Full Length Research Paper

Reporting practices of Malaysian public universities: The extent of accountability disclosure

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Accepted 28 January, 2011

The study intends to evaluate the extent to which Malaysian public universities disclose accountability information in their annual report and on their website. It also compares the degree of annual report and website disclosure between established and new universities in Malaysia. Content analysis was undertaken using the disclosure index that was developed based on the items listed in the Malaysian Government Treasury Circular (MGTC) 4/2007 and selected items from the Modified Accountability Disclosure (MAD) index. Mean disclosure index was computed to examine the disclosure levels. There is evidence that Malaysian public universities have to some extent disclosed relevant information in their annual report but the level of information published on the website is considered very low. Additionally, established universities' group is better off in terms of information disclosure for both channels of communication. The number of universities that participated in the analysis is relatively small, and the study mainly considers the extent of disclosure but not the quality of the information disclosed. Greater enforcement from the government is required to ensure greater disclosure of information in the universities' annual report and on the website. This study offers some insights into the current reporting practices of Malaysian public universities using two reporting mediums, the annual report and website.

Key words: Annual report, website, accountability, public universities, Malaysia.

INTRODUCTION

Since the establishment of the first public university in Malaysia, the government has been constantly providing a large portion of public funds to higher education institutions (HEIs) for the operating activities and development projects. In particular, almost 90 percent of the funds required for public higher education were received from the government. In the 2009 budget, a total amount of RM 14.1 billion has been budgeted for the Ministry of Higher Education (MOHE), and RM 8 billion of this amount has been allocated specifically for the use by public higher education institutions (Malaysian Treasury, 2009).

Being the receiver of a large amount of public funds, public higher education institutions are held accountable to make known to the public the way they utilize those funds. One of the channels to relay information to the public on the performance of public universities in utilizing the public resources is via annual report. Public sector institutions' annual report, which is referred to by Parker (1982) as a mass medium of communication, is also a means of discharging government bodies' accountability to the public (Boyne and Law, 1991; Patton, 1992). As there are numerous stakeholders to whom public universities are held accountable, including parliament, ministry, existing and future students, parents, and public at large. Hence, delivering relevant information via the annual report is crucial.

Beside the annual report, with the advent of the Internet, an alternative communication medium, website, has also become well-accepted and widely used in conveying information and discharging accountability to various stakeholders to whom public universities are held accountable. In fact, website is a convenient and efficient means of communication not only from the provider's perspective but also for the users (Fisher et al., 2004;

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Lymer and Debreceny, 2003).

Although there have been numerous attempts to investigate the extent of annual report disclosure by universities in developed countries (Gray and Haslam, 1990; Dixon et al., 1991; Coy et al., 1993; Bank and Nelson, 1994; Nelson et al., 1997), there has been little evidence to date on annual report disclosure practices of public universities in Malaysia. Hence, this present study aims at assessing the accountability of public universities in Malaysia in terms of their reporting practices in the annual report. Furthermore, prior studies on website disclosure were mostly focused on private sector companies (Ashbaugh et al., 1999; Trabelsi and Labelle, 2006), and to the knowledge of the researchers, there were limited studies that looked at public sector organizations particularly on public universities. Due to the lack of research on website disclosure by public organizations, this study attempts to also examine the level of information disclosure on public universities' websites. Specifically, there are three main objectives of this study:

- 1. To examine the extent of public universities' annual report disclosure, based on the Malaysian Government Treasury Circular (MGTC) No. 4/2007 and selected accountability information items proposed by Coy et al. (1993) in the Modified Accountability Disclosure (MAD);
- 2. To assess the level of disclosure of information items in objective 1 above on the public universities' websites; and
- 3. To compare the degree of disclosure of (1) and (2) above between established universities and new universities.

The unique contribution of this study is that it evaluates the extent to which public universities disclose relevant accountability information using two important communication mediums – the traditional mode of using annual report and the alternative mode of using a website. In addition, the disclosure index list used in this current study is based on the government guidelines on the minimum disclosure requirements in preparing the annual report, as outlined in the MGTC 4/2007, as well as several items from the MAD that are not being presently included in the guidelines. Our index provides a more complete picture on the reporting practices of Malaysian public universities than the MGTC or MAD alone.

