

Competitive Advantages of Audit Firms in the Era of International Financial Reporting Standards: An Analysis using the Resource-Based View of the Firm

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Abstract— The present study attempts to gain in-depth insights into the impact of the implementation of IFRS on the competitive advantage of audit firms of diverse size in an emerging economy, namely Malaysia, and to evaluate the capabilities of these audit firms to audit IFRS-compliant financial statements by examining eight audit firms in such an environment using Resource-Based View of the Firm. Data were collected using content analysis and semi structured interview. Our analysis shows that resources are being capitalized on in different ways by audit firms of diverse sizes in order to establish themselves in niche markets and thus, sustain a competitive advantage. Implications of the study are then discussed.

Keywords—competitive advantage, resources, audit, IFRS

I. INTRODUCTION

The efforts of the International Accounting Standard Board (IASB) to develop and promote a single set of high quality accounting standards for international financial reporting have gained great momentum with the notable increase in the number of countries adopting International Financial Reporting Standards (IFRS) worldwide. However, the adoption of the highest quality reporting standards will be valueless if compliance among the adopting companies is poor [1, 2]. In the preparation of general purpose financial statements, the independent audit is one of the first-line mechanisms to enforce compliance with the accounting standards [3]. Increased worldwide acceptance and implementation of IFRS thus impact significantly on the audit profession as the capability of auditors in handling IFRSs is critical in determining audit quality.

In the conventional accounting literature, the audit industry is characterized by a dual market structure: the Big 4 represent large audit firms and are a proxy for high quality audit [1, 4, 5] in contrast to a large number of small audit firms [6]. In the era of IFRS, it is argued that the Big 4 have an advantage over other audit firms due to their technical expertise, global reach and abundant resources [7]. The readiness of medium-sized and small audit firms to handle IFRS, on the other hand, could determine their future market position in the audit industry.

The present study attempts to gain in-depth insights into the impact of the implementation of IFRS on the competitive advantage of audit firms of diverse size in an emerging economy, namely Malaysia, and to evaluate the capabilities of these audit firms to audit IFRS-compliant financial

statements by examining eight audit firms in such an environment.

The case of Malaysia is of particular interest and relevance as the efforts to converge with IFRS by the Malaysian regulators eventually led to the introduction of a two-tier financial reporting structure in the country. With effect from January 1, 2006, it has been mandatory for non-private entities to comply with the Financial Reporting Standards (FRSs) which are modeled on IFRS effective on or before 1 January 2006. On the other hand, private entities¹ are given the alternative option of applying Private Entity Reporting Standards (PERS) which are modeled on those IASs effective before 2000.

Consequently, an immediate impact of such development on the audit profession is the need for audit staff to be competent in performing both PERS and IFRS-compliant audits. This means additional pressure on the audit firms especially those that are already struggling because of constraints on resources. It is expected that this will impact differently on audit firms of diverse size due to market segmentation which is observed in the Malaysian audit environment.

II. FULL CONVERGENCE WITH IFRS: THE MALAYSIAN CONTEXT

The Malaysian Accounting Standards Board (MASB), as the standards setting body, is committed to full convergence with IFRSs with effect from 1 January 2012. It is estimated that approximately one thousand public listed companies and 20,000 subsidiary and associate companies will be affected by full IFRS compliance [8]. In view of the rigorous requirements of the standards under a global accounting regime and the vast amount of information to be absorbed, companies are urged to assess their state of readiness by examining their existing reporting infrastructure, systems, human skills and financial resources [9] and make provision for additional financial commitments [8].

¹ In Malaysia, a private entity is defined as a private company incorporated under the Companies Act 1965 that is not itself required to prepare or lodge any financial statements under any law administered by the Securities Commission or Central Bank and is not a subsidiary or associate of or jointly controlled by, an entity which is required to prepare or lodge any financial statements under any law administered by the Securities Commission of the Central Bank.

As the forefront mechanism for enforcing compliance with approved accounting standards, the building of a new set of skills among audit staff, and the availability of relevant resources are crucial in ensuring that the whole set of IFRS is adequately handled. Previous studies have shown that information technology (IT) has significantly changed the audit process and played an important role in determining the effectiveness and efficiency of audit services [10-13].

