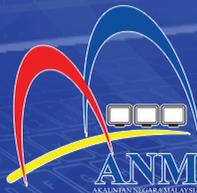


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## **Annual Reports of Malaysian Public Universities: The Extent of Compliance and Accountability**

**Suhaiza Ismail\***

**Nur Barizah Abu Bakar\*\***

\*Department of Accounting,  
Faculty of Economics and  
Management Sciences,  
International Islamic University  
Malaysia

\*\*Al-Faisal University, Riyadh,  
Saudi Arabia

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### **ABSTRACT**

The study intends to evaluate the extent of public universities' annual report disclosure in complying with the Malaysia Government Treasury Circular No. 4/2007 and in disclosing accountability information. Then, it compares the degree of annual report disclosure between established and new universities in Malaysia. Content analysis using two disclosure indexes was undertaken. Mean disclosure index was computed to examine the disclosure levels. Malaysian public

universities have not fully complied with the minimum disclosure requirements and more importantly, the degree of accountability information disclosure is lower. Additionally, although established universities group is better off in terms of accountability information disclosure it is reported to have lower degree of compliance to the minimum disclosure requirements. Greater enforcement from the government authority is required to ensure greater compliance of the universities in disclosing information in their annual report.

**Keywords:** annual report, accountability, public universities, Malaysia

### **INTRODUCTION**

Since the establishment of the first public university in Malaysia, the government has been constantly providing a huge portion of higher education institutions' total funding for the operating activities and development project. In particular, almost 90 per cent of the public higher education required funds were received from the government. In the 2009 budget, a total amount of RM14.1 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 of public higher education institutions (Malaysian Treasury, 2009).

Being the receiver of a huge amount of public fund, public higher education institutions are held accountable to make known to the public on how they utilized fund. One of the channels to relay information to the public on the performance of public universities in utilising the public resources is via the annual report. The public sector institutions' annual report which is referred to by Parker (1982) as mass medium of communication is also a means of discharging accountability of the government bodies to the public (Boyne and Law, 1991; Patton, 1992; and Greiling and Spraul, 2010). As there are numerous stakeholders whom public universities are held accountable to including parliament, ministry, existing and future students, parents, and public at large, hence, delivering relevant information via annual report is crucial.

There are numerous attempts to investigate the extent of annual report disclosure of universities in the developed countries (Gray and Haslam,

1990; Dixon et al., 1991; Coy et al., 1993; Bank and Nelson, 1994; and Nelson et al., 1997). However, there has been little evidence on disclosure practices of public universities in Malaysia to date. Hence, this present study aims at assessing the accountability of the public universities in Malaysia in terms of their reporting practices. There are three main objectives of this study that are: 1) to examine the extent of public universities' annual report disclosure in complying with the Malaysia Government Treasury Circular No. 4/2007; 2) to assess the extent of disclosure of accountability information in the annual report; and 3) to compare the degree of disclosure of (1) and (2) above between the established universities and new universities.

The unique contribution of this study is that as it evaluates the reporting practices of universities using two disclosure indexes. It does not only reveal the compliance level of current universities' annual but it also provides insights on the extent that the items list in the minimum disclosure requirements for universities annual report are in actual fact relevant information for discharging accountability.

The remaining part of this paper is structured as follows. The next section provides a background on higher education in Malaysia. This is followed by an overview on the preparation of annual report by Malaysian public universities. Then, a review of the relevant literature on universities' reporting disclosure practice is offered. Following that, a description of the research methodology adopted in this study is discussed. The findings and discussion of the study are then presented and finally, the conclusion, limitations and suggestions for future research are offered.

## **BACKGROUND OF HIGHER EDUCATION IN MALAYSIA**

Public higher education system in Malaysia has been in existence for more than 50 years with the inception of Malaya University in 1949. Generally, the higher education institutions in Malaysia can be divided into two groups; private and public institutions. Both groups are under the supervision of the Ministry of Higher Education (MOHE) although the later group has greater intervention from the ministry. Public higher education institutions (HEIs)

have been in existence much earlier than the private HEIs (MOHE, 2009a and 2009b).

There are three types of public HEIs. First, is the full-fledge public universities, which consist of 20 universities located at various states in Malaysia. Second, is the polytechnic with 21 institutes offering academic and vocational courses. Third, is community college and to date there are 37 community colleges which alliances the course offered to some of public universities.

