

Auditing in Egypt: Diagnoses and Remedies by Two Groups

Mohamed A. Wahdan

Menoufia University, Egypt - Maastricht School of Management, The Netherlands

Pieter Spronck

IKAT, Faculty of Liberal Arts and Sciences, Universiteit Maastricht, The Netherlands

Hamdi F. Ali

Maastricht School of Management, The Netherlands (ali@msm.nl)

Eddy Vaassen

AIM, Faculty of Economics, Universiteit Maastricht, The Netherlands

H.Jaap van den Herik

IKAT, Faculty of Liberal Arts and Sciences, Universiteit Maastricht, The Netherlands

Abstract

The purpose of the paper is to diagnose the present status of the auditing profession in Egypt. The prevailing questions are: what are the current challenges in the Egyptian audit environment, what are the origins of these challenges, what are the auditors' preferences and strategies, which tools do they use, and to what extent are they supported by computers? To diagnose the current auditing situation in Egypt, a questionnaire was presented to two groups; thirteen auditors with terminal academic degrees and nineteen practitioners. The results of the study indicate that the two groups of auditors believe that the auditor's work is used as a guide for investment and valuation of companies. Three main points of research are: a scarcity of experienced auditors, a lack of professional ethics standards, and variations of the auditor's judgements. The results of the questionnaire indicate that both groups agree as to the presence of (1) the shortage of experience and expertise, (2) the lack of professional ethics, and (3) the auditor's role in relation to the expected role of a proposed KBS. However, significant differences exist in their perception of the relative importance of these variables. The interviewees agreed that a knowledge-based system (KBS) could be used for training purposes to overcome the lack of experience and expertise. However, significant differences are observed between the two groups when the auditors were offered to use a KBS directly in their work. It may be concluded that the construction of a KBS will help remedy the lack of Egyptian auditors expertise and experience and provide an adequate answer to some of the challenges.

1. Introduction

The main purposes of the paper are diagnosing the current auditing framework and challenges in Egypt and exploring the possibility of developing a knowledge-based system (KBS) to formulate the auditor's opinion on financial statements. During the 1960s, economic progress in Egypt took place by three developments: (1) central economic management, (2) nationalisation, and (3) expansion of the public sector. With respect to the latter, we remark that the Central Auditing Organisation became responsible for auditing the public sector. In the mid-1970s, the Egyptian government followed an open-door policy by liberalising the national economy, and initiated several improvements to the accounting and auditing standards and practices. These developments were accompanied by increasing competition among audit firms, decreasing audit fees, and an increasing pressure to enhance the efficiency of audits without decreasing effectiveness.

The research problem can be defined in the following questions: what are the current challenges in the Egyptian audit environment, what are the origins of these challenges, what are the auditors' preferences and strategies, which tools do they use, and to what extent are they supported by computers? The four objectives of this paper are: (1) to determine to what extent the challenges are felt by the two groups of auditors (we distinguish between auditors with terminal academic degrees and practitioners), (2) to determine to what extent the two groups of auditors are willing to accept a KBS in their daily practice, including the determination of the audit assessments of a (proposed) KBS,

(3) to determine the expectations of the two groups with respect to the future development of KBSs, and (4) to make a thorough analysis of the different perceptions of the members of the two groups.

In Egypt, it is allowed for the Ph.D. holders to practice auditing as professional of the highest standards after two years of university teaching (such practice is not applicable in the western countries). This is contrast with Bachelor holders in accounting who practice in auditing firms immediately after graduation and are not likely to be exposed to the more recent development in research and publications. Furthermore, differences may well exist as to the presence of the ethical environment prevailing in the teaching profession, and to the lower level of dependency on auditing income of university professors in view of the guaranteed income from their professorship job. Thus, one might start with the belief that the auditors with terminal academic degrees who are holding university professorship at the same time are more likely to provide more integrated and up to date knowledge than the pure practitioners, since the auditors with terminal academic degrees have access to theoretical and practical knowledge and research required by their positions. However, empirical research proved that expert auditors might make similar assessments on similar inputs. The differences, if they exist, depend mainly on human decisions, human knowledge, interpretation (O'Leary, 2003), and/or motivations; i.e., this depends on the accountability and the rewards structure in the audit environment (Libby, 1995). Based on the Libby and Luft (1993) model, we expect that differential background knowledge and experience between those two groups would lead to differences in their opinions and judgements (Libby, 1995; O'Leary, 2003). Therefore, we will test whether there are significant differences in perception between auditors with terminal academic degrees and professorship jobs and pure practitioners, regarding the current auditing framework and challenges in Egypt. To accomplish the objectives of the paper, a questionnaire was presented to the two groups of auditors; thirteen auditors with terminal academic degrees and nineteen practitioners.

The results of the study indicate that the two groups of auditors believe that the auditor's work would be used as (1) a guide for investment, (2) valuation of companies, and (3) sometimes in predicting bankruptcy. Furthermore, the respondents feel that the auditor's work facilitates the process of economic development via the presentation of reliable information concerning the financial position of the companies.

There is a general agreement between the two groups on the presence of variations among the auditors' judgements, resulting from the differences in expertise and experience when performing the audit. The presence of (1) high pressure on the auditors in terms of fees paid by the auditees, (2) lack of protective regulations, (3) lack of professional standards, and (4) weaknesses of the ethical standards in the profession are viewed as important factors of the origin of these challenges. Furthermore, the complexity of the environment in terms of a changing environment, and the challenges involved in the use of a computer technology in auditing have aggravated the variations of judgements in reporting. However, despite this general agreement, significant differences are observed between the two groups as to the shortage of experience and expertise, the lack of professional ethics, and the importance of the auditor's role in relation to the expected role of a proposed KBS. Apparently, the auditors with terminal academic degrees are more likely to stress the professional ethics problems, the training and experience issues, and they are more likely to be up to date and aware of the new development in technology and how it helps in training and educating auditors. They have also stronger feeling about the overall responsibility and role of the auditors in reporting the fairness of the presentation of the financial statements. There is a consensus between the two groups of the interviewees that the development of a KBS can be used in formulating the auditor's opinion on financial statements. On a theoretical and practical basis a KBS would contribute to minimizing the variations of judgements perceived by them. A prototype of an automated auditor's report has been implemented under the name AREX (Auditor Report EXpert) (Wahdan et al., 2005c). Preliminary validation of AREX by auditors indicates the AREX is a useful tool to formulate the auditor's opinion on financial statements in practice (Wahdan et al., 2006; Wahdan, 2006).