In Malaysia, non-Big 4 audit firms are also extensively engaged in the statutory audit of listed companies. This suggests that implementation of IFRS has important implications for smaller audit firms as well. To gain further insights into the readiness of audit firms of diverse size to audit IFRS-compliant financial statements, the present study attempts to draw on the resource-based view of a firm to examine i) the variations among audit firms of diverse size in terms of their resources and ii) how resources controlled by different audit firms equip them in sustaining their competitive advantage in response to new challenges triggered by the implementation of IFRSs. In particular, the following questions will be explored:

- 1) How audit firms of diverse size vary in terms of resources that provide competitive advantage to individual firms
- 2) Whether resources and capabilities of audit firms enable them to respond to the environmental threats and opportunities that have resulted from implementation of IFRS

III. THEORETICAL FRAMEWORK AND RESEARCH METHODS

A. Resource-Based View of the Firm (RBV)

Building upon the argument that the competitive advantage or success of a firm is largely determined by the resources it controls, the RBV of a firm has gradually gained considerable interest among scholars. Barney [14] introduced a theoretical framework of RBV based on the assumptions that resources are heterogeneously distributed among firms and imperfectly mobile. The framework prescribes value, being rare, imperfectly imitable and non-substitutable as the four criteria of resources which enable a firm to gain a sustainable competitive advantage. The model, however, has been criticized for failing to explain the process through which a firm can achieve its competition advantage. Following which, Barney [15] attempted to revise the framework and emphasized that a firm also needed to be organized in such a way that it could exploit the full potential of its resources in order to attain competitive advantage.

The application of the RBV to the audit industry has been demonstrated by Maijoor and Witteloostuijn [6] who examined the Dutch audit industry. Under the RBV, a resource must first be valuable and scarce to have a rent-producing potential. This is attained through the imperfection of the product market for audit services created from the regulatory requirements which generate consistent demand in the market. At the same time, regulations also make the resources imperfectly imitable and imperfectly substitutable

by outside firms as the barriers of entry to restrict entrants from related or unrelated industries.

In the context of Malaysia, the statutory requirements, in particular, the Companies Act, 1965 which mandates all companies to submit annual audited accounts, create a consistent demand for the production of audit services. On the supply side, only chartered accountants registered with the Malaysian Institute of Accountants (MIA) who have valid practicing certificate are allowed to set up firms to provide public practice services under the Accountants Act, 1967. Both conditions set a platform for audit firms of diverse size to have a presence in the audit industry.

In line with the nature of auditing activities and requirements, the present study follows Newbert [16] and classifies resources into five major categories for the purposes of data collection and analysis namely, financial resources, human resources, intellectual resources, organisational resources and physical resources.

B. Data Collection

A content analysis was first conducted from the websites of each of the sample audit firms with the aim of collecting data about the background and characteristics of the audit firms as well as resources available to the firms. Then, semi-structured interviews were conducted with the audit partners/managers of eight audit firms located in northern Malaysia. Audit firms of different sizes and ownership characteristics were selected to provide rich data for cross-case analysis. The interviews were based on a list of questions prepared by the researchers. To ensure consistency and reliability, standard interview guides were used for the interviews [17].

IV. DISCUSSIONS

An analysis of the characteristics of the sample firms is shown in Table 1. The sample firms are labeled as Firm A to Firm H. Based on the number of employees, Firms A and B are considered small audit firms while Firms C, D, E and F are classified as medium-sized audit firms and Firms G and H represent big audit firms. Analysis in terms of clientele shows that firms A and B concentrate on clients from small and medium enterprises (SMEs). On the other hand, Firms G and H only serve medium to big corporations while Firms C, D, E and F cater for both small companies as well as big corporations.

