing environment. Roles which are considered to be moderately important are assisting members of management in effective discharge of their responsibilities (3.95), assessing the university's financial reporting (3.92) and assisting all members of management and other administrators on financial matters (3.79).

There are few statistically significant differences found between the means of perception of roles between public and private institutions of higher education on the assessment of financial reporting, monitoring effectiveness of institutions internal control systems and monitoring compliance with internal and external rules and regulations (statistically significant at 0.05 level of confidence). The finding shows that a significant difference in perception is found on the traditional role of internal auditing. A review of Table VI reveals that assessment of financial statements (mean = 4.24), monitoring the adequacy of organization internal control (mean = 4.7) and monitoring compliance with rules and regulations (mean = 4.73) are regarded as fairly important roles of the internal auditor. This also might be influenced by the requirement of the Treasury Circular, which considered the above roles as important functions of the internal audit department.

There are no significant differences found in the other internal auditor roles and, therefore, the *H3*, that the perceived important internal auditor roles differ between the management of public and private institutions of higher education, cannot be accepted at 0.05 confidence level.

To determine empirically whether there is a significant difference between the perceptions of internal auditors in public and private institutions of higher education, this study surveyed the internal auditors from both types of institution on their perception on certain statements as adapted from a study done by Gordon and Fischer (1996) in the USA. Results of the study in Malaysia are shown in Table VII below.

Table VII above reveals that in public institutions of higher education, the highest mean is found on the question of whether audit recommendations are well received by the management (mean = 4.5). Meanwhile, in private institutions of higher education, the highest mean is found on the good access to the board of directors and record of the auditee (mean 4.2).

Two significant differences (probability < 0.05) were found when the internal auditors were asked whether their recommendations were given consideration and whether they were well received. Overall, the results show that auditors in public institutions of higher education have a higher mean of perception on every variable tested, as compared to auditors in the private institutions of higher education.

Internal auditors perception	Public	Private	Mean	Significant
Access to board of directors	4.00	3.2	3.83	0.2
Access to president	4.28	4.2	4.26	0.682
Access to all records	4.50	4.2	4.43	0.707
Contacted for specific information	3.39	2.8	3.26	0.382
Encouraged to clarify findings with auditees	4.33	4.0	4.26	0.684
Management often decides not to accept recommendation	2.11	2.2	2.13	0.813
Part of management team	3.00	3.0	3.00	0.69
Solicited for management decision	3.61	3.4	3.57	0.588
Employment is jeopardized by negative finding	2.44	2.4	2.43	0.938
Working relationship encouraged with external auditors	3.61	3.0	3.48	0.31
Effectiveness related to professional standing	4.00	3.2	3.83	0.159
Recommendation given careful consideration	4.44	3.4	4.22	0.004*
Generally recommendations well received	4.50	3.6	4.30	0.009*
Encouraged to have a working relationship with auditees	4.33	3.8	4.22	0.187
Well respected by management	4.33	3.8	4.22	0.149

Table VII.
Internal auditors'
perceptions

Note: *Significant at 0.05 confidence level

Interestingly, both auditors in public and private institutions of higher education have similar means on the question whether the internal auditors are part of the management team (mean = 3). Both institutions also have their lowest mean on the perception whether the management often rejects their recommendation. Since there are only two significant differences out of fifteen questions asked, hence *H4* cannot be supported.

Limitations and conclusion

This study provides useful insights on the role of internal auditing in institutions of higher education in Malaysia, although only the perceptions of management were obtained. Perhaps, a future study could be undertaken to explore the perception of other parties such as regulators and the audit committee on the role of internal audit in institutions of higher education. This study only examines whether the scope of internal audit covers the area mentioned by Treasury Circular or the IIA Guideline but it does not measure the extent of compliance to both guidelines. As such, future research could consider the degree of compliance to the above guidelines. Further, the difference in the role of internal auditing between the education institutions and other industries could also be an interesting area to explore.

Nowadays, public institutions of higher education are not the sole providers of higher education in Malaysia. The demand for private higher education in Malaysia will continue to rise. This will be due to a growing population of high school graduates, the rising income of parents, and the increasing costs of providing public higher education. On the supply side, the government envisaged that there would be 120,000 places for degree and diploma courses offered by the private sector. Of these, 17,000 (14 percent) will be "reserved" for foreign students. Lee (1999, p. 97; as quoted by Mahdzan Ayob, 2000) reports that, in 1998, there were already 11,733 foreign students

studying in the 12 private universities in Malaysia, compared to only 5,635 in 1996. The numbers of students in private institutions of higher education continues to rise and as at May 31, 2001 there were 232,608 students in the private colleges and universities in Malaysia.

Overall, the findings show that public institutions of higher education comply with the guidelines issued by Treasury Circular. The internal auditors reported that they provide the service as promulgated by the Treasury Circular. However, the Treasury Circular 2/79 (1979) was issued and needs to be revised to be in line with current business conditions. For instance, it does not cover risk assessment issues as required by the IIA Guideline. However, its compliance is not mandatory for the institutions, as the IIA Guideline is only enforceable against IIA members. Given the positive views from the management of the institutions surveyed, it is suggested that the government take necessary action to make it mandatory for every government institutions in establishing the internal audit function.

Internal auditing as part of the governance structure in organizations can be a mechanism to assist the management in providing better control of the institution's resources and quality of education it provides. Government should consider revising the Treasury Circular Guideline to better reflect the changing external environment, especially to give more emphasis to the risk management issue.

Given the fact that private institutions of higher education are becoming substantial providers of higher education in Malaysia, steps should be taken to strengthen their governance systems. This study reveals the importance of internal auditing in institutions of higher education and hence, the ministry of education should consider requiring each private institution of higher education to establish an internal audit function.

Notes

1. Obtained from the Institute of Internal Auditors (2001) website ([www.theiia.org/?doc_id = 1499](http://www.theiia.org/?doc_id=1499)) accessed on September 19, 2005.
2. Obtained from IIA website ([www.theiia.org//doc_id = 503](http://www.theiia.org//doc_id=503)) accessed on September 19, 2005.

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