



Antecedents and consequences of audit expectation gap

Evidence from the banking sector in Malaysia

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Abstract

Purpose – This study aims to investigate the effects of individual knowledge/experience on the audit expectation gap of loan officers in Malaysia and the subsequent effect of the audit expectation gap on their loan decision quality. In addition, the mediation role of the audit expectation gap is examined.

Design/methodology/approach – Copies of a structured questionnaire were randomly distributed to three hundred and twenty loan officers of the top four commercial banks in Malaysia. A total of 212 completed questionnaires were analysed using structural equation modelling.

Findings – The findings indicate that the knowledge/experience factors could significantly mitigate the audit expectation gap. More importantly, the audit expectation gap is found to adversely affect the loan decision quality. The mediating role of the audit expectation gap is also supported.

Research limitations/implications – The findings of this study may not be generalizable to other economic, cultural and political settings.

Practical implications – Banks may narrow their loan officers' audit expectation gap and hence, their non-performing loans through selective recruitment or appropriate knowledge/skill enhancement in-house training programmes.

Originality/value – This study provides the needed empirical evidence of the adverse effect of audit expectation gap on the loan decision quality of bank officers in Malaysia. Unlike the 2009 findings of Noghondari and Foong, which was based on an Islamic banking context in Iran, this study, which was based on the conventional banking context, found that accounting-related and job-related work experience of bank officers had significantly mitigated the audit expectation gap. The findings have important implications on the recruitment and training of loan officers by banks.

Keywords Audit expectation gap, Decision quality, Loan officer, Accounting knowledge, Work experience, Non-performing loan, banking, Malaysia

Paper type Research paper

1. Introduction

The audit expectation gap (AEG) has been an issue for research and discussions among accounting researchers in the last two decades and the increasing incidence of financial scandals and corporate failures has revived research interest in this area (Almer and Brody, 2002; Dennis, 2010; Foster *et al.*, 2010; Gold *et al.*, 2012; Hassink *et al.*, 2009; Pourheydari and Abousaiedi, 2011). The accounting and auditing literature has consistently reported the existence of the AEG in both developed and developing countries (Alleyne and Howard, 2005; Barrett, 2010; Best *et al.*, 2001; Dixon *et al.*, 2006; Fadzly and Ahmad, 2004; Haniffa and Hudaib, 2007; Hassink *et al.*, 2009; Lin, 2004; Lin and Chen, 2004; Onumah *et al.*, 2009; PCAOB, 2011; Pourheydari and Abousaiedi, 2011; Salehi and Azary, 2009; Schneider and Church, 2008; Sidani, 2007). Despite efforts made to narrow the AEG, such as through enhancing the auditing standards and revising the format of the auditor's report, the AEG continues to exist, and in



particular, the gap with regard to the auditor's responsibilities for fraud prevention and detection (Best *et al.*, 2001; Dixon *et al.*, 2006; Fadzly and Ahmad, 2004).

There are several definitions for the AEG. The Cohen Commission (1978) defines the AEG as the difference between what the public expects and needs and what the auditors can and should reasonably expect to achieve. The American Institute of Certified Public Accountants (AICPA, 1993) defines the AEG more specifically as the difference between what the public and financial statement users believe that auditors are responsible for and what the auditors themselves believe their responsibilities are. Porter (1993), on the other hand, views the AEG as consisting of two components: the reasonableness gap and the performance gap. The reasonableness gap refers to "the gap between what the public expects auditors to achieve and what the auditors can reasonably be expected to accomplish". The performance gap refers to "the gap between what the public can reasonably expect auditors to accomplish and what they are perceived to have achieved". Part of the performance gap is due to deficient standards and it arises from the difference between what the public can reasonably expect auditors to achieve and what the law and professional standards have defined. The other component of the performance gap is due to auditors' deficient performance and it arises from the difference between what the auditors are expected to achieve under the existing law and professional standards and what their perceived achievement is.

Humphrey (1997), as cited in Dennis (2010), defines the AEG as "a representation of the feeling that auditors are performing in a manner at variance with the beliefs and desires of those for whose benefit the audit is carried out". Turner *et al.* (2010), based on the service quality model by Parasuraman *et al.* (1985), divide the AEG into four gaps: the research gap, standards gap, delivery gap and communication gap. The Australian Education Research's ABREMA model (2004), as cited in Turner *et al.* (2010), aptly sums up the AEG as the gap arising from unreasonable user's expectations, deficient audit standards and auditor's deficient performance.

Opinions expressed in the auditors' reports have been found to substantially influence decision-making of users of financial statements (Al-Thuneibat *et al.*, 2008; Schneider and Church, 2008; Trotman *et al.*, 2011). Whenever users of financial statements incur losses as a consequence of their misinterpretation of opinions expressed in the auditors' reports and their over-reliance on the audited statements for their decision making, value of the external audit is always questioned. This is highlighted by the Chairman of Public Company Accounting Oversight Board (PCAOB) in his speech:

[...] in the wake of the financial crisis, investors have called on the PCAOB to make the audit report more useful. They're particularly angry that audit reports do nothing to forewarn investors when a company is in dire financial straits. While auditors most certainly did not cause the financial crisis, some people have legitimately questioned whether audits adequately served investors' needs in the months and years before and during the crisis (Whitehouse, 2011).

In the advanced countries such as the USA, Britain and Japan, auditors are increasingly being sued for professional negligence by failing to detect frauds and providing warning signs of business bankruptcies. In Malaysia, Silver Bird Group Bhd, which is a bread and confectionery maker, recently suffered huge losses due to financial irregularities, and the public-listed company filed a civil suit against its external auditor for negligence and breach of duty of care and/or its duties and responsibilities. It is believed to be the first legal suit by a listed company in Malaysia against its external auditors (*The Star*, 2012).

The Silver Bird case indicates that the resistance to the idea of suing auditors is waning in Malaysia. Legal suits against auditors for professional negligence are based on the premise that the auditors are not performing what is expected of them under the existing law and professional standards. This normally pertains to the gap due to auditors' deficient performance. On the other hand, if users' ignorance and/or unreasonable expectations have led them to misinterpret the auditor's responsibilities and the level of assurance provided, users may not have grounds to charge the external auditors for professional negligence. While the individual auditors and their audit firms are concerned about being sued for professional negligence for not performing in accordance to the requirements of the existing law and standards, professional bodies and regulators are concerned about not effectively communicating the messages in the auditor's report and not formulating adequate professional standards and regulations to meet users' reasonable expectations. Hence, measures to narrow the gap due to auditor's deficient performance, unreasonable user's expectations and deficient standards (or laws) are needed to enhance the overall credibility of the attestation function of statutory audits (Watts and Zimmerman, 1990; Azizkhani *et al.*, 2010).