TABLE I. CHARACTERISTICS OF THE SAMPLE FIRMS

Sample Firms	A	B	C	D	E	F	G	H
Firm size	small		Medium size			Large		
Number of employees	Less than 50 employees		100 to 300 employees			More than 1500 employees		
Ownership structure	Sole proprietor		Partnerships			Partnerships		
Clientele	SMEs		SMEs and big corporations			Medium size firms, MNCs and listed firms		

Years of operation	Less than 10 years	More than 20 years	More than 50 years
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A. Physical Resources

Firms A, B, C, D and E use Microsoft Office as the main software to perform their audit tasks. Microsoft Word and Excel templates are widely used to prepare complicated schedules, to perform complex computations and repetitive tasks, to replace hand-written audit working paper and to generate financial statements and reports. The templates are designed by the audit staff themselves and integrated working papers are generated using the templates created by Excel. The hard copies of the working papers are still printed for review by a superior/partner. All the offices have their own servers for database management, networking within the firm and sharing of data among the work groups. The manager of Firm B pointed out that IT is essential in the production of audit services as the use of computers does increase the level of efficiency.

Based on the above observations, it is suggested that generic computer software and basic IT facilities used by firms A, B, C, D and E in the production of audit services do not provide the competitive advantage for these firms to compete in the markets, as suggested by the resource-based view of firms. The size of the firms also indicates that these firms do not possess the economy of scale to acquire sophisticated computer infrastructure and IT.

B. Intellectual Resources

Firms F, G and H use proprietary in-house software developed by their international HQs. These globally developed audit support systems are then tailored to achieve compliance with country-specific standards. A significant financial contribution is required of each local practice entity in funding the continuous development of the various types of proprietary in-house software. In addition, each branch office has at least one internal full-time IT employee with computer-troubleshooting capabilities to take care of the technical aspects of computer hardware and software.

Firm H revealed that they have two sets of audit software in each of their offices which are used depending on the size of clients. In addition, for the listed companies and MNCs that make up the majority of the clients of these audit firms, the use of commercially produced computer-assisted audit techniques (CAATs) is also common. As such, these firms use audit software to assess the client's accounting systems and to obtain audit evidence. These firms are well on track towards creating paperless auditing. The proprietary in-house software employed by firms F, G and H meets those criteria of not being perfectly imitable and substitutable, hence providing competitive advantage to these firms.

C. Human Resources

Staff training provided by Firm G and H is formal and well structured. It is standard practice among the firms to require all staff to attain a specified number of hours of continuing professional education (CPE hours) annually. These CPE hours are also recognized by national and international professional bodies for Continuing Professional

Development (CPD) requirements. The number of hours to be attained is captured and closely monitored by the information system of the firm. It is also used for performance appraisal and forms part of the promotion criteria. As noted by Firm G, a new staff needs to pass 7 e-learning tests in order to be confirmed or promoted as a permanent member of staff. As such, staff in both Firms G and H are regularly trained and equipped to handle the latest updates on accounting standards which at the same time maintains the international reputation of these firms. Online training is widely used with a wide range of training materials available on the web. IT training forms an important aspect of the training of staff and the firms use in-house software developed by their international partners. The staff is also trained on using audit software on client's accounting systems using such software as Oracle, JD Edward and ERP. As such, the staff in these firms receives more exposure to technology and greater professional development compared to staff working in the other 6 audit firms sampled in this study.

For Firm A, all the training is conducted at its own premises by the owner himself and none of the staff is pursuing a professional qualifications. For Firms B, C and D, audit staff needs to refer to a more experienced person for assistance whenever they encounter problems with the use of electronic work papers or software. The training is informal and hands-on. Formal training sessions are usually only held upon the release of new accounting standards. For Firm F, the international head office (HQ) does specify minimum requirements for CPE. However, the number of hours to be fulfilled is ultimately determined by the local HQ.

In terms of staff recruitment, some obvious differences were observed among these firms. Firms G and H being Big 4 practice entities pay new recruits who are university graduates a starting salary which is between twenty and forty percent more than medium sized firms. On the other hand, medium sized firms pay a twenty to thirty percent premium as compared to small audit firms. In addition, Big 4 firms impose more stringent selection criteria in their recruitment of fresh graduates. Basically, only graduates who have performed well in university and achieved at least a CGPA of 3.5 points/4 are shortlisted for a job interview.