The outline of the paper is as follows. Section 2 deals with the background of the current auditing framework. Section 3 presents the research methods. Section 4 deals with an overview of the auditors' challenges. Section 5 deals with the origins of the auditors' challenges. Section 6 deals with the role of a KBS. Section 7 presents some recommendations to help remedy the auditing challenges. Section 8 provides our main conclusions and points to future work.

2. Background

The discussion of the current auditing framework in Egypt include the Egyptian legal framework (2.1), the auditing profession (2.2), the auditing education (2.3), the structure of the audit firms (2.4), the accounting and auditing standards (2.5), and the non-compliance with these standards (2.6).

2.1 The Egyptian legal framework

The Egyptian government's efforts to restructure (1) financial reporting, (2) disclosure requirements, and (3) accounting and auditing standards are discussed below. As part of the restructuring efforts, company law, banking law, and capital market law were modified (items a, b, and c). In addition, a central auditing organisation was established (d), and a new accounting practice law was drafted (e) (Wahdan et al., 2005a).

- A. *The Company Law 159/1981* requires all listed companies to maintain proper accounting records and prepare annual audited financial statements. This law requires an auditor to report on four aspects of an auditee at the annual meeting. First, whether the company maintains proper accounting records. Second, whether legal requirements have been applied to the accounts. Third, whether all required evidence has been collected. Fourth, whether financial statements fairly present the company's financial condition and results of operations. The Company Law requires that external audits should be carried out in compliance with the Accounting Practice Law 133/1951. In 2000, the listed companies in Egypt were 1,236,000; 29,000 corporations and 1,207,000 partnerships. The four main characteristics of the listed companies are: (1) most companies are closely held (separation between owners and management is uncommon), (2) considerable state ownership in privatised companies, (3) weak board independence / one level board structure, and (4) disclosure is not a common practice (Fawzy, 2004).
- B. *The Banking Law 163/1957* requires all banks to follow the accounting and auditing requirements set by the Central Bank of Egypt, which requires all banks to follow the Egyptian Accounting Standards regarding financial reporting (Berg and Capaul, 2004).
- C. *The Capital Market Law 95/1992* requires all listed companies to follow the Egyptian Accounting Standards. In addition, owing to the absence of an Egyptian Accounting Standard with respect to a specific accounting treatment, the International Accounting Standards (IAS) should be applied. The Capital Market Law requires all listed companies to publish financial statements in two widely circulated newspapers and to establish an audit committee with the objectives of strengthening corporate governance and improving financial reporting.
- D. *The Central Auditing Organisation* controls the government funds and the funds of other public corporations. It governs the auditing of government departments and agencies, public-sector enterprises, and companies in which public investment constitutes at least 25 percent of total ownership. The organisation implemented important steps toward the harmonisation of the public-sector accounting-and-auditing standards with internationally accepted standards.
- E. *The accounting practice law 133/1951* governs professional accountants and auditors, particularly in the private sector. It is considered out-of-date by most practitioners. The current law does not require a qualifying examination for being admitted. The new accounting practice law was drafted to overcome some of the shortfalls of the previous law. This new law requires the creation of a council for accounting and auditing to stress: (i) coordination among professional accountancy organisations, (ii) enrichment of the auditor's independence, (iii) introduction of qualifying examinations for auditors, and (iv) acknowledgment of audit firms and individual auditors as providers of the auditing services (Berg and Capaul, 2004).

2.2 Auditing profession

The Egyptian Society of Accountants and Auditors plays a central role in the accounting profession. It is an association of chartered accountants that develops educational and professional standards. The society is a member of the International Federation of Accountants (IFAC). Here we remark that in Egypt, there is no effective code of ethics for professional accountants and auditors. The audit practitioners are not required to follow any modern code of ethics in line with the IFAC code. In practice, there is little awareness among many practicing auditors of international best practice concerning conflicts of interest and auditor independence (Rahman, et al., 2002).

2.3 Auditing education

With regard to the professional standards for accountants and auditors, the educational quality suffers from a lack of a modern curriculum and from a teacher/students squeeze. According to Rahman et al. (2002), the teacher-student ratio in accounting departments of public universities is about 1 to 1,000, which hinders instructional quality and constrains essential teacher-student communication. With respect to the length of apprenticeship, the application and the employer's letter are not subject to verification.

2.4 The structure of audit firms

All the major international audit firms have a presence in Egypt in addition to well-established local audit firms whose clients included listed companies. Among the most prominent international accountancy and legal firms with local partnership are: KPMG, Ernest and Young, Deloitte Touche Tohmatsu, and Price Waterhouse Coopers.

2.5 Accounting and auditing standards

The Ministerial Decree 503/1997 was the first Egyptian Accounting Standard to be issued. In 2002, Egypt had twenty-two Accounting Standards and six Auditing Standards. The Egyptian Standards on Auditing only deal with the reporting issues and ignore the other areas of the ISA (Navady, 2001). Egyptian Standards on Auditing handle the auditor's opinion on financial statements, which enhances the form of a report without covering the entire audit process. The six Egyptian standards on auditing are as follows (Ministry of Foreign Trade, 2003).

1. ESA 100 'The Framework of Egyptian Standards on Auditing'.
2. ESA 200 'The auditor's opinion on Financial Statements'.
3. ESA 210 'Reporting on Information Accompanying the Financial Statements'.
4. ESA 220 'The auditor's opinion on the Auditing Tasks for Special Purposes'.
5. ESA 230 'Testing Future Financial Information'.
6. ESA 240 'Limited Auditing Tasks for Financial Statements'.

In the absence of an Egyptian standard regarding a specific treatment, the ISA are applied. In addition, the Egyptian Society of Accountants and Auditors had issued auditing standards, which constitute a translated copy of the ISA (Egyptian Society of Accountants and Auditors, 1998).

2.6 Non-compliance with the accounting and auditing standards

This subsection presents three types of non-compliance with the Egyptian accounting and auditing standards.

First, a lack of knowledge and guidelines on the application of Egyptian and international standards restricts ensuring sound accounting and auditing practice. Some audit firms have competent auditors who serve more clients than their capacity. This overstretching can negatively affect the audit quality, which, in turn, can result in non-compliance with accounting and auditing standards (Aly, 2001).