In Malaysia, external auditors are required to comply with the approved Malaysian standards on auditing (MSA) that define the auditing principles and procedures, as well as the responsibilities of the auditor. MSA are largely developed based on the International Standards on Auditing (ISA). The format of the audit report currently adopted in Malaysia is that of ISA 700, which highlights the responsibilities of both of the directors and the auditors, as well as the scope of the audit, the audit procedure and the level of assurance provided. Fadzly and Ahmad (2004) found significant evidence of AEG in Malaysia, and in particular, the gap with respect to auditors' responsibilities for fraud detection. They also found that audit knowledge and working experience affected users' perception and mitigated the extent of the gap.

Despite the consistent findings of the existence of the AEG in Malaysia and in other countries, there is a dearth of empirical evidence in Malaysia, except for the study by Noghondari and Foong (2009), and also elsewhere, to indicate that AEG is detrimental to the decision performance of users of financial statements. As external audit complements the regulatory and supervisory infrastructure established to ensure credibility of financial reporting for efficient allocation of resources in the capital markets (Azizkhani *et al.*, 2010; Clinch *et al.*, 2012) and the perceived credibility of the audited financial statements is a function of the AEG, the AEG may lead to misallocation of capital resources.

Unlike many of the earlier AEG studies, the main objective of this study is not merely to provide additional empirical evidence that AEG exists among bank officers in Malaysia, but to provide a comprehensive examination of the antecedents and consequences of the AEG in the context of the Malaysian banking sector by first investigating the individual knowledge/experience factors that might have contributed to the AEG among the bank loan officers and then, by assessing the impact of the AEG on their loan decision quality. The role of the AEG as the mediator in the relationship between the individual knowledge/experience factors of the loan officers and their decision quality is also examined. While the study by Noghondari and Foong (2009) examines the Iranian bank officers' loan decision performance in the Islamic banking context, this study examines Malaysian bank officers' loan decision performance in the conventional banking context.

In this study, the AEG is measured by the difference between the bank officer's expectations of the auditor's responsibilities and level of assurance provided by the audit function and those as defined in the Companies' Act and the approved professional standards on auditing in Malaysia. This study only focuses on the reasonableness component of the gap because first, bank loan officers, who are respondents of this study, are frequent users of audited financial statements and should be knowledgeable of the relevant provisions in the law and in the professional standards regarding the duties and responsibilities of an auditor, in order to not have any undue expectation of the level of assurance provided by the audit function or reliability of the audited financial information disclosed in the financial statements. Second, many earlier studies, such as Best *et al.* (2001), Dixon *et al.* (2006), Fadzly and Ahmad (2004), Noghondari and Foong (2009), Pourheydari and Abousaiedi (2011) and Sidani (2007), also have focused only on the reasonableness gap component. The respondents' perception of the auditors' performance achieved in relation to what the existing law and professional standards have defined (auditors' deficient performance gap) is not within the scope of this study.

This study focuses on only one user group, the bank loan officers, because they are considered as the "more knowledgeable" users (Fadzly and Ahmad, 2004), who frequently use the financial statements to evaluate loan applications. In addition, Best *et al.* (2001) reported bankers had the highest perceived decision usefulness of audited financial statements among their three user groups. The other two user groups were the auditors and the investors. The results of Best *et al.*'s study imply that bankers tend to perceive the audited financial statements to be of high creditability and would be likely to rely on the audited financial statements extensively when assessing loan applications. Existence of the AEG among bank loan officers may cause them to misinterpret the auditor's responsibilities and the level of assurance provided by the audit function, and that may result in their over-reliance on the audited financial statements when making their loan assessment decisions. The AEG may lower loan decision quality and jeopardise banks' continual existence. Erroneous credit decisions had led to bankruptcies of many financial institutions that had contributed to the 2008 financial crisis and seriously affected public confidence and investments in the stock exchanges of many countries.

The next section provides a summary of the prior literature on the AEG. It is followed by a description of the research model and the research hypotheses. The research method is then explained, followed by discussion of the results. The final section presents the conclusions and implications of the findings.

2. Prior literature

Review of the literature on AEG indicates that foci of the AEG studies have changed, starting from those earlier studies that focused on defining the AEG and providing evidence of the existence of the gap, to the later studies that emphasised the possible causes for the gap and the measures to narrow it. Implicit in all these studies is that existence of the AEG will bias users' decision-making and lower their decision quality.

The AEG, irrespective of its definition, is consistently found to exist in both the developed and the developing countries (Alleyne and Howard, 2005; Barrett, 2010; Best *et al.*, 2001; Dixon *et al.*, 2006; Fadzly and Ahmad, 2004; Haniffa and Hudaib, 2007; Hassink *et al.*, 2009; Lin, 2004; Lin and Chen, 2004; Onumah *et al.*, 2009; PCAOB, 2011; Pourheydari and Abousaiedi, 2011; Salehi and Azary, 2009; Schneider and

Church, 2008; Sidani, 2007). The accounting profession has attributed the AEG to the users' misunderstanding of the role and purpose of the external audit. Despite the auditor's responsibilities and the role of audit have been clearly defined in the laws and the approved professional standards on auditing in the various countries, the public still view the external audit as an insurance policy to protect users from incidence of frauds and illegal acts, and more importantly, a guarantee of the integrity of the financial statements (Epstein and Geiger, 1994). The earlier research studies on the AEG mainly focus on defining and providing evidence of existence of the gap (Best *et al.*, 2001; Fadzly and Ahmad, 2004; Haniffa and Hudaib, 2007; Low, 1984; Low *et al.*, 1988; Nair and Rittenberg, 1987; Sidani, 2007).

While many researchers define AEG in rather general terms, Porter (1993) and Turner *et al.* (2010) define AEG in more explicit terms to facilitate identification and assessment of the extent of the different gap components. Porter (1993) splits the AEG into the reasonableness gap, which arises from unreasonable users' expectations, and the performance gap, which, in turn, consists of the deficient standards gap and auditor's deficient performance gap. Turner *et al.* (2010) argue that audit service is a type of standard service provided to multiple user groups, and the "one-size fits all" assumption has its limitation as each user group has different expectations and judgments of the audit service quality. Based on the service quality model by Parasuraman *et al.* (1985), Turner *et al.* divide the AEG into four gaps; the research gap arises when the auditors do not understand what users expect of the audit service, the standards gap is due to inability of audit profession to design standards to correspond to users' expectation, the delivery gap results from the inability of the auditors to perform in accordance to the standards and lastly, the communication gap is due to the mismatch between the audit service delivered and the implicit or explicit promises made regarding the audit service.