D. Financial Resources

As a sole proprietorship, the capital available to Firms A and B is limited. Firms G and H demonstrated the strongest financial resources, the amount varying according to the number of partners. Firm A and B rely solely on clients that are private limited companies and SMEs to generate audit revenues. With regards to audit fees charged to clients, Firm A indicated that the markets for small audit firms was very competitive and the fees charged by the firm were much lower compared to medium-sized audit firms or Big 4 Firms. Firm A also revealed that the major operating cost of the firm was staff costs while the investment in IT was minimal resulting in lower costs. Such a policy allows the firm to maintain low audit fees and to sustain their clients. The manager of Firm E indicated that as a mid-size firm, the fees that the firm charged are higher as compared to small audit

firms but much lower than those charged by the Big4 Firms. A partner in Firm G, on the other hand, revealed that they do not service small firms as these firms could not afford the fees they charged. The partner added that they had to charge a premium on the fees as they incurred a heavy investment to sustain their quality. He also stated that their firm was not auditing small clients as it was not economically feasible for the Big4 firms to serve this market. These small firms cannot afford the fees charged by the Big4 Firms.

E. Organizational Resources

All of the eight audit firms have established websites. As noted in the content analysis, a website is widely used by firms as a means of introducing the firm to prospective clients on the range of services available. As stated by a manager of Firm A, the purpose of the website is to create awareness among potential users and clients with regards to the existence, location, contact details and services provided by the firm. In addition, it is also widely used as a means of job recruitment by enabling prospective employees to submit job applications for advertised vacancies on-line. Websites are also used to advertise the specialized services available to specific industries in the case of Firms G and H.

All the staff in the sample firms has access to the Internet. The Internet is mainly used by staff to research resources relevant to their work. Staff uses email to communicate with clients and some files are sent via email. Email is also used to send files to partners in other offices for review. Staff of Firms G and H is expected to use web browsing for the latest updates on accounting and auditing standards, as well as for continuing education through e-learning and webcasts. A large variety of in-house resources can be accessed by staff through the Intranet. All the staff in Firms G and H is assigned their own intra-firm e-mail account.

Five of the audit firms have established international affiliations to widen their networking with other audit firms worldwide. Firms F, G and H have a highly structured network in which all member firms are required to apply standardized audit methodology developed for the group. Brand name reputation and potential to share information and expertise are the main reasons for these firms establishing international affiliations. A manager of Firm E expects that while more firms will continue to seek international affiliations in the future, currently member firms of the group still want to retain autonomy in deciding on their own audit procedures. At present, the nature of the relationship is mainly in the sharing of resources such as expertise and new knowledge as well as sharing clients who operate in different locations.

Firm C is a member of an international association of independent auditing, accounting and consulting firms. As a member, Firm C has to pay an annual fee to the association. As noted by the partner, the purpose is to stay connected with other audit firms internationally so that they are exposed to diverse business practices in other parts of the world.

Firm A, B and D tend to focus on local networking. Possibly due to the smaller size of their operations, these

firms seek to build networking and relationships with other local firms, prior to deciding to join international practice entities or affiliations. Firms A and D have attempted to widen their networks by establishing linkages with service providers from other disciplines such as management consultants, taxation, accounting and secretarial services. According to a manager of Firm D, such linkages serve as a source of new clients. Firm B is joining a locally established group of firms offering audit and assurance, tax and consultancy services.

F. Analysis of Competitive Advantages

The above analysis shows that resources are being capitalized on in different ways by audit firms of diverse sizes in order to establish themselves in niche markets and thus, sustain a competitive advantage.

In particular, small audit firms, due to their size and limited access to capital, have attempted to gain market share by charging clients the lowest audit fees possible. This is made possible by capitalizing on a combination of resources that allow the firms to minimize their operating costs. These firms thus invest in generic IT system that cost less, pay relatively lower salaries as compared to bigger audit firms and focus on the establishment of local networks from related disciplines to assist in getting more clients. As noted by a manager from Firm A, the largest cost element to the firm is staff costs.

Meanwhile, mid-sized firms with a larger pool of professional expertise as compared to small audit firms are able to serve small companies as well as to tap the market for bigger companies. The analysis shows that these firms were able to reduce their operating costs by investing less in certain resources as compared to Big4 Firms. On the other hand, these mid-sized audit firms offer more attractive remuneration as compared to small audit firms and provide more opportunities for career advancement due to the availability of more job positions. According to the manager of Firm E, the opportunity of becoming a partner is also higher for some mid-sized firms as compared to the Big4 Firms.