Public sector accountability and agency theory

Accountability is a paramount concept in public sector because it ensures that public resources are used to provide services to the society. Over the past decade, concerns have been raised about the accountability of public sector organizations. The public sector is considered to be part of the economy, which is traditionally managed and controlled by the government on behalf

of the citizen (Shim and Seigal, 1995). The government, therefore, makes decisions on the use of, and is responsible for the consumption of, public resources to improve the welfare of the citizen (Jones and Pendlebury, 1992). Accountability refers to the requirement to be answerable for one's conduct and fulfillment of responsibilities (Rutherford, 1983). According to Rauf et al. (2003), accountability is the duty of public officials to report their actions to the public and the rights of the citizens to take actions against those officials whose conduct is unsatisfactory. This is consistent with the view of agency theory, which defines the relationship between two parties under which one party (principal) engages another party (agent) to perform services on their behalf (McColgan, 2001).

Laughlin (1990) illustrated an accountability model, which presumes the existence of one party that allocates responsibility and another party that accepts it with undertaking to account for and to report on the manner in which it has been carried out. According to the model, the accountee (principal) gives power over the resources to the accountor, whilst the accountor (agent) is supposed to take action in managing the resources and trusts in a manner that meets the objectives and desires of the principal, by giving him or her sufficient information about the decisions taken by the agent (Laughlin, 1990). Accordingly, good reporting practices of public sector organizations, which traditionally refers to the annual report, is a vital process of discharging accountability (Connolly and Hyndman, 2004).

LITERATURE REVIEW

Accountability information disclosure in the annual report

Annual report has been widely recognized as a medium for governmental entities to discharge their accountability in administrating public resources (Tayib et al., 1999; Coy et al., 2001; Hooks et al., 2002; Guthrie et al., 2003; Steccolini, 2004). Despite this important role of the annual report, prior studies have highlighted at least two factors that hinder the accountability role of this publication; they are inaccessibility of the annual report to the public (Priest et al., 1999) and irrelevant information disclosed in the annual report (Jones et al., 2005). In response to the weaknesses of the annual report's role, a number of prior studies have attempted to examine the extent of disclosure practices of various government entities such as local government (Robbins and Austin, 1986; Boyne and Law, 1999; Ryan et al., 2002), state government, as well as federal government, which includes statutory bodies such as universities (Gray and Haslam, 1990; Dixon et al., 1991; Coy et al., 1993; Bank and Nelson, 1994; Nelson et al., 1997). The annual report disclosure practice of the latter public entity (that is, university) is relevant to this present study.

Since the early 1990s, there has been a steady growth of research, conducted by researchers in developed countries, on different aspects of universities' annual report disclosure practices. In the UK, Gray and Haslam (1990) attempted to examine the changes in the British universities' reporting practices over a period of five years and reported that whilst there were several significant changes in the disclosure level of financial information; changes in the non-financial information disclosure were minimal.

In the following year, Dixon et al. (1991) investigated the disclosure level of annual reports of universities and polytechnics in New Zealand over the period 1985 to 1990 and found significant improvement in the level of disclosure over the six-year period. Nevertheless, similar to Gray and Haslam (1990), Dixon et al. (1991) were of the opinion that greater level of qualitative information could be introduced in the annual report. Unlike earlier studies that mainly investigated the extent of disclosure. Coy et al. (1993) extended the research scope by also measuring the quality of disclosure. The study examined the disclosure practice of 33 universities in New Zealand from 1985 to 1990 using a weighted disclosure index, known as Modified Accountability Disclosure (MAD) Index, which the researchers developed and that was later being adopted by a number of studies globally. The result of the weighted disclosure index was then compared with the result of a dichotomous index, and the researchers found that the weighted disclosure index score is lower than the unweighted score.

In Canada, Bank and Nelson (1994) investigated the disclosure level of Ontario universities over a six-year period and reported unsatisfactory result of the universities' annual report disclosure level. Adopting the MAD proposed by Coy et al. (1993), another longitudinal study for a period from 1992 to 1994 by Bank et al. (1997) made international comparison on the extent of annual report disclosure by universities from England, Wales, and Northern Ireland (EWNI), New Zealand, and Canada. The study revealed that New Zealand universities disclosed the highest level of information while the Ontario universities disclosed the least information. Bank et al. (1997) who also grouped the universities into established and new universities claimed to have found that established universities produced a better quality of disclosure compared with new universities, particularly on the overall performance and financial performance.