The audit profession, however, contends that external auditors are engaged by companies to express an opinion on their financial statements as required by the law. Hence, Turner *et al.*'s argument that the external auditor is serving more than one customer or client may not be valid. While other service providers could benefit from customizing their services in accordance to needs of their different customers, external auditors are only paid by the companies which engage their services. More importantly, external audit service is governed by the relevant statutory provisions and professional standards, while other types of customer services are not constrained in the similar manner. Despite the apparent dissimilarity in the nature between the audit service and the other types of services, the four gaps suggested by Turner *et al.* (2010) may be equated to the gap components arising from unreasonable user's expectations, deficient audit standards and auditor's deficient performance.

Research studies on definition of the AEG and the explicit identification of its gap components have led to the later AEG studies that place emphasis on the possible causes for the AEG and measures to narrow the gap. For example, Almer and Brody (2002), in addition to reporting existence of the AEG, also seek to identify the factors that might have contributed to the existence of the gap and the feasible ways to narrow it. Studies on the factors that have contributed to the AEG often attribute the AEG to unreasonable user's expectations, deficient standards and auditor's deficient performance. Education through improved communication is recommended to reduce unreasonable user's expectation (Boyle and Canning, 2005; Humphrey *et al.*, 1992; Koh and Woo, 1998; Siddiqui *et al.*, 2009). Some studies have indicated the long-form audit report format

is effective in reducing the gap relating to misconception of the auditor's responsibilities (Gay *et al.*, 1998; Monroe and Woodliff, 1993, 1994; Schelluch, 1996).

Other researchers (Almer and Brody, 2002; Foster *et al.*, 2005, 2009, 2010; Hatherly, 2009) opine that users and preparers of financial statements would only be able to accurately assess the actual opinion of auditors in the absence of any noise in their communication channels, such as through clearer and explicit communication of the role and function of the audit in the auditor's report to stakeholders of corporations. All of these studies had led to the Auditing and Assurance Standards Board (AASB, 2011) believing that the communicative value of the auditors' report might be improved by changing the wording or even the structure of auditors' report. Subsequently, ISA 700 and ISA 720 were revised by the International Auditing and Assurance Standards Board (IAASB) to aim at narrowing the AEG. Revision of the relevant regulations, such as the passing of the Sarbanes-Oxley Act in July 2002 by the US Government, is also perceived as an effective way to mitigate the AEG due to perceived deficient standards that fail to meet the reasonable user's expectation (Dewing and Russell, 2002; Epstein and Geiger, 1994; Gold *et al.*, 2012; Nieschwietz and Woolley, 2009; Zhang, 2007).

Despite the numerous studies that have consistently reported existence of the AEG and the others on how certain measures such as word changes to messages in the auditor's report and explicit disclosures of auditor's responsibilities and audit requirements under the existing law and standards could improve users' understanding of the audit function, few studies have attempted to show how existence of the AEG would seriously and adversely affect user's decision performance to justify the costs associated with attempts to narrow the gap. Currently, there is a dearth of literature on the consequences of existence of the AEG, except for the study by Noghondari and Foong (2009). Noghondari and Foong reported existence of the AEG among Iranian bank loan officers and found that the level of accounting knowledge of the loan officers could mitigate the extent of the expectation gap. More importantly, results of their study indicated that the quality of the Iranian bank officers' loan decisions that were based on the Islamic principles was adversely affected by the AEG, and the AEG fully mediated the relationship between the individual knowledge factor and loan decision performance of the Iranian bank officers.

In summary, although there have been extensive and consistent research findings of existence of the AEG in many developing and developed countries, and also similar measures were recommended to mitigate the AEG, there are very few studies that examine the impact of the AEG on user's decision performance. Such empirical evidence of how existence of the AEG may adversely affect decision performance is necessary to justify more urgent strategy or action plan to narrow the gap.

3. Research model and hypotheses

Individual factors, such as knowledge and experience, shape human judgment and attitude (Bolisani and Scarso, 1999), and influence human decision making (Collan and Lainema, 2005; Epstein and Geiger, 1994; Humphrey *et al.*, 1992; Mansori, 2012). It is widely reported that individuals rely on their knowledge and experiences to interpret the environmental stimuli they encounter in their decision making process (Harding, 2010). In a review of the literature, Maheswaran and Pinder (2010) conclude that experience and education are the two important elements that substantially affect

the quality of decisions of finance managers. More experienced auditors are found to make more-accurate and reliable judgments as they are more capable to withstand cognitive stress and to identify relevant information (Wu, 2011).

In this study, the component gap examined is the reasonableness gap, which arises due to unreasonable user's expectations. Users of financial statements are often unaware of the inherent probabilistic nature of auditing and as a consequence, they are likely to make excessive (unreasonable) demands of the audit service. Similarly, lack of knowledge of the provisions in the existing law and professional standards with regard to the auditors' responsibilities and the role of audit may also contribute to the difference between user's expectations and those defined in the existing law and standards. Prior studies have provided empirical evidence that knowledge and experience of users of financial statements could reduce extent of the AEG. For example, Bailey *et al.* (1983) found that the more knowledgeable users placed less responsibility on auditors as compared to their less knowledgeable counterparts. Monroe and Woodliff (1993) found that education significantly improved the undergraduates' interpretation of the messages conveyed in the auditor's report. Fadzly and Ahmad (2004) also reported that audit knowledge and working experience affected user's perception and mitigated extent of the gap. In particular, Fadzley and Ahmad found that the level of assurance expectation of the banker subjects declined with audit knowledge and work experience, despite their findings of the banker user group as having the highest expectation of the level assurance provided by the auditors among the three user groups, and their expectation as being significantly different from that of the auditor group.

This study focuses on the loan decision quality of bank officers. Bank officers rely fairly extensively on the audited financial statements to gauge the associated risks of each loan application, and the accompanying auditor's report plays an important role in influencing the perceived credibility of the information disclosed in the financial statements and the degree of reliance that the bank officers may subsequently have on the financial statements when making their loan assessment decisions. The extent of the bank officer's reliance on the audited financial statements in his/her decision-making, in turn, is expected to impact his/her decision outcome. Based on the decision making theories on the influence of knowledge and experience on human decision-making and prior empirical findings, it is postulated that accounting education, accounting-related work experience and job-related work experience can mitigate extent of the AEG of the bank loan officers, and the three related hypotheses are formulated as follows:

- H_1 . Loan officer's accounting qualification is negatively associated with the AEG.
- H_2 . Loan officer's accounting-related work experience is negatively associated with the AEG.
- H_3 . Loan officer's job-related work experience is negatively associated with the AEG.