Second, the quality of the audit process is influenced by assigning, or changing, auditors. Shareholders should assign, or change, auditors, and determine the levels of the auditors' compensation; however, the management usually makes these decisions. This practice forces auditors to comply with the wishes of the top management affecting the level of compliance with the accounting and auditing standards (Sobhey, 2001). For example, an auditor may be forced to change his opinion to retain an auditee, although this behaviour is against professional ethics and due care (Louwers, 1998; Keating et al., 2003).

Third, ineffective control mechanisms exist for imposing sanctions on public accountants and auditors who fail to comply with accounting and auditing standards. For example, the Cairo and Alexandria Stock Exchange does not have the necessary authority to ensure that listed companies comply with financial reporting requirements. The Stock Exchange is incapable of applying sanctions to the non-compliance with accounting-standard requirements. Moreover, the Central Bank does not have the enforcement mechanisms to guarantee compliance with the bank statutes (Rahman et al., 2002). Consequently, these practices mislead the users of financial statements.

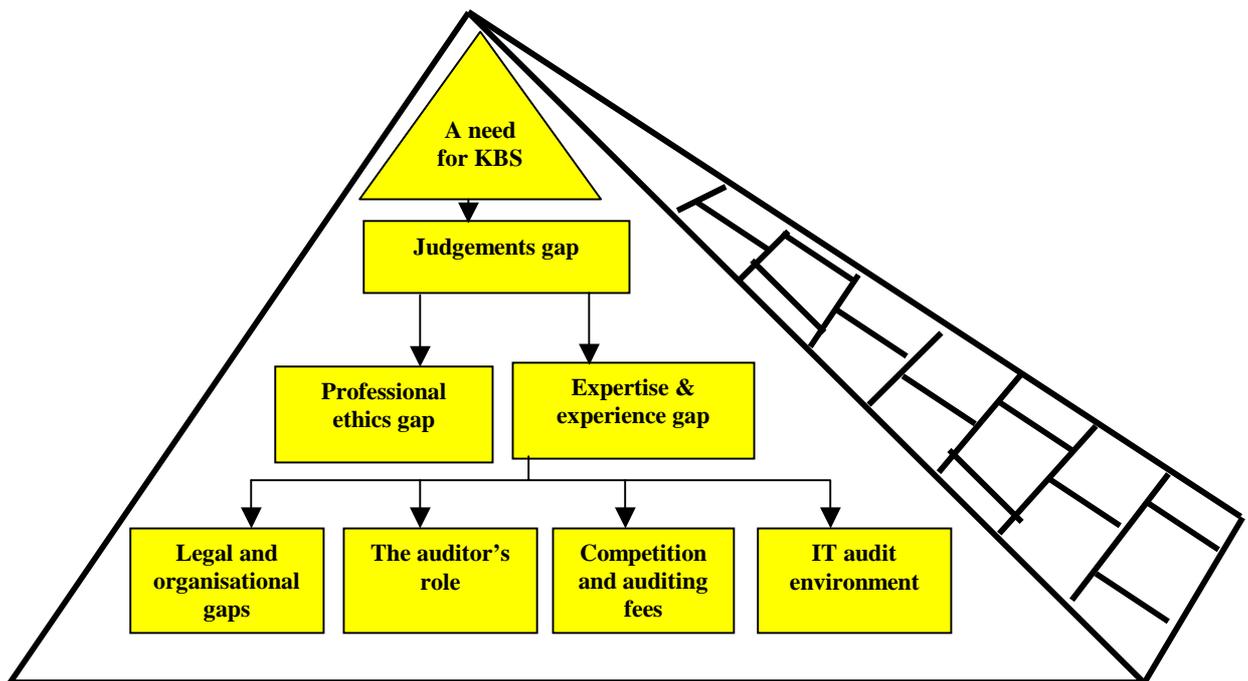
In conclusion, despite great efforts to comply with the accounting and auditing standards in Egypt, there is still a gap between the accounting and auditing standards and the actual practices. It is also noted that the lack of qualification of those who prepare and audit financial statements and inadequate regulatory enforcement mechanisms are considered the main reasons for shortage in the compliance with accounting and auditing standards. If the auditor's report refers to compliance with International Accounting Standards (IAS), the investor can have a greater confidence in comparing these financial statements to other companies that make the same reference (Street & Bryant, 2000), although full compliance should not be assumed (Dahawy, et al., 2002). The level of compliance with familiar aspects of IAS disclosure requirements in Egypt is significantly higher than it is for relatively unfamiliar aspects of IAS disclosure, although both sets of requirements are available in the Arabic language. Where aspects of the IAS disclosure requirements are relatively unfamiliar, the level of compliance is lower when the regulations are not available in official Arabic translations (Abd-Elsalam & Weetman, 2003).

3. Research method

Our research method is based on a survey, using questionnaire and interviews. A questionnaire survey consisted (mainly) of questions requiring a response on a five point Likert-scale (5 = strongly agree, 4 = somewhat agree, 3 = neutral, 2 = somewhat disagree, and 1 = strongly disagree). The questionnaire was presented to two groups of auditors in Egypt; thirteen auditors with terminal academic degrees and nineteen practitioners. The sample was selected from 17 auditing firms in Egypt (including international auditing firms with a local partnership, such as KPMG, Ernst and Young, and Deloitte and Touche) and two auditors from the Central Audit Organization. The auditors were selected depending on at least one of three factors: (i) years of experience (at least ten years), (ii) level of education (at least bachelor degree with high level of computer's skills and English language), and/or (iii) work in the international audit firms. In addition, interviews were carried out with them. With regard to statistical analysis, all results are expressed as a weighted mean. Differences between the two groups' views were tested with a Student's *t*-test with a *p*-value of 0.05. The usual rule applies: if the *p*-value is less than the level of significance α , the null hypothesis can be rejected (Anderson, et al., 2002).

4. Overview on the auditors' challenges

Figure 1 summarises the different auditing challenges and the need for a KBS to formulate the auditor's opinion in audit firms in Egypt. As shown in Figure 1 (bottom row), four factors contribute to the shortage of expertise and experience in Egypt: (1) legal and organisational gaps; (2) the auditor's role; (3) competition and auditing fees; and (4) the IT audit environment. They are discussed in section 5. Moreover, the shortage of experience and expertise (4.1), the lack of professional ethics (4.2), and the weak auditors' judgements (4.3) support the need for a KBS to help auditors in formulating their opinions on financial statements.



KBS expectations

1. KBS decreases the expectation gap and the experience gap. It decreases the judgemental bias.
2. KBS helps in educating and training the novices.
3. KBS provides the basis to formulate the auditor's opinion.

Figure.1 Auditing challenges in Egypt.