On the other hand, because of their size and ability to enjoy certain economies of scale, Big 4 firms are in a position to provide the full range of services to the larger commercial firms. One of the important factors in attracting large clients is the existence of the international audit firm network that is highly organized among these firms. As noted by [1], the existence of international audit networks among the large international firms allows these firms to build their audit capabilities rapidly by transferring audit technology and key personnel to affiliated firms. In addition, these firms also possess advantages over domestic audit firms in that they have access to global industry specialists who provide competitive advantages in terms of vast knowledge about various business practices in diverse environments, exceptional brand image, vigorous audit methodology and processes, highly-skilled and knowledgeable professional staff, expertise developed from handling clients in numerous locations and the capability of developing industry training and protocols [1]. When audit

firms become industry specialists, barriers to entry into the audit market increases [1, 18]. In summary, different combinations of resources controlled by audit firms of diverse sizes have allowed them to gain a competitive advantage and to ensure their continued existence in the audit industry.

Following the implementation of IFRS in 2006, all non-private entities are required to comply with international standards. On the other hand, most private entities have opted to apply PERS due to their relative simplicity. This two-tier reporting system impacts differently on audit firms of diverse size and has important implications for the competitive advantage of individual audit firms.

Specifically, the breadth and volume of knowledge and expertise required to ensure compliance with IFRS place an enormous responsibility on audit professionals to build up and continuously upgrade the capacity of their firms to remain competitive in the changing audit environment. However, such needs vary among audit firms depending on their size and target market sectors.

The impact of IFRS implementation is most strongly felt by medium-sized audit firms. From the analysis, these firms can be seen to serve a mixture of clients in terms of size. The bigger clients of these firms comprise listed companies and multinational corporations. At the same time, SMEs also contribute a significant portion of their audit revenues. Growth of these firms rests on the ability of the audit firm to get larger clients.

To sustain their competitiveness and continue to serve large clients who are adopting IFRS, these firms must ensure that they have the capacity to audit IFRS-compliant financial statements. As the 2012 dateline for full adoption of IFRS approaches, there is an urgent need for these firms to prepare for the challenge. As commented by the manager of Firm F, "We have no choice, but to grow in order to ensure the survival of our business. Small audit firms will no longer have the technical expertise to handle bigger clients. Training is much needed to keep pace with the rapid growth in the publication and application of new accounting standards."

As noted earlier, the majority of the companies registered in Malaysia are private limited companies which are relatively small in size. Because of the normal demand for the statutory audit by SMEs and PERS a popular option available to all SMEs, small audit firms will continue to be the main audit service providers for SMEs. As most SMEs only prepare basic forms of financial statements and are highly sensitive to costs, the competitive advantages of small audit firms will depend to a large extent on an audit firm's ability to continue to charge low fees to this niche market. In conclusion, the market position of small audit firms is unlikely to be threatened by the implementation of IFRSs: it remains cost effective for small client companies to apply PERS in their statutory audit rather than FRS and small audit firms are in a position to deliver this service.

It is evident from the analysis that the abundant resources possessed by Big4 audit firms in terms of information technology, staff training and development, global networking provide them with the competitive advantage to

respond to the challenges brought about because of the implementation of IFRSs.

V. IMPLICATIONS OF THE STUDY

Our analysis shows that small audit firms are able to concentrate solely on the companies that are complying with PERS in order to generate audit revenue. This is possible because of the statutory audit required to be undertaken by all companies including small companies which in turn creates a huge market for small audit firms. As such, there will be no particular need for these small audit firms to supply their services to firms that need to apply FRS, at least in the short term. However, in the longer run, this may have serious implications for such small audit firms. As companies grow and need to switch to FRSs, small audit firms that do not have the necessary expertise or have neglected to develop this expertise may lose these clients. In other words, they may only be equipped to service small clients and consequently the growth of such audit firms will probably be severely restricted.

At the same time, audit staff who work in small audit firms will not have the opportunity to perform IFRS audits and this will affect their career advancement prospects and limit their ability to be able to move as experienced staff to larger firms. In the long run, small audit firms may not be able to attract good candidates for entry-level employment.