In view of the expected effects of individual knowledge and experiences on decision-making, a bank loan officer with little accounting knowledge and accounting-related or job-related work experience is likely to have expectations of the audit function and the auditor's responsibilities different from those defined in the existing law and standards; thus giving rise to the AEG. In addition, due to the lack of accounting and/or relevant work experiences, the loan officer may not fully understand

the messages in the auditor’s report and theory on human information processing (Libby, 1979) predicts that the level of assurance on the accuracy of the information disclosed in the audited financial statements would be misinterpreted. As a consequence, the loan assessment decision based on the audited financial statements would be unduly biased due to the misinterpretations. For example, if a loan officer, due to his/her lack of accounting knowledge and experience, assumes that an unqualified auditor’s report implies absolute assurance of the accuracy of the information reported in the audited financial statements, he/she would rate the loan application with an unqualified auditor’s report as low or zero risk. Accordingly, the loan application would be recommended for approval with an interest rate that is much lower than that recommended if no such misconception exists, and such misconception could lower performance. Therefore, the fourth hypothesis, H_4 , is formulated as follows:

H_4 . The AEG is negatively associated with loan decision quality.

The positive impact of knowledge and experience on decision quality is well documented in the literature (Collan and Lainema, 2005; Epstein and Geiger, 1994; Humphrey *et al.*, 1992; Maheswaran and Pinder, 2010; Mansori, 2012; Wu, 2011). In this study, the loan officer’s accounting knowledge and work experience are expected to affect his/her AEG, which, in turn, would affect his/her loan decision quality. Hence, AEG plays a mediating role in the relationship between the loan officer’s accounting knowledge and work experience and his/her loan decision quality. The three hypotheses related to the mediation model for empirical testing are as below:

H_5 . The AEG mediates the relationship between loan officer’s accounting qualification and loan decision quality.

H_6 . The AEG mediates the relationship between loan officer’s accounting-related work experience and loan decision quality.

H_7 . The AEG mediates the relationship between loan officer’s job-related work experience and loan decision quality.

Figure 1 shows the research framework for this study. The framework depicts that accounting knowledge, accounting-related and job-related work experiences of bank

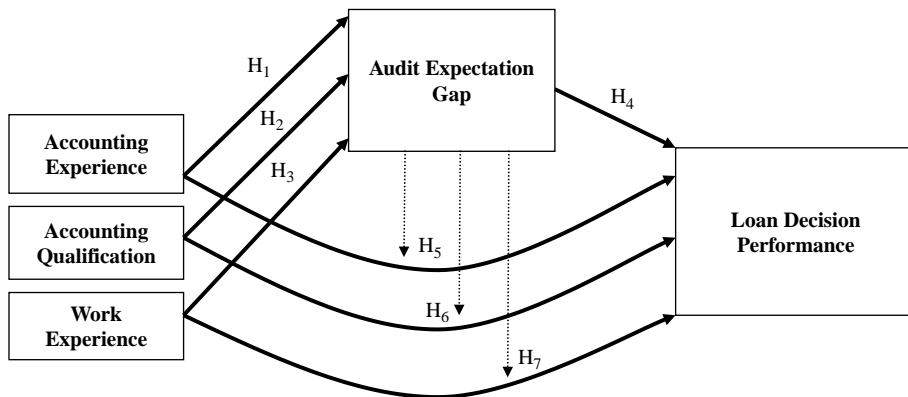


Figure 1. The research framework

officers will affect the extent of their AEG, which, in turn, will affect the officers' loan decision quality. The relationship between individual knowledge/experience factors and loan decision quality could, however, be explained (or mediated) by the extent of the AEG.

4. Methodology

4.1 Data collection and sample design

The banking industry in Malaysia offers both conventional commercial banking and Islamic banking services. The conventional commercial banking sector controls more than 94 per cent[1] of the total assets of the Malaysian financial system and is the key provider of financial services to both retail and corporate customers in Malaysia, while the Islamic banking sector focuses more on individuals. The respondents in this study were bank loan officers from the top four domestic commercial banks in Malaysia. These four domestic banks own almost 44 per cent of the total assets in the commercial banking sector in Malaysia. A total of 320 copies of a structured questionnaire were distributed to the human resource departments at the headquarters of the four commercial banks. The human resource departments then re-directed the questionnaires to the branch managers of randomly selected bank branches located in the Klang Valley[2]. The questionnaires were, in turn, randomly distributed to the loan officers in each of the selected branches. Two hundred and twelve completed questionnaires were subsequently collected for data analyses.

The structured questionnaire was largely based on that used in the Noghondari and Foong (2009) study. It consisted of three sections: Section I gathered data on the accounting knowledge, work experiences and other demographic details of the respondents, Section II focused on measures of the reliability and the responsibility component gaps, and Section III contained items used to gauge the quality of the bank officer's loan decisions. The questionnaire items used to measure the constructs examined were bipolar statements which were separated by a six-point Likert-type scale (0 to 5). Each respondent was requested to choose a number from the scale that best resembled his/her level of agreement to one or the other statement. Before the distribution of the questionnaires to the respondents, the questionnaire was first pre-tested with a few bank loan officers to ensure the items in the questionnaire were comprehensible and relevant to the banking sector. Based on feedbacks from these bank officers, some minor modifications were made to the wordings of some of the statements used in the questionnaire.

4.2 Measurements of variables

As there is no evidence that the existing law and standards are deficient in Malaysia, this study focuses only on the reasonableness gap, with the implied assumption that the existing law and standards represent users' reasonable expectations. The reasonableness component of AEG is most often examined because the perception of the financial statement user can be compared to the requirements of the law and the professional standards. Many of the earlier AEG studies compared perceptions of the different user groups to that of the auditor group due to auditor's understanding of the provisions of the law and the professional standards. The auditors' deficient performance gap is not within the scope of this study. There are two components in the reasonableness gap examined in this study: the auditor's responsibility gap component and the auditor's report reliability gap component. The measures for these two

components, which represent the reasonableness of expectations with regard to the auditor's responsibility and the auditor's report reliability, were obtained by comparing the bank officer's understanding of the provisions in the law and standards related to the auditor's responsibilities and the reliability (or level of assurance provided by the audit function) of financial statements. These provisions are conveyed as messages in the auditor's report. The audit profession in Malaysia has adopted ISA 700 as the reporting format for the independent auditor's report, in which the messages on auditor's responsibilities and level of assurance provided, as well as the auditor's opinion are disclosed explicitly. Prior studies such as Best *et al.* (2001), Fadzly and Ahmad (2004), Dixon *et al.* (2006), Schelluch (1996), Sidani (2007) and Noghondari and Foong (2009) have also confined their AEG studies to the reasonableness gap that is divided into the responsibility and the reliability gap components.