Accountability information disclosure on the website

In this modern and fast-growing technology world, the use of the Internet as a channel for dissemination of information is well-established and globally accepted (Fisher et al., 2004; Lymer and Debreceny, 2003). Fisher et al. (2004) claim that annual reports and other information published on websites provide companies with a better

opportunity to improve communication of information to users, relative to traditional print media, as it can be attractively presented by utilising an array of multimedia features. Moreover, Internet reporting has the benefits of lower cost, wider reach, and faster reach to the users or audiences (Debreceny et al., 2002).

A number of past studies have examined the use of Internet reporting or websites in relaying information to the users, with particular attention to private sector companies. Ashbaugh, Johnstone, and Warfield (1999) conducted a survey to identify the usefulness of Internet on firms that disclosed financial reporting on the Internet. Their study suggested that the Internet is an effective communication mode to complement the use of the traditional print medium of reporting. More importantly, Internet tools such as web browsers allow users to search for specific information rather than having to read an extensive number of pages in search for relevant information. In addition, with the help of hyperlinks, users could follow up on the information disclosed to get more information on the Internet, which could assist them with decision making. The limited prior research on the disclosure of information on website includes a study by Trabelsi and Labelle (2006) who attempted to compare the extent of information disclosed in the traditional medium of the printed annual report with the information on the corporate website. Based on their content analysis, the researchers contended that companies in Canada publish additional information on their website.

METHODOLOGY

Sample

Initially, a letter was sent to all 20 public universities in Malaysia, requesting their 2007 annual report. The annual report is public document; nevertheless, after several attempts and follow-ups via email and phone, only 11 universities responded and provided their 2007 annual report. By right, all public universities have to submit a copy of their audited annual report to the responsible ministry, that is, the Ministry of Higher Education (MOHE). However, when the researchers checked with the office of MOHE, only 10 universities submitted their 2007 audited annual report, and the 10 universities were among the 11 universities that have supplied the annual report to the researchers. Hence, the analysis of disclosure covers only these 11 universities.

Content analysis

The study intends to examine the extent of accountability information being disclosed by Malaysian public universities in their annual report and on their website. For this reason, the content analysis of universities' disclosure was conducted using a disclosure index based on two main sources: 1) the MGTC No. 4/2007, the circular on the preparation and presentation of the annual reports and financial statements of statutory bodies, including public universities; and 2) selected items from the disclosure index on accountability information disclosure outlined by Coy et al. (1993), that is, the Modified Accountability Disclosure (MAD) index.

Category	Number of Item	N	Mean (Annual Report)	Mean (Website)
Corporate information	9	11	0.7172	0.616
Background of the university	3	11	0.8485	0.636
Chairman report	7	11	0.7273	0. 312
Report on government assistance	3	11	0.5758	0
Financial performance analysis	7	11	0.8052	0
Performance analysis	10	11	0.5909	0.373
Financial statements	7	11	1	0
Overall	46	11	0.752	0.264

Table 1. MGTC 4/2007 – Overall Mean Index Score by Category for Annual Report and Website Disclosure.

MGTC 4/2007 Disclosure Index

Based on the circular, a total of 46 disclosure items are considered necessary to be disclosed by public sector service-oriented organizations, including universities. These 46 disclosure items are grouped into seven categories, namely corporate information, background, chairman statement, report on government assistance received, analysis of financial performance, analysis of non-financial performance, and financial statements. As the study aims at assessing the extent of information disclosure based on the minimum disclosure requirements outlined in the MGTC 4/2007 in preparing the annual report, all 46 disclosure items are considered in this study.

Modified Accountability Disclosure (MAD) Index

The items chosen by Coy et al. (1993) for their Modified Accountability Disclosure index were determined through a comprehensive review of the accountability literature for universities and review of universities' annual reports. The MAD index comprises 26 items that are grouped into four categories: overview, service performance, financial performance, and physical and financial condition. For the purpose of this study, only 11 out of the 26 MAD items are considered, as a number of items in the MAD index are already part of the MGTC 4/2007 disclosure items. This is to avoid double assessment of similar accountability information. As a result, there are in total 57 disclosure items used in this study to examine the accountability level of public universities in Malaysia.

Since this study intends to assess the extent of information disclosed in the annual report and on the website of public universities and does not intend to focus on any user group of the universities' annual report, an equal weighting is given to each item, and a dichotomous scoring index is used where one point is awarded to a university for disclosing an item and zero for not disclosing an item (Cooke, 1989; Dixon et al., 1991). This is done because different users of information have inclination to different disclosure items, and the approach here is to minimize and average out the different values perceived by different user groups with regard to each disclosure item.