4.1 Shortage of experience and expertise

According to the Accounting Practice Law in Egypt, university graduates in the field of accounting are automatically registered as certified accountants. The law does not require that auditors who once received their licences undertake regular training or continuing professional education. Moreover, the Egyptian Society of Accountants and Auditors, which has established qualification examination requirements, does not require continuation of education for its own members. As a result, most auditors suffer from a lack of modern knowledge, experience, and expertise. Table 1 presents the results of the survey on the lack of experience and expertise and the auditor's retention in Egyptian audit firms.

Table 1 presents the responses of the two groups of auditors concerning the lack of experience and expertise, and the possible remedies. Auditors somewhat agree (mean score – total) as to the lack of experienced auditors, the low standard of accounting education, and the lack of training opportunities. However, there is a significant difference between both groups, the auditors with terminal academic degrees are more strongly in agreement with these issues than the practitioners. Based upon the interviews, the scarcity of experienced auditors follows from five factors: (1) the long period required to develop experience based upon modern knowledge; (2) the lack of feedback information needed to develop experience and improve the judgements accuracy; (3) the decreasing numbers of auditees of each audit firm; (4) the short training time available to novices; and (5) the lack of education and training requirements.

Table 1: The lack of experience and expertise and auditor's retention.

Question	Mean Score			P-value
	Auditors academic	Practitioners	Total	
To what extent do you agree that the lack of experience and expertise in Egypt follows from:				
1. lack of experienced auditors?	4.31	3.53	3.84**	0.049*
2. low level of education?	4.38	3.58	3.91	0.032*
3. lack of training?	4.23	3.58	3.84	0.085*
To what extent do you agree that the following strategies are applied by audit firms in Egypt to achieve their auditors' retention:				
4. high salaries?	4.23	4.35	4.30	0.645
5. incentives and rewards?	4.31	4.29	4.30	0.959
6. non-financial rewards?	3.69	4.00	3.87	0.460
7. improving the education and training?	4.46	4.65	4.43	0.888
8. promoting auditor as a partner?	4.46	4.47	4.47	0.974
9. promotion?	4.31	4.65	4.37	0.288

Values are presented as a weighted mean of each sample and of the total

**Weighted mean of question 1 (total) = $[(10*5) + (13*4) + (4*3) + (4*2) + (1*1)] / 32 = 3.84$ for example.

* There is a significant difference between the perceptions of the two groups of auditors because $p < 0.05$, question 3: $T=1.78 > 1.701$

Based on the interviews, there are seven reasons for the lack of experience and expertise.

1. There is no specialised professional institute to grant the accounting and auditing degrees and to provide the training required to perform an audit.
2. There is no system for continuous education.
3. In most companies, the accounting systems are ineffective.
4. There are no legal requirements for mandatory audits for sole proprietorships and partnership enterprises, while corporations represent only about 5% of the registered firms, as mentioned in 2.1.
5. The organisation of the accounting profession is legally and procedurally ineffective.
6. There is instability of the auditing profession, because of the low competitive advantage, auditors travel abroad or look for other jobs.
7. There is no obligation to apply Egyptian or International standards on auditing.

Responses in Table 1 indicate that a clear agreement between both groups exists with respect to the use of (4) high salaries, (5) incentives and reward systems, (6) non-financial rewards, (7) improving the quality of education and training, and (8, 9) promoting auditors to a higher level including partnership status as strategic remedies, which are actually applied to achieve the auditor's retention.

The interviewees indicate that work in teamwork, a fair distribution of work among trainees, and good relationships and treatment are considered the central policies to retain the auditors within audit firms in Egypt.

4.2 Professional ethics

As a result of the limited legal requirements for mandatory audits, smaller firms have not been engaging auditors. Moreover, many companies switch auditors from time to time on a purely subjective basis. This behaviour leads to instability of the auditors' position with respect to audit engagements. Furthermore, the auditor's independence is strongly affected by the preferences of the family-owned companies (Hudaib and Haniffa, 2005).

The main reasons for the preferences are that the majority of stockholders, the Board of Directors, and the companies' management are usually the same, as discussed in 2.1. The instability is further aggravated by a lack of separation between auditing service and consulting services provided by the auditor to the auditee. Finally, in most companies, accounting for the purpose of tax minimisation takes precedence over the sound application of accounting principles. As a result, the auditor's independence is affected and the auditor's opinion may be changed due to pressures from management. Some Boards of Directors invite the auditors to attend the regular board meetings and by the end of each meeting, the auditors receive compensation for their attendance as members of the Board (from personal communications with auditors). All these factors negatively affect the fairness of the auditor's opinion. Moreover, the lack of separation between the auditing service and other services provided by auditors affect the auditor's independence. Table 2 presents the results of the survey regarding the lack of professional ethics.

Table 2: Professional ethics.

Question	Mean Score			P-value
	Auditors academic	Practitioners	Total	
To what extent do you agree that the lack of a code of Professional Ethics in Egypt follows from:				
1. misunderstanding of relationship between an auditor and auditee?	4.46	3.63	3.97	0.032*
2. auditor's switch because of disagreement with managers and/or shareholders?	4.31	3.53	3.84	0.037*
3. prevalence of closely held companies?	4.31	4.11	4.19	0.275
4. issuance of a clean opinion to retain the auditee?	4.15	3.35	3.70	0.084*

Values are presented as a weighted mean of each sample and of the total

* There is a significant difference between the perceptions of the two groups of auditors because $p < 0.05$, question 4: $T = 1.79 > 1.701$

The questions refer to whether the lack of professional ethics results from the presence of a misunderstanding of relationship between the auditor and the auditee, management practice of changing auditor in case of disagreement, the prevalence of closely held corporations, and the practice of issuing an unqualified opinion by auditors in order to retain the auditee. The results indicate that auditors agree as to the presence of all of these gaps and their negative impact on the profession and its ethics. However, the results also indicate that there is a significant difference between the two groups' perceptions; the auditors with an academics degree perceive the presence of these challenges more strongly than the practitioners. Indeed, the auditors with an academics degree have been between the agreement and the strong agreement (from 4.15 to 4.46), while the practitioners' range is between neutrality and agreement (from 3.37 to 3.63). The prevalence of closely held companies was focused upon as a cause of these gaps.

4.3 The auditors' judgements

Auditors depend on the personal-judgement approach in making decisions throughout the audit. Thus, the outcome may differ from one auditor to another in estimating the audit risk, the extent of disclosure, and the type of the opinion. These differences depend on the auditor's experience and expertise, and his relationship with the client, which may lead to personal bias and/or misleading judgements. Table 3 presents the results of the survey on the variation of judgements.