The responsibility (or the reliability) gap component in this study is defined as the difference between the respondent's expectation of the auditor's responsibilities (or reliability of the auditor's report) and that defined in the Companies' Act and the approved standards in Malaysia. The items used to measure the reliability and the responsibility gap components were adapted from prior literature (Best *et al.*, 2001; Dixon *et al.*, 2006; Fadzly and Ahmad, 2004; Noghondari and Foong, 2009). The questionnaire items used to measure the two gap components are shown in the Appendix.

Loan decision quality was measured by the percentage of defaults in each respondent's customer loan portfolio. In Malaysia, banks classify loan defaults into one of the four types of non-performing loans: bad loan, doubtful loan, substandard loan and special-mentioned loan. The classification is based on the bank's re-scheduled loan repayment timetable and its perceived probability of loan repayment. Bad loans refer to loans with the lowest probability of repayment, while special-mentioned loans represent loans with the highest probability of repayment. The Appendix also shows the questionnaire items used to measure the loan decision quality.

Accounting qualification was a dummy variable: 1 for respondent with an accounting qualification and 0 for otherwise. Accounting-related work experience was measured by the number of years in performing accounting-related work. Job-related experience was measured by the number of years of working as a bank loan officer.

4.3 Analytical method

The structural equation modelling (SEM) technique available in AMOS 18 statistical software package was used to analyse the data collected. The maximum likelihood (ML) estimation method, which is the most frequently used method (Iriondo *et al.*, 2003), was used to estimate the value of the unknown parameters. ML estimation method was based on two assumptions. First, the data should be normally distributed and multivariate normality requires the kurtosis and skewness value of the data value of each variable to be less than 7 for the kurtosis and within the +2 to -2 range for the skewness (Byrne, 2009) (Table III). The second assumption is that the scaling of dependent variable should be continuous. Both these assumptions of the data of this study were met.

5. Results and discussion

5.1 Descriptive analysis

The average accounting-related work experience and work-related experience of the respondents were 2.55 years and 9.5 years, respectively. The rather high average

job-related experience of the respondents suggests that the bank officers surveyed had considerable experience in their jobs as loan officers and could provide experienced judgments on the questionnaire items. Table I shows the descriptive statistics for the two gap components and the overall AEG. The mean score for the overall AEG was 3.1 (0 indicates no expectation gap at all and 5 indicates very high expectation gap), which indicates that the AEG existed among the bank loan officers and their expectations of the external audit function and the auditors' responsibilities were higher than those defined in the Companies' Act and the approved standards on auditing in Malaysia. The mean score for the responsibility gap component was 3.4 as compared to 2.9 for the reliability gap component.

Table II shows the descriptive statistics of the overall loan decision quality and its components. The mean of the loan decision quality was 3.45 (5 indicates high loan defaults or very low loan decision quality; while 0 indicates zero nonperforming loan or very high loan decision quality). The mean score for bad loans and doubtful loans were 3.34 and 3.4, respectively, and those mean scores might be translated to mean approximately 4 per cent of the customer loan portfolio of (or approved by) the bank loan officer were either classified as bad or doubtful loans. The mean score for the sub-standard loans and the special-mentioned loans were 3.54 and 3.5, respectively, and these mean scores might be translated to mean approximately 6 per cent of the customer loan portfolio of (or approved by) the bank loan officer were either classified as sub-standard loans and the special-mentioned loans.

5.2 Tests for validity and reliability

The responsibility and the reliability gap components were each measured by five items. The loan decision quality construct was represented by four loan default indicators. Confirmatory factor analysis (CFA) was used to determine the degree of model fit, the explained variances, the standardized residual for the measurement

Table I.
Descriptive statistics for individual factors, AEG and its components

	Mean score	SD	Min.	Max.
Accounting-related work experience (years)	2.55	2.90	0	15
Job-related experience (years)	9.50	5.98	1	27
Overall audit expectation gap	3.1	0.93	0.4	4.8
Responsibility gap	3.4	1.02	0.4	5.00
Reliability gap	2.9	1.15	0	5.00

Notes: Scale for gap: 0 – no gap; 5 – extremely high gap

Table II.
Descriptive statistics for loan decision performance and its components

Loan category	Mean score	SD	Min.	Max.
Bad loan (scale: 0 = >8%; 5 = 0%)	3.34 (about 4%)	1.08	0	5
Doubtful loan (scale: 0 = >8%; 5 = 0%)	3.4 (about 4%)	1.05	0	5
Substandard loan (scale: 0 = >12%; 5 = 0%)	3.54 (about 6%)	1.03	0	5
Special mention loan (scale: 0 = >12%; 5 = 0%)	3.5 (about 6%)	1.02	0	5
Overall performance (scale: 0 – very poor decision quality; 5 – zero loan default)	3.45	0.87	0.25	5

variables, the adequacy of the factor loading and the overall fit of a measurement model. The constructs were examined both individually and all together (as a measurement model). CFA requires three criteria to be met. First, all items in each construct should be normally distributed. Second, the factor loading for all the items should be at least 0.5 (Table III) and third, the model should have an acceptable degree of goodness of fit (Table IV). The constructs had met three criteria in a measurement model after having removed some outliers.