The review of each university's annual report and website to identify the disclosure of each item under the finalised disclosure index list was carried out independently by two trained researchers. The outcomes from each researcher were then compared, and any differences in the result were closely looked at by revisiting the annual report or the website to determine whether the items were actually disclosed.

A disclosure index (DI) was then calculated to measure the relative level of disclosure of each university. The DI is the total number of items that were actually disclosed divided by the total number of items. Based on Cooke (1989), the total disclosure (TD) score is mathematically expressed as follows:

 $TD = \sum d_i$

where TD is total disclosure for a university; d = 1, if the item d_i is disclosed; and d = 0, if the item d_i is not disclosed.

The DI for each university is equal to TD/n, where n= the number of items. To examine the overall sample disclosure level, the mean disclosure index was calculated based on the disclosure index of 11 universities.

To further evaluate the level of information disclosed by Malaysian public universities in their 2007 annual report and on their websites, a comparison of the disclosure results between universities was carried out. Each university was classified as either 'established' or 'new' based on the establishment year. The universities that have existed for 25 years or more were classified as established universities, while those universities that have been set up less than 25 years ago were grouped as new universities. Out of the 11 universities, four universities fall under the established university group, while the remaining seven universities are under the new universities' group. The mean index score for each disclosure category of both groups was then computed and compared.

RESULTS AND DISCUSSION

The findings of this study are presented in the following manner. First, the results on the disclosure level based on the MGTC 4/2007 and the selected items from the MAD index for both the annual report and website are presented, covering both the overall mean disclosure index for each of the seven categories and the mean disclosure index for each item under each category. Second, the findings on the comparison of the degree of disclosure between new and established groups of universities for each category of disclosure are discussed.

Table 1 shows the results of the disclosure analysis of the universities' annual report and website based on the seven categories of the MGTC 4/2007. Based on the category result for the annual report disclosures, it is clear that only the financial statements category has a mean score of 1, which indicates that all participating universities disclosed all the required financial statements in their 2007 annual report. The background information of the universities and the financial performance analysis categories also have high scores, with the mean index scores of 0.8485 and 0.8052, respectively. The category with the lowest index score is the report on government assistance, with the mean score of 0.5758. The

Item	N	Mean (Annual Report)	Mean (Website)
Chancellor & vice/pro	11	1	1
Board of directors	11	1	1
Investors (if any)	11	0	0
Audit committee	11	0.0909	0.545
Top management	11	1	1
Secretary	11	0.818	0
Auditor	11	0.7273	0
Office address	11	0.9091	1
Organizational structure	11	0.8182	1

Table 2. MGTC 4/2007 – Mean Index Disclosure for Corporate Information Items.

unfavorable disclosure result for the government assistance category may be because although there are three forms of funding assistance from the government, which are the research grant, loan, and government guarantee, most universities may have not been receiving all three forms of assistance.

On the other hand, the mean index scores for website disclosure in all categories seem to be substantially lower than the annual report disclosure, with the highest score of 0.636 for the background of the universities. None of the 11 universities under study disclosed information on government assistance, financial performance analysis, and financial statements.

The overall mean annual report disclosure index for the seven categories was 0.752, with all categories having index disclosure score of above 0.5. However, the overall mean website disclosure index was only 0.264. It shows that the universities have not fully disclosed the information as outlined in the MGTC 4/2007, although they have disclosed more information in the annual report than on the website.

On the positive side in relation to the annual report disclosure, Malaysian public universities seem to have equally disclosed both qualitative and quantitative information, unlike what previous studies in the west have found (Gray and Haslam, 1990; Dixon et al., 1991). Those studies reported a tendency to disclose quantitative information rather than qualitative information. The difference between Malaysian and western universities is evidenced by the fact that the mean index for qualitative information, such as corporate information and background of the university, was as high as that for quantitative information, such as financial performance analysis and financial statements.

To further examine disclosure practices among public universities, a detailed analysis of the annual report and website disclosures for each item under each category is presented below.

MGTC 4/2007 - Disclosure of corporate information

Table 2 shows the mean index disclosure level of each

item under corporate information in the universities' annual report and on the website.

The results reveal that there are three items under corporate information that have been fully disclosed by all the 11 universities both in their annual report and on the website. These are reported to have mean index score of 1. The items are: chancellor and vice chancellor, board of directors, and top management of the universities. Two other items that were disclosed by all universities on their website are the office address and organizational structure. As for annual report disclosure, there are four other corporate information items that also had favorable results, with the mean index score ranging from 0.727 to 0.909. Unlike annual report disclosure, none of the universities disclosed information on the auditor and secretary on their website.

