

Analytical Review Techniques Preferred by Auditors in Wilayah Persekutuan Malaysia

Ros Norita Abd Samad¹, Anita Che Hassan², Ithnahaini Baharuddin¹, Siti Rokyah Md Zain¹

Faculty of Accountancy

¹Universiti Teknologi MARA (Terengganu), 23000 Dungun, Terengganu, Malaysia

²Universiti Teknologi MARA (Kelantan), 18500 Machang, Kelantan, Malaysia

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ABSTRACT

There are many techniques available for Analytical Review (AR), ranging from simple to complex analysis. The advance in the computing technology and the abundance of information are among the factors that have contributed to the increasing number of techniques available for AR. The objective of this paper is to provide information on the choices of AR techniques by auditors in Malaysia. A total of 380 questionnaires were distributed to the practicing auditors in Wilayah Persekutuan, Malaysia where 116 auditors responded. The result shows auditors prefer to use judgemental techniques (comparison of two points) and simple quantitative techniques (simple reasonableness test and ratio analysis) compared to advanced quantitative techniques (regression model). The result also indicates the increase in the use of judgemental and simple quantitative techniques compared to advanced quantitative techniques. As for the reason of not using advanced quantitative techniques, most of the respondents chose 'complex' as their reason. This paper contributes towards greater understanding on the AR techniques practices by auditors in Malaysia.

KEYWORDS: Analytical Review, Judgemental Techniques, Simple Quantitative Techniques, Advanced Quantitative Techniques, Malaysian Auditors.

INTRODUCTION

There are many techniques available for Analytical Review (AR), ranging from simple to complex analysis. AR is the analysis or investigation of deviation from prediction. It is also one of the procedures that help auditors to achieve the level of audit assurance needed to form an audit opinion. AR is considered as more efficient compares to time consuming test of details [1]. The advance in the computing technology and the abundance of information are among the factors that have contributed to the increasing number of techniques available for AR [2]. The context of analytical review procedures within the audit process was originally established in US way back in 1972 by Statement on Auditing Standards (SAS) No. 1, which states "The evidential matter required by the third standard (of field work) is obtained through two general classes of auditing procedures: (a) test of details of transactions and balances, and (b) analytical review procedures applied to financial information" (AICPA 1972, para. 320.70) [3].

In 1988, the Statement of Auditing Standards (SAS) No. 56 of the AICPA was issued. Hence, it has been considered as an authoritative pronouncement that give recognition to AR. AICPA (1988) describes AR as to obtain information through "A study of the plausible relationships among financial and non-financial data".

Auditors in Malaysia were not also been left out in using AR within the audit process. However, it was only made mandatory for all members to observe in respect of audits commencing on or after 1 July 1998. The definition of analytical procedure was given by International Standard on Auditing (ISA) which means "Evaluations of financial information through analysis of plausible relationships among both financial and non-financial data. Analytical procedures also encompass such investigations as is necessary of identified fluctuations or relationships that are inconsistent with other relevant information or that differ from expected values by a significant amount" (ISA 520, para. A1-A3).

Since AR is the investigation of deviation from prediction, various techniques may be used in performing the AR. The choices of techniques are ever-increasing, especially in this decade. It is characterised by the mushrooming of the computer software packages and the abundance of internet-sourced information for making cross company or industry comparisons [2]. All these have resulted in the availability of new techniques for developing auditors' expectations about clients. The techniques may range from simple comparisons to complex analysis using advanced statistical methods. The choice of techniques is left by Malaysian auditing authority as a matter of auditor's professional judgement.

The literature generally classifies analytical review procedure techniques into three broad categories: judgemental analytical procedure technique, simple quantitative (SQT) and advanced quantitative (AQT). Judgemental techniques apply

procedure such as scanning or comparison of two points, for example comparing sales revenue this year to previous year. Meanwhile, for the SQT using Reasonableness test, the computation usually involves non financial data which estimate an account balance. For example, estimate payroll expenses by multiplying the number of employees by the time worked and average wage rate. On the other hand, a ratio is a comparison of relationships among account balances, for example sales turnover and account receivable turnover. It uses the auditor's knowledge of relationships among accounts. The common size statement converts the amount of each account balance to a percentage of some relevant aggregate amounts such as total sales. Generally, common size income statements are more useful compare to common size balance sheet [4]. For instance, most revenue and expense accounts have a clear relationship to total sales.

The AQT usually involves Regression and Time Series which are predictive methods that systematically and mathematically provide the best fitting expectation for the available data. In the Time Series, it only takes information for particular account balances for example seasonality, special promotions that are likely to be useful predictor of sales. On the other hand, regression can include time-series properties as well as information about the relationship of sales to an index of local business activity, operating expenses and selling expenses variables [2].