In encouraging the public universities to compete among each other in improving their institutions, initiative has been taken to classify the public universities into three groups which are research universities, comprehensive universities and focus universities. The universities which are classified as research universities are Universiti Sains Malaysia, Universiti Malaya, Universiti Pertanian Malaysia and Universiti Kebangsaan Malaysia. On the other hand, comprehensive universities are the universities that offer courses in all fields of studies. There are four universities classified under this category which are Universiti Teknologi

Mara, International Islamic University Malaysia, Universiti Malaysia Sabah and Universiti Malaysia Sarawak. The last category which is focus universities consists of the remaining 12 universities that specialize in one area of study such as engineering, education, and management. Universiti Teknologi Malaysia, Universiti Pendidikan Sultan Idris, Universiti Utara Malaysia and Universiti Pertahanan Nasional Malaysia are among others being classified as focus universities (MOHE, 2009a).

The establishment of private HEIs had begun since 1950's and the development had rapidly until today. Currently, there are 32 private universities and University Colleges operated in Malaysia, four branch campuses of international universities and 485 private colleges. As earlier mention, the operation and administration of private universities is independent and only subject to minimal intervention from the MOHE. Nevertheless, the private HEIs are having equally important role in shaping the education system in Malaysia.

Looking at the encouraging development of HEIs in Malaysia, it has inspired this study to analyze

the disclosure level of annual report particularly the public universities as they are bound to comply with the recently revised government circular on the minimum annual report disclosure of statutory bodies that include public universities. The following section provides brief discussion on the rules and regulations regarding preparation of annual reports of public universities.

### **PREPARATION OF ANNUAL REPORTS AMONG PUBLIC UNIVERSITIES IN MALAYSIA**

Public universities in Malaysia are part of the statutory bodies and therefore, are obliged to comply to any Statutory Body Act. In preparing the annual report, the statutory bodies are governed by Section 5(1) Act 240 of Statutory Bodies Act on Financial Statements and Annual Report, 1980. In addition, Treasury Circular No. 4/2007 provides guideline on the minimum disclosure requirements of the annual report for statutory bodies including public universities. In fact, it is the latest circular governing the federal statutory bodies reporting which is effective from 2007 financial year. With its inception, the previous circular, Treasury Circular

No 4/1988 and Treasury Circular No. 15/1994 were then cancelled.

The guideline offers in MGTC 4/2007 is aimed at improving the accountability of statutory bodies including public universities by way of preparing and presenting relevant information in the annual report. According to the circular, the annual report needs to provide information for the following seven categories: 1. Corporate information; 2. Background of the entity; 3. Chairman report; 4. Government assistance report; 5. Financial performance report; 6. Performance analysis; 7. Audited financial report. At present, although different statutory bodies serve different functions, the guideline provides a standard list of minimum disclosure requirements that applies across all bodies except for the performance analysis category where different sector of statutory bodies has got different list of items.

In addition to MGTC 4/2007, Section 5 (1) Act 240 Statutory Bodies Act (Financial Statements and Annual Report) 1980 (Act 240) requires each statutory body to maintain a good record of financial statements and other

documents based on the generally accepted accounting principles and financial reporting standards to provide a true and fair view of its activities and performance.

## LITERATURE REVIEW

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 and Guthrie et al., 2003; Steccolini, 2004). Despite this important role of annual report, prior studies have highlighted at least two factors that hinder accountability role of annual report that 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 practice of various government entities such as local government (Robbins and Austin, 1986; Boyne and Law, 1999; and 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; and Nelson et al., 1997). The annual report disclosure practice of the later public entity (i.e. university) that is of relevant to this present study.

Since early 1990s, there has been a steady growth of research on different aspects of universities' annual report disclosure practice which were conducted by researchers in the developed countries. 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, significant changes in the non-financial information 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 years 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 their self developed weighted disclosure index known as Modified Accountability Index that was later being adopted by a number of studies globally. The result of the weighted disclosure index was then compared to the result from of dichotomous index and they 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 of universities from England, Wales

and Northern Ireland (EWNI), and 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 as compared to new universities particularly on the performance and financial performance.

## METHODOLOGY

### *Sample*

Initially, a letter was sent to all 20 public universities in Malaysia requesting for their 2007 annual report. Although annual report is public document, nevertheless, after several attempts of follow ups via email and phone call, only 11 universities responded and gave their 2007 annual report. Hence, the analysis of disclosures only covers these 11 universities.

### *Content Analysis*

As the study intends to assess the level of compliance of universities'

annual report with the MGTC 4/2007 and also to examine the extent of accountability information being disclosed by the annual report, the content analysis of universities' annual report disclosures was conducted using two different disclosure indexes namely 1) the disclosure index developed by researchers based on the MGTC No. 4/2007, the circular on the preparation and presentation of the annual reports and financial statements of statutory bodies that include public universities; and 2) the disclosure index on accountability information disclosure outlined by Coy et al. (1993).

### *MGTC 4/2007 Disclosure Index*

Based on the circular a total of 46 disclosure items are considered as necessary disclosure on public sector service oriented organization 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.

### *Modified Accountability Index (MAD)*

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 of 26 items that are group into four categories that are overview, service performance, financial performance, and physical and financial condition.