Composite reliability (CR) was employed for establishing reliability of measurement. CR coefficients ranged from 0.82 to 0.86 which were above the acceptance level of 0.70 (Hair *et al.*, 2010) (Table III). In addition, the average variance extracted (AVE) and CR were used to evaluate convergent validity. As shown in Table III, the CR coefficients are much larger than those of the AVE. As the AVE coefficients ranged from 0.50 to 0.61,

Variable	Skewness	Kurtosis	Factor loading	Cronbach's α	CR	AVE	MSV	ASV
Responsibility gap				0.82	0.82	0.50	0.30	0.29
RES5	-0.28	-0.84	0.63					
RES4	-0.70	-0.30	0.70					
RES3	-0.33	-0.73	0.66					
RES2	-0.40	-0.70	0.66					
RES1	-0.72	-0.47	0.77					
Reliability gap				0.85	0.85	0.52	0.30	0.25
RELI5	-0.30	-0.94	0.72					
RELI4	-0.26	-0.94	0.81					
RELI3	-0.08	-0.92	0.69					
RELI2	-0.15	-0.75	0.67					
RELI1	-0.25	-0.95	0.72					
Loan decision performance				0.86	0.86	0.61	0.28	0.24
Bad loan	-0.51	0.01	0.80					
Doubtful loan	-0.32	-0.27	0.92					
Substandard loan	-0.39	-0.04	0.61					
Special mentioned loan	-0.64	0.20	0.75					

Table III.
Summary of measurement scale, reliability and validity

	Measurement model	Structure model (Model 1)	Structure model (Model 2)	Standard for acceptance
χ^2	114.31	151.66	172.55	NA
DF	74	113	110	NA
<i>p</i> -value	0.002	0.01	0.00	< 0.05
CMIN/DF	1.5	1.38	1.53	< 2
GFI	0.92	0.92	0.91	> 0.9
CFI	0.96	0.97	0.96	> 0.9
TLI	0.96	0.96	0.95	> 0.9
IFI	0.97	0.97	0.96	> 0.9
NFI	0.91	0.90	0.89	= 0.9
RMSEA	0.05	0.04	0.05	< 0.08

Table IV.
Parameters of the models

they were above the recommended cut-off level of 0.50. The item loadings, which ranged from 0.61 to 0.92, were also above the recommended cut-off level of 0.50, and the results indicate adequate convergent validity (Hair *et al.*, 2010). The discriminant validity assessment was based on the average shared squared variance (ASV) and maximum shared squared variance (MSV). The ASV measures ranged from 0.24 to 0.29 and those of the MSVs ranged from 0.28 to 0.30. Based on the results presented in Table III, the constructs under analysis were distinct and discriminately valid, as both ASVs and MSVs were smaller than AVE (Hair *et al.*, 2010).

5.3 Path analysis of latent variables

Structural equation model (SEM) is often used for estimating alternative models and model generation is strictly on confirmatory basis (Chou and Bentler, 2002). This section presents the path analysis of the latent constructs in three structural models; mediation structural model (Model 1), indirect structural model (Model 2) and direct structural model (Model 3).

In Model 1, all relationships among variables are investigated. The relationships are those among individual factors (independent variables), those between the two components of the AEG (mediation variable) and loan decision quality (dependent variable), as well as the relationship between the AEG and the loan decision quality. In the Model 2, the relationships between the individual factors and the AEG, as well as the association between the AEG and loan decision quality are examined, while the relationships between the individual factors and loan decision quality are excluded (Figure 2: $c_1, c_2, c_3 = 0$). Finally, the Model 3 assesses only the relationships between the individual factors and loan decision quality, while the other relationships are excluded from the model (Figure 2: $c_1, c_2, c_3, b = 0$).

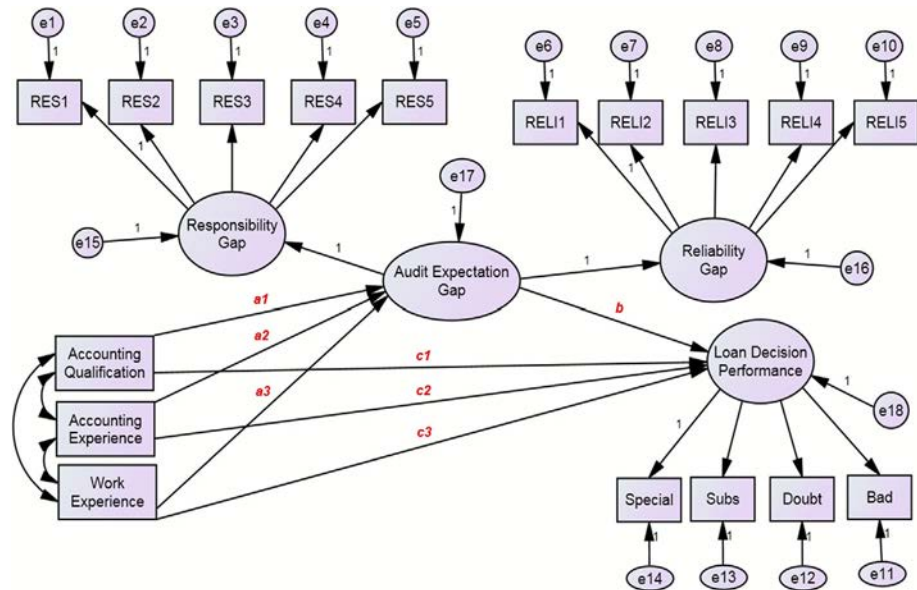


Figure 2. Estimated path coefficients of the hypothesised model

5.4 Mediation and indirect path models

The overall fits of two models were used for comparison of Model 1 and Model 2. Both Model 1 and Model 2 were nested and their degrees of freedoms were different. Multi-model analysis was used to compare the goodness of fit of these models. The baseline comparison fit indices, model comparison statistics and χ^2 goodness of fit statistics for both Model 1 and Model 2 are presented in Table IV. The baseline comparison fit indices such as GFI, CFI, TLI, IFI and NFI for both Model 1 and Model 2 range from 0.89 to 0.97. In addition, the root-mean square error of approximation (RMSEA) fit index for Model 1 and Model 2 are 0.04 and 0.05, respectively, (Table IV). Overall, the results show that both models have acceptable model fit.

Although both models exhibited fairly good fit of the data, Model 1 showed a better fit at significant level of 0.001 (Table V). In addition, Model 1 yielded a lower AIC value (239.62) than that (254.23) of Model 2, and that indicates Model 1 had a better fit and more parsimonious than Model 2 (Ho, 2006). Therefore, the results indicate that the AEG mediates the relationship between the individual factors and loan decision quality.

5.5 Hypotheses testing

According to the squared multiple correlations for the hypothesized model, 28 per cent of the variance of the AEG was explained by the individual factors (accounting qualification, accounting-related work experience, job-related experience). Similarly, 55 per cent of the variance of loan decision quality was accounted for by the joint influences of the predictors, the AEG and the individual factors.