Judgemental technique has been criticized as inefficient and ineffective. This technique constitutes subjective evaluation based on auditor's personal experience and knowledge of clients [5]. It just highlights only items which change significantly and fail to detect those which have not [6]. Furthermore, the ability of trend analysis (comparison of two points) to identify potential misstatement is weak since it relies on data for only a single account [7]. In [8] using 68 fraudulent companies identified from Securities and Exchange Commission (SEC) Accounting and Auditing Enforcement Releases found that ratio analysis is grossly ineffective in detecting financial statement fraud. In [9] also argues that as companies have diversified into new and complex financial structure auditing cannot be carried out in the traditional way.

Many researchers have favoured the use of AQT in analytical review procedure with various reasons. For example, it increases the effectiveness and efficiency of analytical review procedure [2,10] and improves performance of analytical review procedure [11]. In [10] assessed via simulation the effectiveness of various AR. A total of seven AR based on regression analysis were applied to two sets of simulated accounting data which were seeded with different pattern of known overstatements errors. The major findings in this study were first, regression based AR increased audit effectiveness relative to an audit strategy that did not use analytical review. Second, the use of monthly data greatly increased the effectiveness of analytical review. Third, regression based analytical review models were very efficient in detecting potentially material misstatements. In [12] carried out extensive review of the literature on applications of techniques suggested that AQT plays an important role in financial detection fraud, as it is often applied to extract and uncover the hidden truth behind very large quantities of data. Even though the uses of AQT have been highly recommended by the academicians, numerous researches have found that auditors preferred the use of SQT. In [13] found respondents preferred judgemental and SQT over AQT and the result was the strongest for the more experienced auditors. Other studies [14, 3, 5, 6] also indicated the preferences of SQT as compared to AQT technique. The most common reason noted for this preference was the cost effectiveness of judgemental and SQT [15, 16].

Therefore, the objective of this paper is to provide information on the choices of AR techniques by auditors in Malaysia. Specifically, the objectives are three-folds, namely to determine (i) relative use of different AR techniques in audit, (ii) changes in the use of AR techniques and (iii) reasons for using (or otherwise) advanced quantitative techniques.

METHODOLOGY

Sample

The subjects were practicing auditors who work in public accounting firms located in Wilayah Persekutuan, Malaysia. Wilayah Persekutuan is chosen because more than 40% of the public accounting firms in Malaysia are located in Wilayah Persekutuan. Whilst, the rest are scatterly located in other states of Malaysia. This study uses the list of public accounting firms from the website of MICPA (Malaysian Institute of Certified Public Accountants).

Prior to distributing the questionnaire to the selected respondents, the questionnaire has been pilot tested. The researchers have done the pilot testing by distributing several of the questionnaires to five colleagues and five practicing auditors. Some refinement to the questionnaires has been done afterwards in accordance with the feedback received from the pilot testing. A total of 380 questionnaires were distributed, 116 responded hence achieving a response rate of 31%.

Instruments

The questionnaire has been divided into two sections. The first section consisted of questions on the demographic profile of respondents. Whereas, the second section included questions that enable the objectives to be answered. The questions have been carefully organized based on the extensive literature review, for example, the work of [15, 5, 6, 16]. All these papers have motivated the inclusion of the questions included in the instrument. The format of the questionnaire was relatively simple with most of the questions were close-ended. Mostly, the respondents have to answer the questions by rating the alternatives on a five-point Likert-type scale.

RESULTS AND DISCUSSION

Demographic Profile

There are only 116 auditors responded to the questionnaires, a response rate of 31%. From 116 auditors who responded to the questionnaires, 50.9% from big-four companies and 49.1% from small and medium companies. Most of the respondents were junior audit staff (49.1%) followed by senior audit staff (31.9%), audit managers (12.9%) and partners (6%).

In relation to number of years in auditing, 42.2% of the respondents have worked for less than 1 year, 32.8% of respondents have audit experiences between 1 and 3 years and 13.8% of the respondents have audit experiences between 3 and 5 years. On the other hand, there were 7.8% and 3.4% of the respondents who have longer experiences in auditing, which is between 5 and 10 years and more than 10 years respectively. There were 19.8% of the respondents who have experiences in other sectors apart from external auditing and the remaining of 80.2% have no other working experience apart from external auditing.

The Relative Use of Different AR Techniques in Audits

The first objective of this study is to examine the relative use of different AR techniques. There were 8 specific techniques chosen to be included in this survey. Previous literatures have separated them into three categories, namely judgemental, SQT and sophisticated or AQT. There was only one judgmental i.e comparison of two points. There were five SQTs' which were simple reasonableness test, ratio, financial forecast, common size statement and simple time series. Lastly, there were two AQTs, which were statistical time series and regression analysis.