The responses indicate that the groups of auditors agree that the variations of the auditors' judgements in Egypt follow from the differences in experience and expertise. They also agree somewhat with the fact that introducing and maintaining high-quality auditing would be a good competitive policy. Again, both groups appear to be neutral (the practitioners) or close to neutrality (the auditors with terminal academic degrees) as to the need to issue a biased opinion in order to satisfy the auditee. It is expected that most auditors are unlikely to admit such a fact. In general, the results support the fact that a gap exists as a result from a lack of experience and expertise. In addition, the quality improvement is not viewed as a likely alternative in supporting the competitive position.

Table 3: The variation of the auditors' judgements.

Question	Mean Score			P-value
	Auditors academic	Practitioners	Total	
To what extent do you agree that the variations of the auditors' judgements in Egypt follow from the differences in experience and expertise?	4.15	3.53	3.78	0.200
To what extent do you agree that the following competition policies are prevailing among the audit firms in Egypt:				
1. the policies maintaining a high-quality auditing?	3.54	3.29	3.33	0.499
2. the policies resulting in issuing a biased opinion to satisfy the auditees?	3.46	3.00	3.20	0.246

Values are presented as a weighted mean of each sample and of the total
 There is no significant difference between the perceptions of the two groups of auditors because $p > 0.05$.

5. The origin of the Challenges

When investigating the challenges discussed in previous section, viz. the lack of experience and expertise, the professional ethics, and the variations of judgements, we face the issues of the legal and organizational gaps (5.1), the role of the auditors (5.2), the presence of competition and auditing fees (5.3), and the complexity of the audit environment, in particular IT auditing (5.4). These issues may be viewed as the main origins of the challenges mentioned above. The purpose of this section is to present the responses of the two groups of auditors to these issues.

5.1 Legal and organisational gaps

As noted above, there exists a gap between auditing standards and actual auditing practice. At present, we see a lack of understanding, resulting in non-compliance or partial-compliance with auditing standards. This is a challenge faced by many auditors, who are not part of the international accounting firm networks. The gap results (1) from the fact that the Egyptian standards on auditing are insufficient for performing all auditing tasks and (2) from the complexity of the audit environment.

Table 4 presents the results of the survey of the two groups of auditors with respect to the legal and organisational gaps existing in Egypt. It was found that auditors somewhat agree with the gaps associated with the limited legal requirements of mandatory audits, the automatic registration of auditors, the lack of auditing standards, and the shortage of laws and regulations related to acquiring the auditees. Furthermore, the auditors have a certain level of neutrality regarding the complexity of the audit environment. Moreover, the results indicate there is no significant difference between the two groups' perceptions with respect to these challenges. During the interviews, the auditors stressed the facts that: (1) the accounting law does not state their rights and obligations, (2) there is no strong independent professional organisation to guarantee the rights of the auditees, (3) there are no standardised measures for audit quality, and (4) there is no separation between auditing service and other services provided to the auditees by them.

Table 4: Legal and organisational auditing gaps.

Question	Mean Score			P-value
	Auditors academic	Practitioners	Total	
To what extent do you agree that the following five legal and organisational gaps are existing in Egypt:				
1. lack of auditing standards?	3.69	3.42	3.53	0.583
2. no rules for acquiring clients?	3.46	3.89	3.72	0.317
3. limited legal requirements of mandatory audits?	4.08	3.58	3.78	0.251
4. automatic registration of auditors?	4.15	3.63	3.84	0.208
5. complex audit environment?	3.15	3.67	3.28	0.367

Values are presented as a weighted mean of each sample and of the total
There is no significant difference between the perceptions of the two groups of auditors because $p > 0.05$.

5.2 *The auditor's role*

An audit expectation gap exists when there is a difference in belief between the auditors and the auditees about the duties and the responsibilities assumed by the auditors and the messages conveyed by the auditor's opinion (Monroe and Woodliff, 1994; McEnroe and Martens, 2001). In this subsection, the results of the interviews, concerning the duties and responsibilities of the auditors as perceived by the auditors, are presented and compared to the results of earlier studies on users' satisfaction.

In earlier studies on users' satisfaction with the auditors' performance, users stated their discontent so as to ignore sufficient disclosure, and to report on the management' compliance with laws and regulations and on the disposition of assets. Furthermore, they noted that the unavailability of the audit information during the annual stockholders meetings and the absence of disclosures on the going concern of the audited companies were real items. Apparently, based on the results of earlier studies, there is a clear gap between the auditor's actual performance as seen by the users and the users' perception of the auditors' role, duties, and responsibilities (Aly, 2001; Manson and Zaman, 2001).

Manson and Zaman (2001) carried out a survey, which revealed significant differences in respondents' views (users, directors, and auditors) concerning the extension of the auditor's report. Users are particularly keen for an explicit statement in the auditor's report assessing the going-concern status of the company, and the auditor's findings in relation to fraud or illegal acts. Directors are somewhat in favour of this. However, auditors are slightly against the inclusion of such statements. In contrast, users believed that disclosure about the client's internal controls, the extent to which the auditors relied on the internal controls and materiality judgements used would be useful in enhancing the value of the audit. The auditors' unwillingness to provide additional information about the results of their audits and their responses oppose the users' preference for additional information. On the issue of corporate-governance, all three groups agree that auditors should always report on corporate governance issues for which they have a responsibility and believe that the directors' statement with respect to corporate governance would be useful (Manson and Zaman, 2001). Table 5 illustrates the results of the survey regarding the auditor's role.

According to Table 5, a clear agreement (mean score-total) exists on the significance of the role played by the auditors in guiding investment decisions (area 1), evaluating companies (area 2), and promoting economic development by selecting the optimal allocation of the resources (area 4). Surprisingly, however, there is significant difference between the two groups of auditors regarding the auditing role in the companies' evaluation (area 2), as the auditors with terminal academic degrees have a higher agreement and support than the practitioners. The results also indicate that the two groups of auditors are in a lower agreement with respect to their role in predicting bankruptcy (area 4). In fact, many interviewees expressed their willingness to do so only in the case of special contracts (Wahdan et al., 2005b). It is apparent from the interviews that the auditors believe that the auditing profession has three roles: (1) predicting the expected return, analysing the financial statements to select the best ratios to help both investors in decision making and companies in obtaining bank loans by using personal relationships, (2) expressing opinions on the validity of the financial statements, and (3) providing important information to financial analysts, financial guidance offices, researchers, workers, syndicates, and the society in general.