It was also found that none of the universities disclosed company's investors information, an item under the corporate information category, and it has a mean index score of 0 both for disclosure in the annual report and on the website. Likewise, another corporate information item with low index mean score (0.0909) is audit committee. The reason for non-disclosure of the information on investors is possibly that there were no investors as public universities could receive funding from the government, and hence attracting investors is neither their business nor priority.

MGTC 4/2007 - Disclosure of background information

Based on Table 3, there are three items under this category, with two of the items – the statement of objective and the function and activities – having an index mean score of 1 for the disclosure in the annual report. The two items were also mostly published on the website. The statement of objective indicates a formal expression of mission and vision of the universities. It is considered crucial information as it reflects the mission and true objectives of the reporting entity (Dixon et al., 1991). Similarly, information on the function and activities that are carried out by the universities throughout the year

Table 3. MGTC 4/2007 – Mean Index Disclosure for Background Information.

Item	N	Mean (Annual Report)	Mean (Website)
Relevant parliamentary act on the university establishment	11	0.5455	0
Objective	11	1	1
Functions and activities	11	1	0.909

Table 4. MGTC 4/2007 – Mean Index Disclosure for Chairman Report Items.

Item	N	Mean (Annual Report)	Mean (Website)
Overall comment on programs, activities, and projects (PAP)	11	1	0
Performance of past programs, activities, and projects	11	1	0.727
Financial situation of the university compared with past years	11	0.1818	0
Events affecting the performance of PAP	11	0.7273	0.545
Future prospects and corporate strategy	11	1	0
Development of PAP	11	0.7273	0
Acknowledgement to members of the achievements	11	0.4545	0.909

also has been disclosed by all universities in their annual reports. This is a positive scenario as the universities thereby report all activities and programmes that they have carried out. These, to some extent, could offer information to the users of the annual report to evaluate the contributions offered by universities to the students and the society.

However, as for the other item in the background category, the relevant parliamentary act on the establishment of the university, only six universities disclosed the information in the annual report, and none disclosed it on the website. A closer look at the annual report revealed that all the six universities that disclosed this information are new public universities that have been in existence for less than 15 years. The four older universities did not disclose the information on the relevant parliamentary act possibly because, as the act is applicable across universities, they assume the users are well aware of the information.

MGTC 4/2007 - Disclosure of chairman report

There are three disclosure items under the chairman report that the 11 universities fully complied with, namely, information pertaining to future prospects and corporate strategy of the university, overall chairman comments on Programs, Activities, and Projects (PAP), and the performance on past PAP. The next highest mean index score, 0.727, is reported on the information about the events affecting the performance of PAP and the development of PAP items.

On the other hand, under the chairman report category, only few universities (0.1818) offered information on the financial situation of their universities. In addition, the item on the rewards to staff was also scarcely disclosed (0.4545) in the 2007 annual report in the chairman report

section. The unfavorable score obtained for the information on financial situation in the chairman report may be explained by the fact that universities are public entities and are not profit-driven; hence the chairman or rector or the university does not consider financial situation information to be so important as to be highlighted in the report. Moreover, there is already a specific section in the annual report that is meant to present information on the financial state of the universities.

Similar to the results for other categories of mean disclosure index of the MGTC 4/2007, the mean index scores for items in the chairman report category for website disclosure were also lower than the scores for disclosure in the annual report except the acknowledgment to members of the achievements item. This may be because, from time to time throughout the year, there are achievements by staff, and the website is the most convenient medium to congratulate the achiever and to inform other staff of the achievement.

MGTC 4/2007 - Disclosure of report on government assistance

In terms of disclosure on government assistance, all universities reported the grants they received in their 2007 annual report. However, the disclosure index mean score for the loan item is only 0.5455, and for the guarantee item, the index mean score is even lower, that is 0.1818. Hence, this has resulted in a low average disclosure index for the overall report on government assistance category. As mentioned in the earlier section, although universities' funding is mainly from the government, and there are three common types of funding as outlined in Table 5, universities may not be receiving all three types of assistance; hence, the unfavorable result for the mean index score for loan and guarantee could

Table 5. MGTC 4/2007 – Mean Index Disclosure for Government Assistance Items.