Within the IFRS regime, the growing complexity of many IFRSs and the number of new or revised standards being released place a heavy demand on the audit workforce, both in terms of understanding and evaluating the application of the standards. For audit staff to be able to perform efficiently and effectively, continuing education and training are crucial. It is suggested that staff training can no longer be left to chance but has to be organized and carried out by dedicated training staff that has the necessary knowledge and expertise. As noted by Hodgdon et al. (2009), building capacity which includes systems, methodologies, application guidance, training and education requires a major commitment and investment in terms of time and money.

Our analysis suggests that many existing small audit firms basically lack the economies of scale to develop the required IT infrastructure, to upgrade systems as well as to train staff to be fully IFRS-literate. It is probably inevitable, therefore, that further growth (of small audit firms) in terms of being able to service larger clients as well as maintain sufficient small clients will involve mergers among small audit firms in the industry.

Finally, we would like to suggest a larger sample be examined in the future in order to be able to survey more audit firms and thus increase the ability to generalize the findings.

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REFERENCES

- [1] Carson, E., *Industry Specialization by Global Audit Firm Networks*. The Accounting Review, 2009. **84**(2): p. 355-382.
- [2] Hope, O.K., *Disclosure practices, enforcement of accounting standards, and analyst' forecast accuracy: An international study*. Journal of Accounting Research, 2003. **41**(2): p. 235-273.
- [3] Hodgdon, C., et al., *Compliance with International Financial Reporting Standards and Auditor Choice: New Evidence on the Importance of the Statutory Audit*. The International Journal of Accounting, 2009. **44**: p. 33-55.
- [4] Benston, G.J., *The market for public accounting services: demand, supply and regulation*. Journal of Accounting and Public Policy, 1985. **4**: p. 33-79.
- [5] DeAngelo, L.E., *Auditor size and audit quality*. Journal of Accounting and Economics, 1981. **3**: p. 183-199.
- [6] Maijoor, S. and A.V. Witteloostuijn, *An empirical test of the resource-based theory: strategic regulation in the Dutch audit industry*. Strategic Management Journal 1996. **17**: p. 549-569.
- [7] (10 Oct 2005) *Convergence with IFRS: Implications for Auditors*. The Edge **Volume**,
- [8] Zain, N. *Deloitte Insight: IFRS implementation draws nearer*. 2009 [cited 2010 10 Feb.]; Available from: http://www.deloitte.com/print/en_MY/my/mysvc/myaud/article/6b49890264d82210VgnVCM100000ba42f00aRCRD.htm.
- [9] *Full Convergence with IFRS in 2012*, in *Accountants Today*. 2008. p. 22-23.
- [10] Fischer, M.J., *"Real-izing" The Benefits of New Technologies as a Source of Audit Evidence: An Interpretive Field Study*. Accounting, Organizations and Society, 1996. **21**(2/3): p. 219-242.
- [11] Janvrin, D., J. Bierstaker, and D.J. Lowe, *An Examination of Audit Information Technology Use and Perceived Importance*. Accounting Horizon, 2008. **22**(1): p. 1-21.
- [12] Dowling, C. and S.A. Leech, *Audit Support Systems and Decision Aids: Current Practices and Opportunities for Future Research* International Journal of Accounting Information Systems, 2007. **8**: p. 92-116.
- [13] Banker, R.D., C. H. and Y. Kao, *Impact of Information Technology on Public Accounting Firm Productivity*. Journal of Information Systems, 2002. **16**(2): p. 209-222.
- [14] Barney, J., *Firm Resources and Sustained Competitive advantage*. Journal of Management, 1991. **17**(1): p. 99-120.
- [15] Barney, J., *Gaining and Sustaining Competitive Advantage*. 1997: Addison-Wesley: Reading MA.
- [16] Newbert, S.L., *Value, Rareness, Competitive Advantage and Performance: A Conceptual-level Empirical Investigation of the Resource-Based View of the Firm*. Strategic Management Journal, 2008. **29**: p. 745-768.
- [17] Iacovou, C.L., I. Benbasat, and A.S. Dexter, *Electronic data interchange and small organizations: Adoption and impact of technology*. MIS Quarterly, 1995. **19**(4): p. 465-485.
- [18] Danos, P., J.W. Eichenseher, and D.L. Holt, *Specialized knowledge and its communication in auditing*. Contemporary Accounting Research, 1989. **6**(1): p. 91-109.