Table 1 shows the relative use of different AR techniques in audits. The highest means show the techniques were used more frequently compared to the lower means. Then, the means were ranked, number 1 presents the most frequently used technique, whereas number 8 presents the least used technique. The findings show comparison of two points as the most frequently used technique, followed by simple reasonableness test, ratio analysis, financial forecast, common size statements, simple time series, statistical time series and regression model analysis.

Table 1: The relative use of AR techniques in audits

Specific AP techniques in audits	Mean values	Rank
Comparison of two points	4.25	1
Simple reasonableness test	3.84	2
Ratio analysis	3.63	3
Financial forecast	3.36	4
Common size statements	3.11	5
Simple time series analysis	2.98	6
Statistical time series analysis	2.87	7
Regression model / analysis	2.71	8

Changes in Use of AR Techniques

Mode or frequency of occurrence was used in order to assess the changes in the use of AR techniques. Table 2 displays result where only respondents who have a minimum of three years of experience in auditing were included. There were 41 respondents who match that specification.

Two AR techniques demonstrate increased in use, namely ratio analysis and financial forecast. Interestingly, regression analysis was put under the category of 'never use'. Finally, other techniques namely comparison of two points, simple reasonableness test, common size statement, simple time series analysis and statistical time series analysis display unchanged use.

Table 2 : Changes in the use of AR techniques

AR Techniques	Percentage (%)	Description
Comparison of two points	41	Unchanged Use
Simple reasonableness test	41	Unchanged Use
Ratio analysis	44	Increased Use
Financial forecast	41	Increased Use
Common size statement	49	Unchanged Use
Simple time series analysis	44	Unchanged Use
Statistical time series analysis	44	Unchanged Use
Regression model	41	Never Use

Reasons of not Using AQT

Table 3 displays the results on reasons of not using the AQT. The majority of the respondents (64%) chose complex as their reason of not using AQT. On the contrary, only 12% chose expensive as the reason of not using AQT.

Table 3: Reasons of not using AQT

Reasons	Percentage (%)
Complex	64
Less value for money	17
Expensive	12

As a summary, our investigation on AR techniques in regards to the relative use, changes in use and reasons of not using produces results that show simple techniques are still preferable compared to a more sophisticated analysis. When the respondents were asked on the changes they have experienced on the use of AR techniques for the past 3 years. Most believe there were no changes in the use of AR technique. The exceptions were for SQT ratio analysis and financial forecast, where most auditors think there were increased in use. Another exception of AQT regression model, majority of auditors said that this technique has never been used. Finally, most auditors stated the complexity of the techniques as the reason why they do not use the sophisticated techniques. On the other hand, the cost of using the AR techniques was the least of their concern.

The result is consistent with previous literatures. Most of the auditors placed heavy reliance on comparison of two points and simple reasonableness tests. The uses of more advanced techniques such as regression analysis are clearly very limited. Table 4 exhibits results from the studies carried out from different countries on the techniques used by auditors. For USA, we selected [15]. In UK, we chose [5]. In Hong Kong, we took [6] and lastly in Canada, we picked [16]. Techniques which are ranked as 1, 2 and 3 are simple techniques. On the other hand, technique that is ranked last is the advanced technique. Interestingly, all these researches show least regression as the least used technique.

Table 4 : Comparison of techniques used with studies in other countries

Rank	USA [15]	UK [5]	Hong Kong [6]	Canada [16]	Malaysia (This study)
1	Comparison	Scanning	Comparisons	Scanning	Comparisons
2	Scanning	Trend	Reasonableness test	Trend analysis	Reasonableness test
3	Ratio	Ratio	Ratio	Reasonableness	Ratio
4	Trend	Reasonableness	Financial forecast	Ratio	Financial forecast
5	Regression	Regression	Common size statement	Regression	Common size statement
6	Time series		Simple time series		Simple time series
7			Statistical time series		Statistical time series
8			Regression		Regression

Complex is the key word to describe the respondents' reluctance to use AQT. In [15] has point out that AQT would require large amounts of historical data, a stable trend and familiarity with modelling. Even though computer software packages can assist in reducing cost and improving ease of use, interpreting regression result requires expertise. The auditors need to understand data transformation, multicollinearity, homoskedasticity and other technical issues associated with regressions.

CONCLUSION

Preferably, the judgemental techniques (comparison of two points) and SQT (simple reasonableness test and ratio analysis) have been increasingly used due to AQT's complexity. There is a gap between academicians and audit practitioners. Even though many articles were written by academicians on the advantages of AQT and disadvantageous of judgemental techniques, the auditors still choose the latter. Further studies on filling such a gap through observations on its uses of techniques with the exercise of judgement by auditors is required. As for classroom coverage of sophisticated AR techniques, the findings may perhaps imply two contrasting recommendations. The first recommendation is smaller coverage because they are not widely used in practice. Second recommendation is to increase coverage in order to reduce complexity and encourage higher usage of these techniques in the future.

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