Item	N	Mean (Annual report)	Mean (Website)
Grant	11	1	0
Loan	11	0.5455	0
Guarantee	11	0.1818	0

Table 6. MGTC 4/2007 - Mean Index Disclosure for Financial Performance Analysis Items.

Item	N	Mean (Annual report)	Mean (Website)
Assets (non-current assets, investment and current assets) and asset turnover	11	1	0
Sources of finance and percentage of assets financed by liabilities	11	1	0
Reserves	11	0.2727	0
Long-term liabilities	11	0.9091	0
Sales / Income and gross profit analysis	11	0.9091	0
Profit/loss or surplus/deficit	11	1	0
Investment in subsidiaries	11	0.5455	0

be explained. In contrast to the annual report disclosure results, none of the universities disclosed any information on the financial assistance received from the government on their websites. This seems to be a negative scenario because, being the receiver of public funds from the government, public universities must be transparent and to reveal the information through any available means of communication.

MGTC 4/2007 - Disclosure of financial performance analysis

Table 6 reports the disclosure index mean scores of items in the annual report under the financial performance analysis category. There are three disclosure items that have an index mean score of 1: assets, profit or loss analysis, and sources of finance. These disclosure items are vital for stakeholders in assessing the continuity and financial viability of the reporting entity (Dixon et al., 1991). Information on long-term liabilities and gross income analysis were also well disclosed, with the index mean score of 0.9091. However, only six universities (mean index score of 0.545) disclosed an analysis on investment they have in subsidiary companies. In addition, the reserves item was also poorly disclosed, with a mean index score of only 0.273. The low mean index score for the investment in subsidiary and reserve items may possibly because in reality, the universities do not invest in subsidiaries and do not have any reserves; therefore, they have no information to disclose.

On the other hand, no information published on any university's website on the financial performance analysis. Even though publishing information on the website

is voluntary, financial performance is important information, and it is in the interest of numerous stakeholders to know how the allocated funds are being managed and utilized.

MGTC 4/2007 - Disclosure of performance analysis

From Table 7, one can see that, if not all, a number of universities disclosed in their annual report as well as on the website information on the objectives of the programmes and undertaken activities (mean index score of 1 for annual report and 0.818 for website), achievement of the programmes (mean index score of 0.9091 for annual report and 0.455 for website), new invention or discovery (mean index score of 0.818 for annual report and 0.455 for website), and courses offered (mean index score of 0.9091 for annual report and 1 for website).

However, very few or no universities disclosed information on the forecast expenditure or outcome from the programs (mean index score of 0.182 for annual report and 0.091 for website). A similarly low mean index score was reported for the following three items: intakes and graduates, events that affect the achievement, and future plan, with each item scoring 0.3636 for disclosure in the annual report and even worse for website disclosure. For both mediums, none of the universities disclosed information on the problems faced in undertaking programmes and activities. The unsatisfactory disclosure level of half of the items under the performance analysis category has led to a low overall mean index score for the category, as revealed in Table 1.

In summary, universities have not fully disclosed the minimum disclosure requirements, as outlined in the MGTC 4/2007, although, to some extent, the universities

Table 7. MGTC 4/2007 – Mean Index Disclosure for Performance Analysis Items.

Item	N	Mean (Annual report)	Mean (Website)
Objectives and report on PAP	11	1	0.818
Achievement of PAP	11	0.9091	0.455
List of projects (continuing, start during the year, completed during the year, WIP)	11	0.6364	0.727
New invention or discovery	11	0.8182	0.455
Courses offered	11	0.9091	1
Intakes and graduates	11	0.3636	0
Problems in undertaking PAP	11	0	0
Events that affect the achievement	11	0.3636	0
Forecast expenditure, outcome, and impact of PAP	11	0.1818	0.091
Future plan (if any)	11	0.3636	0.182

Table 8. MAD Index - Mean Index Score by Category.

Category	Number of Item	N	Mean (Annual report)	Mean (Website)
Service performance	2	11	0.227	0.364
Financial performance	2	11	0.091	0.364
Physical and financial condition	4	11	0.409	0.455
Overall	8	11	0.242	0.394

 Table 9. MAD Index - Disclosure of Service Performance Items.

Item	N	Mean (Annual report)	Mean (Website)
Employment/education destinations of students	11	0	0.727
Student-faculty/lecturer ratio	11	0.455	0

have disclosed reasonable level of information in their 2007 annual reports (overall mean index score of 0.752). Yet, the level of information published on the website is considered very low (overall mean index score of 0.264).