Table 5: The auditor's role.

Question	Mean Score			P-value
	Auditors academic	Practitioners	Total	
To what extent do you agree that the auditing profession has a role in the following four areas in Egypt:				
1. introduction of guidelines for investors?	4.31	4.79	4.59	0.111
2. evaluation of the companies' performance?	4.62	3.89	4.19	0.050*
3. prediction of the companies' bankruptcy?	3.15	3.42	3.31	0.578
4. selection of the optimal allocation of the resources?	4.62	4.47	4.53	0.249

Values are presented as a weighted mean of each sample and of the total

* There is a significant difference between the perceptions of the two groups of auditors because $p < 0.05$, question 2: $T = 2.04 > 1.701$.

5.3 Competition and auditing fees

Recently, it has been noted that competition among audit firms in Egypt to attract and retain auditees has been increasing (Aly, 2001). Owing to competitive challenges, many managers try to minimise auditing fees for their firms. In response, several audit firms have applied cost-free auditing for the first year, and charged their clients an audit fee from the second year. As a result, audit firms have been suffering from low auditing fees, which would ultimately decrease the quality of their audits, resulting in an unfair opinion on the financial statements. This has been aggravated by the fact that high quality university graduates, in particular those with English education, refuse to join the public accounting profession. They do so since the rewards and fees are not competitive. Table 6 presents the results of the survey regarding the competitive policies and the auditing fee of the auditing profession.

Table 6 shows the responses of two groups to the questions on the presence of keen competition (1, 2), the competitive policies of audit firms (3, 4, 5). The results show that the two groups of auditors agree that severe competition exists to attract and retain auditees. The competitive policies include: using personal relationships, introducing additional services to the clients, and decreasing the auditing fees. There are no significant differences between both groups on these issues. In fact, both the responses to the questionnaire and the interviews, we have had stressed that good personal relationships and helping clients to obtain loans from banks are considered key elements in attracting and retaining the auditees. However, auditors did acknowledge the presence of "fee competition" with the possibility of resulting in low auditing fees. Needless to say, all these factors, especially when combined, may ultimately influence the quality of the audit and the independence of the auditor (Wahdan et al., 2005b).

Table 6: The competition and auditing fees.

Question	Mean Score			P-value
	Auditors academic	Practitioners	Total	
To what extent do you agree that the following five features exist in Egypt:				
1. keen competition to attract the auditees?	4.23	4.05	4.13	0.594
2. keen competition to retain the auditees?	4.30	4.11	4.19	0.539
3. decreasing auditing fee as a competitive policy?	4.00	3.71	3.83	0.536
4. introducing additional services as a competitive policy?	4.23	4.06	4.13	0.557
5. using personal relationships as a competitive policy?	4.62	4.18	4.37	0.240

Values are presented as a weighted mean of each sample and of the total

There is no significant difference between the perceptions of the two groups of auditors because $p > 0.05$.

5.4 The IT audit environment

In this subsection, the questions are designed to elicit auditors' perceptions in relation to four aspects: (1) the performance of IT audit; (2) the degree of reliance on IT audit output as audit evidence; (3) the auditing programs used in audit firms; and (4) the auditing areas in which auditors use these programs in Egypt. There is no doubt that the use of IT for processing data has complicated the audit environment in Egypt. Audit firms have responded to this complexity in different ways. Below we provide two destined cases: (1) large firms have acquired IT audit programs and hired staff consisting of system designers and specialists; in addition, a number of large audit firms have joined service-oriented multinational companies to provide high-quality services in accordance with international standards on auditing; (2) smaller firms have applied parallel auditing by simultaneously using both the IT audit program and manual auditing.

Within large audit firms in Egypt, (1) auditing around the computer, (2) auditing through the computer, and (3) auditing using test data (the most common supporter of IT audit) are used. Some auditors believe that they can use KBSs and simulation in IT audit. Other auditors choose a random sample of IT output of some transactions and perform a walk-through to ensure the accuracy of these transactions. The IT audit programs are used in posting the transactions, preparing the financial statements, and extracting the account balances. Large audit firms rely on IT audit programs in decision making and depend on the computer output as audit evidence. International audit firms use IT programs in auditing tasks.

The responses of Table 7 indicate that the two groups of auditors agree as to the lack of experience regarding the IT audit. However, the responses indicate that the auditors with terminal academic degrees are more strongly in agreement with this issue, and as a result, there is a slight but significant difference between in perceptions of the two groups. The lack of experienced IT auditors results in higher auditing costs, as experienced IT auditors would command higher salaries and benefits due to their skills.

Table 7: The lack of IT auditors.

Question	Mean Score			P-value
	Auditors academic	Practitioners	Total	
To what extent do you agree that the lack of IT auditors in Egypt follows from a lack of education and training regarding IT audit?	4.62	3.95	4.22	0.073*

Values are presented as a weighted mean of each sample and of the total

* There is a significant difference between the perceptions of the two groups of auditors because $T = 1.86 > 1.701$.

6. The role of a KBS

Several auditors in Egypt have stated that a KBS in auditing would be helpful in training auditors, standardising the audit procedures and reports, and filling in part of the noted shortage in experience and expertise and in the application of auditing standards. The questions in Table 8 were designed to elicit the auditors' expectations of the benefits of a proposed KBS. Responses to the questions indicate that there is a strong agreement that a KBS will help educate and train novices and provide a theoretical and practical basis for formulating the auditor's opinion on the financial statements.

Moreover, the results indicate that there is a clear agreement that a KBS will help decrease the audit expectation gap, the auditor's bias, and the reliance on personal judgement. There is also a general agreement that a KBS can help overcome the shortage of experience and expertise. However, despite the general agreement as to filling in the shortage of experience and expertise, there is significant difference between the two groups: the practitioners are less in agreement with this issue. Some interviewees believe that using a KBS to overcome the shortage of experience and expertise should be accompanied by a new and modern organisation of the profession and by using standard measures of audit quality. They agree that a KBS would provide practical and theoretical bases to formulate the auditor's opinion on financial statements. A KBS can decrease the auditor bias after setting up procedures to appoint, or change, the auditors and to enrich the auditor's independence.

Table 8: The benefits of a KBS.