According to Preacher and Hayes (2004) and Mathieu and Taylor (2006), the mediation effect is quite different from the indirect effect. To have a mediation effect four conditions should be met. First, independent variable should have a significant relationship with the dependent variable, in the absence of meditating variable (Model 3). Second, the independent variable should significantly affect the mediating variable (Figure 2: a_1 , a_2 and a_3). Third, the mediating variable should also significantly influence the dependent variable (Figure 2; b). Fourth, if the independent variable, in the presence of the mediating variable, has a significant relationship with the dependent variable, the mediation effect is only partial, but if it does not, then there is full mediation (Model 1). However, for indirect relationship to exist, the independent variable should have no significant relationship with the dependent variable, in the absence of intervening variable (Model 1), meaning that the independent variable could influence the dependent variable only via the intervening variable (Model 2).

Based on the results as summarised in Table VI, the AEG has adversely and significantly affected the loan decision quality (path b in Model 1 and Model 2). Hence, hypothesis H_4 is supported. Accounting qualification has a significant and negative relationship with the AEG (path a_1 in Model 2), and it is also significantly related to loan decision quality in absence of the AEG (path c_1 in Model 3). However, it does not have a significant relationship with loan decision quality in the presence of the AEG

Model	DF	CMIN	P-value	NFI (Delta-1)	IFI (Delta-2)	RFI (rho-1)	TLI (rho2)
Model 2	3	20.89	0.0001	0.01	0.01	0.01	0.01

Table V.
Nested model comparisons (assuming Model 1 is correct)

Hypothesis	Dependent variables	Independent variables	Path	Model 1	Model 2	Model 3
AQ-AEG (H_1 supported)	Audit expectation gap	Accounting qualification	a_1	-0.23**	-0.24***	0
AE-AEG (H_2 supported)	Audit expectation gap	Accounting-related work experience	a_2	-0.27**	-0.47***	0
WE-AEG (H_3 supported)	Audit expectation gap	Job-related experience	a_3	-0.30***	-0.19*	0
AEG-LDP (H_4 supported)	Loan decision performance	Audit expectation gap	b	-0.57***	-0.78***	0
	Loan decision performance	Accounting qualification	c_1	0.05	0	0.17**
	Loan decision performance	Accounting-related work experience	c_2	0.34***	0	0.50***
	Loan decision performance	Job-related experience	c_3	-0.12	0	0.05

Table VI.
Results of analyses of the relationships among accounting qualification, AEG, loan decision performance

Notes: Significant at: *0.05, **0.01 and ***0.001; AQ – accounting qualification, AE – accounting-related work experience, WE – job-related experience, AEG – audit expectation gap, LDP – loan decision performance

(path c_1 in Model 1). Therefore, it is concluded that the AEG fully mediates the relationship between accounting qualification and loan decision quality, and hypotheses, H_1 , and H_5 , are supported.

Accounting-related work experience has a significant and negative relationship with the AEG (path a_2 in Model 1 and Model 2), as well as a significant positive relationship with loan decision quality in the absence of the AEG (path c_2 in Model 3). As the AEG and loan decision quality has a significant relationship (path b in Model 1 and Model 2), the AEG only partially mediates the accounting-related work experience-loan decision performance relationship. Thus, hypothesis, H_2 is supported while hypothesis, H_6 , is only partially supported.

The job-related experience of the bank loan officer has a significant negative relationship with the AEG (path a_3 in Model 1 and 2). However, the job-related work experience has no direct relationship with loan decision quality (path c_3 in Model 3). The findings suggest that job-related work experience has an indirect relationship with loan decision quality. Therefore, although the hypothesis, H_3 , is supported, hypothesis, H_7 , is not supported.

Based on further in-depth analyses, the regression results of the effects of the individual factors, as well as those of the AEG components, on the individual categories of loan decision performance such as, bad loan, doubtful loan, substandard loan and special-mentioned loan, are very similar to the regression results reported earlier. In addition, all the mediation and indirect effects are also verified and supported by the Sobel test at the confidence level of 0.05.

5.5.1 Bootstrapping. Another alternative approach to capture mediation and indirect effect is to bootstrap the sampling distribution. This approach is not based on the large-sample theory. In the bootstrapping approach, asymmetries and other forms of non-normality in the sampling distribution of mediation and indirect paths are managed. In other words, bootstrapping can also be applied to smaller samples with

more confidence (Preacher and Hayes, 2004). The bootstrap procedure is used based on 5,000 samples to derive a 95 per cent confidence bias-corrected confidence interval for mediation and indirect paths. As shown in Table VII, the previous results are confirmed with the bootstrapping approach (at 95 per cent confidence interval). The AEG fully mediates the relationship between accounting qualification and loan decision quality and partially mediates the accounting-related work experience-loan decision performance relationship. There is also indirect relationship between job-related experience and loan decision quality via the AEG.

6. Conclusion

This study examines the relationships between accounting qualification, accounting-related work experience and job-related work experience of bank loan officers and extent of the AEG, and investigates how the AEG affects the loan officers' loan decision quality. In addition, the mediating role of the AEG on the relationship between the individual knowledge/experience factor and loan decision quality is also examined. The results show that accounting qualification, accounting-related work experience and job-related work experience could significantly mitigate extent of the AEG and hypotheses, H_1 , H_2 and H_3 are supported. The findings are consistent with the prior studies (Bailey *et al.*, 1983; Fadzly and Ahmad, 2004; Monroe and Woodliff, 1993) with regard to the effect of education, knowledge and experience on the AEG. In this study, the expectations of those bank loan officers, who had the accounting qualification, accounting-related work and job-related work experiences, are more in accordance with the auditor's responsibilities and the level of assurance provided by the audit function as defined in the law and the approved auditing standards than those of officers with no accounting qualification and little or no accounting-related and job-related work experiences. More importantly, this study provides strong

Hypothesis	Standardized effects ($c_1, c_2, c_3, b = 0$)	Standardized effects ($c_1, c_2, c_3 = 0$)	BC percentile 95% CI		Standardized effects	BC percentile 95% CI		Type of relationship
			Lower	Upper		Lower	Upper	
AQ-AEG-LDP (H_5 supported)	0.17**	0.14***	0.04	0.27	0.04	-0.10	0.17	Fully mediation
AE-AEG-LDP (H_6 partially supported)	0.50***	0.15***	0.04	0.30	0.34**	0.18	0.46	Partial mediation
WE-AEG-LDP (H_7 not supported)	0.05	0.17***	0.06	0.32	-0.12	-0.28	0.03	Indirect effect

Notes: Significant at: *0.05, **0.01 and ***0.001; AQ – accounting qualification, AE – accounting experience, WE – job-related experience, AEG – audit expectation GAP, LDP – loan decision performance

Table VII. Results of analyses of the relationships among accounting qualification, AEG, loan decision performance (bootstrapping approach)

empirical evidence of the significant adverse effect of the AEG on bank officer's loan decision quality (Hypothesis, H_4 , is supported).