MAD Index: Disclosure practices by category

Based on Table 8, the overall mean index for the eight selected MAD items was 0.242 for the annual report disclosure and 0.394 for website disclosure. The results show that website has a higher disclosure level than annual report for both the overall result and each of the three disclosure categories. The proceeding discussion offers results of the detailed analysis of each of the three categories, examining the items under each category.

For the service performance category, there are two chosen MAD items, none of which had a score of 1 for either medium of reporting, as depicted in Table 9. The highest score is only 0.727 for the employment/education destinations item that has been disclosed on the website.

However, this item has not been disclosed by any university in the annual report. Similarly, none of the universities disclosed information on student-faculty ratio on their website, and less than half of the participating universities disclosed this information in their annual report. Arguably, these two accountability information items are beneficial to many stakeholders in judging the quality of graduates produced in terms of employability and in obtaining an overview of the learning environment and approach adopted by the university.

As shown in Table 10, the disclosure level for the two items under this category is not of satisfactory particularly for disclosure in the annual report. Although the items are vital accountability items, the possible reason for the unsatisfactory annual report disclosure level for the two items is that the two items are not part of the minimum disclosure requirements stated in the MGTC 4/2007.

Based on Table 11, the mean index score for items under the physical and financial condition category ranges from 1 to 0. A relatively low mean index score was reported in the annual report for items on

Table 10. MAD Index - Disclosure of Financial Performance Items.

Item	N	Mean (Annual report)	Mean (Website)
Budget information	11	0.182	0.091
Unit cost per student (student fees)	11	0	0.636

Table 11. MAD Index - Disclosure of Physical and Financial Condition Items.

Item	N	Mean (Annual report)	Mean (Website)
Faculty/staff	11	0.636	1
Library	11	0.818	0.818
Employment and education equity information	11	0.091	0
Building usage	11	0.455	0

Table 12. MGTC 4/2007 and MAD - Extent of Disclosure of Established and New Universities.

Category	Mean. Old (Annual report)	Mean. New (Annual report)	Mean. Old (Website)	Mean. New (Website)
Corporate information	0.75	0.68	0.639	0.603
Background of the university	0.67	0.95	0.667	0.619
Chairman report	0.71	0.75	0.429	0.245
Report on government assistance	0.25	0.25	0	0
Financial performance analysis	0.92	0.74	0	0
Performance analysis	0.56	0.60	0.45	0.329
Financial statements	1	1	0	0
*Service performance	0.375	0.143	0.5	0.286
*Financial performance	0.125	0.071	0.625	0.214
*Physical and financial condition	0.438	0.393	0.5	0.429
Overall disclosure	0.580	0.558	0.381	0.273

^{*}The MAD index categories which include items that are not part of the MGTC 4/2007.

employment and education equity information and building usage. Even worse, these items were not disclosed on the website of any university. In sum, of the eight selected MAD items, only a few were well disclosed by the universities either in their 2007 annual report or on their website, while many other MAD items were not satisfactorily disclosed.

Comparison of the extent of disclosure between established and new universities

In further assessing the disclosure level of Malaysian public universities in the 2007 annual report and website, a comparison of the mean disclosure index between established and new universities' groups was carried out. Table 12 presents the mean disclosure index of each category of disclosure information by the two groups of universities.

Table 12 shows a comparison between established universities and new universities on the overall disclosure level of information in each disclosure category. The

results reveal that established universities disclosed more information than new universities for both channels of communication (that is, annual report and website), and disclosure in the annual report is greater than that on the website for both groups of universities. This is possibly because old universities have been established for many years, and hence from time to time they improve on the extent of information disclosed to the users.

Looking at the individual disclosure categories, a higher index mean score for established universities, as compared with the new universities' group, is noted for the financial performance analysis category of the annual report disclosure. This result reflects a positive direction in the disclosure practices of public universities in Malaysia because few of the universities in the established universities' group are research universities. Apparently research universities are entitled to greater amount of funding from the government than other universities. Hence, it is expected from these universities to disclose more information on how the received funds have been utilised and how the society could benefit from

the use of those funds.

In relation to annual report disclosure, the new universities' group seemed to have outperformed the established universities' group in terms of the disclosure level in the background of the university category. However, the result is not surprising, as newly set-up universities need to intensively introduce and promote their university to the public to position themselves in the society and, more importantly, to compete with the established universities.