Question	Mean Score			P-value
	Auditors academic	Practitioners	Total	
To what extent do you agree that a suggested KBS would:				
1. decrease the audit expectation gap?	4.46	4.21	4.31	0.353
2. decrease the auditor's bias?	4.15	4.11	4.13	0.893
3. help in educating and training the novices?	4.62	4.47	4.53	0.566
4. help in filling in the shortage of experience and expertise?	4.54	4.28	4.25	0.093*
5. provide theoretical and practical bases to formulate the auditor's opinion on financial statements?	4.62	4.42	4.50	0.394

Values are presented as a weighted mean of each sample and of the total

* There is a significant difference between the perceptions of the two groups of auditors because in question 4: $T = 1.73 > 1.701$

Given the presence of a general agreement for the need and benefits of a KBS, questions were asked as to what audit assessments should be covered by a proposed KBS (Table 9). The responses indicate that a KBS for the auditor's opinion would contain the audit assessments regarding the results of control examinations, the auditor's compliance with applicable auditing standards, the auditee's compliance with accounting principles, the fairness of representation of financial statements, going concern uncertainty, and the proper auditor's opinion.

Table 9: The models of a KBS.

Question	Mean Score			P-value
	Auditors academic	Practitioners	Total	
To what extent do you agree that a KBS to formulate the auditor's opinion on financial statements should include the following audit assessments:				
1. an assessment of the results of control examinations?	4.77	4.79	4.94	0.911
2. an assessment of the auditor's compliance with applicable auditing standards?	4.77	4.89	4.84	0.353
3. an assessment of the auditee's compliance with accounting principles?	5.00	5.00	5.00	0.00
4. an assessment of the fairness of representation of financial statements?	4.46	4.89	4.72	0.036*
5. an assessment of the going-concern uncertainty?	4.23	4.16	4.19	0.532
6. an assessment of the proper auditor's opinion?	4.38	4.47	4.44	0.736

Values are presented as a weighted mean of each sample and of the total

* There is a significant difference between the perceptions of the two groups of auditors because $p < 0.05$.

In addition, the responses indicate that the audit assessments concerning whether the financial statements are prepared in accordance with accounting principles is more important. There is also a slight but significant difference between the two groups on the consensus that an assessment of the fairness of representation should be performed before formulating the auditor's opinion on the financial statements. Interviewed auditors suggested that an assessment of planned detection risk should be added to help deciding on the amount of substantive tests of transactions and balances of accounts. It is noticed that assessing detection risk has received little attention from Egyptian auditors in practice when planning the audit. In addition, the auditors suggested that a materiality assessment threshold should be added to a proposed KBS to help selecting the amount of audit evidence.

7. Recommendations

Based on the survey, we may conclude that many improvements are needed to fill in the gaps between the Egyptian and international standards on auditing and between the auditing standards and practices. The recommendations are related to three issues: (1) the legal auditing framework; (2) the auditing profession, education, and standards; and (3) professional ethics and judgements. Each of these recommendations is discussed below.

First: the legal auditing framework

We propose the following two improvements.

1. A modern legislative framework should be issued, including an appropriate law for the auditing profession, remedying the weaknesses in the professional education and training arrangements, introducing qualifying examinations for the auditors' licence, supporting compliance with the IFAC code of ethics, and developing enforcement mechanisms to ensure compliance with accounting and auditing standards.
2. The Egyptian government should amend the accounting profession law to protect the public interest.

Second: the profession, education, and standards of accounting and auditing

We propose the following four improvements.

1. The authority of the Central Auditing Organisation needs to be strengthened to ensure compliance with the Egyptian accounting and auditing standards.
2. The registration requirements in the auditing profession should be upgraded, so that the trainee-auditors receive practical training only from authorised audit firms, and from specialised professional institutes.
3. The professional accounting and auditing standards need to be reviewed, and the quality of the public university education including accounting curricula need to be improved.
4. The Egyptian government should emphasise continuous education. The international practice stipulates that every practicing auditor should complete at least 30 hours of continuing professional education per year, so that he is aware of the recent developments in auditing and accounting (Arens and Loebbecke, 2000).

Third: the professional ethics and judgements

We propose the following three improvements.

1. The Egyptian government should establish, or determine, an independent accounting and auditing council, which should be responsible for overseeing the public interest activities of auditors, and the effectiveness of the institutional framework supporting high-quality financial reporting.
2. The quality and credibility of the auditor's performance will require reviewing the auditor's independent standards (auditors should be changed every five years) (Wahdan et al., 2005a).
3. The auditors must refuse to sign clean audit opinions, unless the financial statements are free from material misstatements (IFAC, 2006) and in full compliance with the Egyptian accounting standards. To do so, three actions should be applied: (1) constituting penalties applied to violators; (2) enhancement of the understanding of the ISA; and (3) giving more attention to the auditor's independence.

8. Conclusion and future research

This paper has shown that the Egyptian government has attempted to modify the law to achieve compliance with internationally accepted accounting and auditing standards. The modifications include drafting a new accounting practice law, and modifying the company law, the capital market law, and the banking law.

The two groups of auditors believe that the auditing profession has a central role in investment guidance, companies' evaluation, and economic development. Furthermore, the respondents feel that the auditor's work facilitates the process of economic development through the presentation of reliable information concerning the financial position of the companies. The two groups of auditors agree with the presence of variations of auditors' judgements, resulting from the differences in expertise and experience of performing the audit. The presence of high pressure on the auditors in terms of fees paid by the auditees, lack of protective regulations, lack of the professional standards, and weaknesses of the ethical standards in the profession are viewed as important factors of the origins of these challenges.

The results indicate that there is a scarcity of experienced auditors and a lack of competitive advantage of the auditing profession in Egypt. Auditors are not required to follow a code of ethics in line with the IFAC code. This deficiency is accompanied by a prevalence of the closely held companies and the absence of rules in appointing (or changing) auditors. The auditor's concern (and main priority) has been tax accounting rather than sound financial reporting. Moreover, there is a scarcity of experienced auditors in IT auditing in Egypt because of the lack of knowledge and skills required for such tasks. However, despite this general agreement, significant differences are observed between the two groups as to the shortage of experience and expertise, the lack of professional ethics, and the importance of the auditor's role in relation to the expected role of a proposed KBS.

A KBS will help educate and train novices and provide theoretical and practical bases for formulating the auditor's opinion. It will help decrease the expectation gap, the auditor's bias, and the reliance on personal judgement. The results indicate that there is a need for a KBS in formulating the auditor's opinion on financial statements in Egyptian audit firms. This implies that a KBS to formulate the auditor's opinion on financial statements should contain the following eight audit assessments: controls examination, preliminary materiality judgements, planned detection risk, the auditor's compliance with applicable auditing standards, the auditee's compliance with accounting principles, a fairness of representation, a going concern, and the auditor's opinion.