Despite the differences in the banking, economic, social and political environments between Iran[3] and Malaysia, the findings of this study largely concur with those in Noghondari and Foong (2009), except that Noghondari and Foong reported no significant relationships between work experiences (both the accounting-related and job-related experiences) and the AEG. Accounting-related and job-related work experiences did little to mitigate the AEG of the Iranian bank officers because banks in Iran generally placed very little emphasis on training and feedback from the Iranian bank officers. This indicated that even if in-house training courses were conducted, the courses were largely ineffective and not oriented to developing the required job-related skills. In this study, both the accounting-related and job-related work experiences were significantly and negatively related to the AEG. This finding suggests that banks in Malaysia are more effective in their in-house and on-job training as compared to their counterparts in Iran. This study contributes to the scarce empirical evidence on the impact of the AEG on loan decision quality in the conventional banking context. In addition, the results also indicate the direct and indirect types of mediating effects that the AEG could have on the relationships between the knowledge/experience factors (accounting qualification, accounting-related work experience and job-related experience) and loan decision quality.

The findings of this study show the existence of a fairly large AEG even among experienced bank loan officers from the four large commercial banks in Malaysia and that the gap was harmful to the loan decision quality of these loan officers. Hence, it should be of interest to the banks to institute mitigation measures to narrow the AEG among their loan officers to halt further deterioration of their loan decision quality. Policies for the recruitment and training of loan officers by banks must be carefully formulated. As the AEG is negatively related to the accounting knowledge, accounting-related work and job experiences of the bank loan officers, non-performing loans in bank may be reduced by recruiting officers with the appropriate accounting qualifications, accounting-related and job-related work experiences and also through designing the appropriate staff training programmes to enhance their understanding of the auditor's responsibilities and the level of assurance provided by the audit function to avoid undue or over-reliance on the audited financial statements when assessing loan applications.

The results of this study may be also helpful to business schools and accounting faculties in making them more aware of the importance of providing a clear understanding of the statutory role of the audit function and the auditor's responsibilities to the business and accounting students, who are likely to be frequent users of audited financial statements. The empirical evidence provided in this study may signal to the regulators and professional bodies of the high expectations of some key users of financial statements, such as bank loan officers regarding the auditor's responsibilities and the level of assurance provided by the audit function, and the adverse consequences of the AEG on user's decision performance if the user's high expectations are not accordingly addressed. Besides educating the users, regulators and professional bodies may help to mitigate the AEG by revising the relevant statutes/regulations and professional standards to meet the growing users' expectations in this changing business environment.

This study, however, only examines decision quality of a sample of bank loan officers from only four, albeit large, commercial banks in Malaysia. Hence, the findings

may not be generalizable to other financial institutions in Malaysia or to organizations operating in different business environments, even though the current findings are highly consistent with those of Noghondari and Foong (2009) which examined the loan decision quality of Iranian bank loan officers in an Islamic banking setting. Future research may examine the antecedents and consequences of not only the reasonableness gap but also the performance gap in other environmental settings. The current findings of the partially mediation effect of the AEG on the relationship between the accounting-related work experience and the loan decision quality and the indirect effect of job-related work experience on loan decision quality suggest the existence of other possible organizational or contextual variable(s) that may also affect the AEG and the individual decision performance. Future research studies may explore the effects of other contextual factors on the AEG, and experimental studies on the effectiveness of different mitigating measures to enhance financial statement user's decision performance may also be considered.

Notes

1. Based on data derived from Bankscope database 2012.
2. The Klang Valley covers the entire urban areas in the vicinity of and including the city of Kuala Lumpur.
3. Banks in Iran adhere to the Islamic principles in all their banking activities.

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Appendix. Audit expectation gap

(a) Responsibility factor

RES1	The auditor is not responsible for detecting all frauds in client company.	0 1 2 3 4 5	The auditor is responsible for detecting all frauds in client company.
RES2	The auditor is responsible for the soundness of the internal control structure of the client company.	0 1 2 3 4 5	The auditor is not responsible for the soundness of the internal control structure of the client company.
RES3	The auditor is not responsible for maintaining accounting records	0 1 2 3 4 5	The auditor is responsible for maintaining accounting records.
RES4	The auditor is not responsible for preventing frauds.	0 1 2 3 4 5	The auditor is responsible for preventing frauds.
RES5	The auditor is responsible for detecting all errors client company.	0 1 2 3 4 5	The auditor is not responsible for detecting all errors client company.

(b) Reliability factor

RELI1	Users do not have the absolute assurance that the audited financial statements contain no material misstatements.	0 1 2 3 4 5	Users have the absolute assurance that the audited financial statements contain no material misstatements.
RELI2	The extent of assurance given by the auditor is clearly indicated in the audit report.	0 1 2 3 4 5	The extent of the assurance given by the auditor is not clearly indicated in the audit report.
RELI3	The audited financial statements provide a true and fair view of firms' situation.	0 1 2 3 4 5	The audited financial statements provide an accurate view of firms' situation.
RELI4	Auditor dose not assure that the client company is free from fraud.	0 1 2 3 4 5	Auditor assures that the client company is free from fraud.
RELI5	The extent of audit work performed is clearly communicated by auditor in the audit report.	0 1 2 3 4 5	The extent of audit work performed is not clearly communicated by auditor in the audit report.

Non-performing loan

(1) Based on the loans previously approved by you, please indicate the percentage of those borrowers whose loan have later been found under **Bad Loans** category in the past year?

0 %	1 to < 2%	2 to < 4%	4 to < 6%	6 to < 8%	8% and more
0	1	2	3	4	5

- (2) Based on the loans previously approved by you, please indicate the percentage of those borrowers whose loan have later been found under ***Doubtful Loans*** category in the past year?

0 %	1 to < 2%	2 to < 4%	4 to < 6%	6 to < 8%	8% and or more
0	1	2	3	4	5

- (3) Based on the loans previously approved by you, please indicate the percentage of those borrowers whose loan have later been found under ***Substandard Loans*** category in the past year?

0 %	1 to < 3%	3 to < 6%	6 to < 9%	9 to < 12%	12% and or more
0	1	2	3	4	5

- (4) Based on the loans previously approved by you, please indicate the percentage of those borrowers whose loan have later been found under ***Special-Mentioned Loans*** category in the past year?

0 %	1 to < 3%	3 to < 6%	6 to 9%	9 to < 12%	12% and or more
0	1	2	3	4	5

About the authors

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