For other categories of disclosure items, there are only marginal differences between the results of the established and new universities' groups. For the report on government assistance category, both groups have similar disclosure levels. Likewise, for the financial statements category, both groups have an index score of 1 as all universities have provided relevant financial statements in their 2007 annual report. Yet, for these two categories, a zero mean index score was reported for website disclosure for both groups of universities.

Conclusions

This study attempted to investigate the disclosure levels of information in the annual report and on the websites of Malaysian public universities, based on the minimum required disclosure as outlined in the MGTC 4/2007 and several relevant items in the MAD index. In addition, the study compared the disclosure levels of two groups of universities – established universities and universities – for the two mediums of reporting. From the content analysis undertaken, the study found that even though the annual report disclosure level is, to an extent, satisfactory, public universities have not fully disclosed information outlined in the circular. To improve the level of information disclosure may require a greater enforcement from the government, which could, for instance, make items listed in the MGTC 4/2007 mandatory for public universities to disclose at least in their traditional annual report.

The findings of this study also show that the selected MAD items, which are not part of the list of the MGTC 4/2007 minimum disclosure requirements but have been used and validated by various researchers as important accountability information, tend to have a very low mean index score. Recognizing the importance of the information, the government may want to revise the present minimum disclosure requirements to also include new relevant accountability information. Moreover, due to the different nature and activities of public universities as compared with other government statutory bodies, we suggest the disclosure requirement items to be revised to include information that is directly related to the activities and the needs of the universities' stakeholders. In other words, the government should introduce a different set of disclosure requirements for different types of statutory bodies.

In addition to the issue of the extent of information disclosed in public universities' annual report, a more fundamental issue to be addressed is the user accessibility of the annual report. Although the annual report of public universities is in the public domain, from the experience of the researchers, it is not easy to get access to it. If the public cannot get access to the annual report, then the role of the annual report as a medium of discharging accountability is not achieved. To resolve the problem, it is necessary to make it available at places that are accessible to the public such as the National Library and the individual university's library or to make it available online on the website.

Universities also tend to disclose good information about the university's performance, rather than the problems they face. Universities play an integral role in providing education to the public and ensuring quality education programmes and facilities are offered. Revealing problems that hinder better performance of the universities could attract stakeholders to offer help and advice in solving those problems and improving the performance. This is because a public sector entity is unlike a private sector one, where disclosing weaknesses of one company may cause the competitor to take advantage of that company. As universities offer public services, it is the responsibility of all parties to ensure betterment in the quality of the service delivered.

With regards to the use of website as a reporting medium, the study found that, currently, limited information is made available on the universities' websites. In today's world, where technology is easily accessible, the movement away from the traditional mode of discharging accountability via the annual report to the alternative mode of using a website to disclose information to stakeholders should be encouraged, if not enforced. Given the potential role of the website in ensuring accountability, introducing incentives, such as awards to recognize universities' efforts in making good use of the website to convey useful information to stakeholders, may encourage universities to increase and improve the level and quality of the information disclosed on their websites. In addition, the government may want to issue a circular that emphasizes the need to disclose relevant information on the website.

LIMITATIONS

This study has several limitations. Firstly, the number of universities that participated in the analysis is relatively small, which, therefore, prevents researchers from conducting any statistical tests to further investigate the current annual report disclosure practice such as assessing the significance of the difference in disclosure levels between new and established universities' groups. However, even if all public universities participated in this

study, a statistical test to compare the two groups of universities would still be impossible as the total number of public universities in Malaysia is only 21. Secondly, this study mainly considers the extent of disclosure using two disclosure indexes but does not attempt to assess the quality of the information disclosed. In addition, this present study only examines annual reporting practices of universities for one calendar year. These limitations, however, may be addressed by future researchers who could analyze the entire population of public universities and their annual reporting practices for a longer period of time to highlight the trend in disclosure practice. It is also possible for future research to consider the quality of the disclosed information to identify the factors that may have contributed to the universities' current reporting practices, as these factors have not been captured in this present study. On the use of the website, future studies may want to evaluate the quality of the websites' features as well as the quality of the disclosed information.

SUGGESTION FOR FUTURE RESEARCH

Despite the shortcomings contained in this present study, the researchers believe that the findings reported here offer some insights to relevant parties into the current reporting practices of Malaysian public universities. The results also reveal the extent to which the annual report and website have delivered the accountability information to the public.

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