Based on the respondents' answers, it may be concluded that the construction of AREX, according to the international standards on auditing and practical professional standards, will help overcome the lack of Egyptian auditors expertise and experience, by making expert's knowledge and experience available to the novice. AREX will free experienced auditors from simple and routine tasks as advice and other activities, and enable them to concentrate on higher levels of managing the audit process, on creative research, and on the development of the auditing profession in Egypt. Therefore, we may conclude that the development and use of a KBS in the auditing domain in Egypt will help providing an adequate answer to some of the challenges.

In future work, a KBS for performing the task of formulating the auditor's opinion will be constructed, implemented, and validated. For Egypt, it means that a new era starts within the auditors' world and, more importantly, that the Egypt then will act at a par with countries that are leading in the world of economy.

References

- Abd-Elsalam, O.H., & Weetman, P. (2003). Introducing International Accounting Standards to an Emerging Capital Market: Relative Familiarity and Language effect in Egypt. *Journal of International Accounting, Auditing & Taxation*, Vol. 12, pp. 63-84.
- Aly, A.A. (2001). The Expectation Gap Regarding the Auditor's Role in the Society, *Journal of Accounting, Management, and Insurance*, Cairo University, Vol. 57, pp. 49-85.
- Anderson, D.R., Sweeney, D.J., and Williams, T.A. (2002). *Statistics for Business and Economics*, South western, Thomson Learning, United States.
- Arens, A.A. and Loebbecke, J.K. (2000). *Auditing: An Integrated Approach, Practice*, Hall International, Inc., New Jersey.
- Berg, A. and Capaul, M. (2004). Report on the Observation of Standards and Codes, Corporate Governance Country Assessment, Ministry of Foreign Trade, Egypt, (February).
- Dahawy, K., Merino, B.D. & Conover, T.L. (2002). The Conflict between IAS Disclosure Requirements, and The Secretive Culture in Egypt. *Advances in international Accounting*, Vol. 15, pp. 203-228.
- Egyptian Society of Accountants and Auditors (1998). *Auditing Standards*, Egyptian Society of Accountants and Auditors, Cairo.
- Fawzy, S. (2004). How Does Corporate Governance in Egypt Compare with Selected MENA and Emerging Markets? The Egyptian Center for Economic Studies, Cairo University, (June).
- Hudaib, M. and Haniffa, R., T.E. (2005). Qualified Opinion and Auditor Switching: An Investigation of the Relationships Between Size of Auditee, Audit Fees and Type of Audit Firm, *European Accounting Association, 28th Annual Congress*, Goteborg, (May), pp. 18-20.
- IFAC (2006). *Handbook of International Auditing, Assurance, and Ethics Pronouncements*, International Federation of Accountants.

- Keating, E.K., Gordon, T.P., Fischer, M., and Greenlee, J. (2003). The Relation Between Auditor Selection and Adverse Audit Findings: Examination of Nonprofits Subject to the Single Audit Act, ARNOVA Conference, (January).
- Libby, R. (1995). The role of Knowledge and Memory in Audit Judgment, in the book of Ashton, R.H. and Ashton, A.H. (1995). Judgment and Decision-Making research in Accounting and Auditing, Cambridge University Press, UK.
- Louwers, T. (1998). The Relation between Going-Concern Opinions and the Auditor's Loss Function, Journal of Accounting Research, Vol. 36, pp. 143-156.
- Manson, S. & Zaman, M. (2001). Auditor Communication in an Evolving Environment: Going Beyond SAS 600 Auditors' Reports on Financial statements. British Accounting review, Vol. 33, pp. 113-136.
- McEnroe, J.E. & Martens, S.C. (2001). Auditors' and investors' perceptions of the "Expectation Gap", Accounting Horizons, Vol. 15, pp. 345-358.
- Ministry of Foreign Trade (2003). The Egyptian Standards on Auditing. The Ministry of Foreign Trade, Cairo.
- Monroe, G.S. & Woodliff, D.R. (1994). An Empirical investigation of the Audit Expectation GAP: Australian Evidence. Accounting and Finance, pp. 47-74.
- Navady, I. A. (2001). Auditing reports in accordance with the Egyptian standards on auditing, Gomhoria for publication, Cairo.
- O'Leary, D.E. (2003). Auditor Environmental Assessments, International Journal of Accounting Information Systems, Vol. 4, pp. 275-294.
- Rahman, M. Z., Msadek, S. & Waly, H. (2002). Report on the Observation of Standards and Codes. The World Bank.
- Sobhey, M.H. (2001). Supporting the Auditor's Independence in Egypt under Current Circumstances in Auditing Environment, Commercial Research and Studies, Faculty of commerce, Banha University, Vol. 2, pp. 369- 410.
- Street, D.L. & Bryant, S.M. (2000). Disclosure Level and Compliance with IASs: A Comparison of Companies With and Without U.S. Listings and Filings. The International Journal of Accounting, Vol. 35, pp. 305-329.
- Wahdan, M.A., Spronck, P., Ali, H. F., Vaassen, E., and Herik, H.J. van den (2005a). Auditing in Egypt: A Study of the Legal Framework and Professional Standards, the proceeding of the MsM's Partners Conference 2005, Maastricht School of Management, The Netherlands, pp. 63-74.
- Wahdan, M.A., Spronck, P., Ali, H. F., Vaassen, E., and Herik, H.J. van den (2005b). Auditing in Egypt: A Study of Challenges, Problems, and Possibility of an Automatic Formulation of the Auditor's Report, the proceeding of the congress 14th IMDA, 2005, Granada, Spain, pp. 91-98.
- Wahdan, M.A., Spronck, P., Ali, H. F., Vaassen, E., and Herik, H.J. van den (2005c). When Will A Computer Write The Auditor's Report, The Journal of Systemic Practice and Action Research, Vol. 18, No. 6, (December), pp. 569-580.
- Wahdan, M.A., Spronck, P., Ali, H.F., Vaassen, E., and Herik, H.J. van den (2006). The design and validation of a Knowledge-Based System for The Auditor's Reports, IRMA2006 Conference, Washington D.C., USA.
- Wahdan, M.A. (2006). Automatic Formulation of the Auditor's opinion. Ph.D. Thesis, Maastricht University, Maastricht, The Netherlands.