Since this study intends to assess the extent of compliance with the minimum disclosure requirements stated in the MGTC No. 4/2007 and the level of accountability information disclosed in the annual report and it does not intend to focus on any user group of the universities annual report, an equal weighting is given to each item. In other words, 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; and Dixon et al., 1991). This is because different users of annual report have inclination to different disclosure item and the approach here is to minimize and to average out the different values

perceived by different user groups with regard to each disclosure item.

The review of each university's annual report to identify the disclosure of each item under the two disclosure lists was carried out independently by two trained researchers. The outcomes from each researcher were then compared and any differences in the result were then closely looked at by revisiting the annual report to ensure whether the items were actually being 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 eleven universities.

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

## FINDINGS AND DISCUSSION

The findings of this study are presented in the following manner. First, the results of compliance with MGTC 4/2007 are presented which cover 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 degree of accountability information disclosure for each accountability category as well as each item under each category are discussed.

### *Mean Disclosure Index based on MGTC 4/2007*

**Table 1: MGTC 4/2007 – Overall Mean Index Score by Category**

Category	Number of Items	N	Mean
Corporate Information	9	11	0.7172
Background of the University	3	11	0.8485
Chairman Report	7	11	0.7273
Report on Government Assistance	3	11	0.5758
Financial Performance Analysis	7	11	0.8052
Performance Analysis	10	11	0.5909
Financial Statements	7	11	1
<b>OVERALL</b>	<b>46</b>	<b>11</b>	<b>0.752</b>

Table 1 above shows the results of the disclosure analysis of the universities' annual reports based on the seven categories as outlined in the Malaysian Government Treasury Circular No. 15/1994. Based on the category result, it reveals that only financial statements category has a mean score of 1 which indicates that

all participated universities disclosed all the required financial statements in their 2007 annual report. The background information of the universities and the financial performance analysis categories are also having high score 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 received with the mean score of 0.5758. The unfavorable disclosure result for 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 the three forms of assistance.

The overall mean disclosure index for the seven categories was 0.752 with all categories had index disclosure score of above 0.5. It shows that even though the universities have not fully complied with the disclosure requirements, they have disclosed information to some extent.

On the positive side, Malaysia public universities seem to equally disclosed

both qualitative and quantitative information unlike previous studies in the west (i.e.) which are reported to have been biased in disclosing quantitative information annual report than qualitative information. This is evidenced as the mean index for qualitative information such as corporate information and background of the university are as high as quantitative information such as financial performance analysis and financial statements.

To further examine the disclosure practices among public universities, the detail analysis of each item under each category is presented in the following sub-section.

#### *MGTC 4/2007 - Disclosure on Corporate Information*

Table 2 shows the mean index disclosure level of each item under corporate information in the universities' annual report.

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

Items	N	Mean
Chancellor & vice/pro	11	1
Board of Directors	11	1
Investors (if any)	11	0
Audit Committee	11	0.0909
Top Management	11	1
Secretary	11	0.818
Auditor	11	0.7273
Office Address	11	0.9091
Organizational structure	11	0.8182

The results reveal that there are three items under corporate information that have been fully complied by all the 11 universities as they are reported to have mean index score of one (1). The items are chancellor and vice chancellor, board of directors and top management of the universities. There are four other corporate information items which also had favorable results with the mean index score ranging from 0.727 to 0.909.

Nonetheless, it was found that none of the universities disclosed company's investors information, an item under the corporate information category as it has a mean index score of 0. Likewise, another corporate information item with low index mean score (0.0909)

is audit committee. The reason for none disclosure of the information on investors is possibly because they have no investors as public universities could receive funding from the government and hence attracting investors to invest is neither their business nor their priority.

**MGTC 4/2007 - Disclosure on Background Information**

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

	N	Mean
Relevant Parliamentary Act on the University Establishment	11	0.5455
Objective	11	1
Functions and Activities	11	1

Based on Table 3 above, there are three items under this category with two of the items which are the statement of objective and the function and activities having an index mean score of 1. The statement of objective indicates a formal expression of mission and vision of the universities. It is considered as 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 also has been disclosed by all universities in their annual reports. This is a positive scenario as the universities are reporting all activities and programmes that they have carried out which to some extent could offer information to the users of the annual report to evaluate the contributions offered by universities to the students and societies.

However, for the other item the background category that is the relevant parliamentary act on the establishment of the university, only six (6) universities disclosed the information (i.e. Mean index disclosure of 0.5455). A closer look at the annual report revealed that all the six (6) universities that disclosed this information are the new public universities which have been in existence for less than 15 years. The four older universities did not disclose the information on the parliamentary act on the establishment of the universities possibly because as the act is applicable across universities they assume the users are well aware of the information.

*MGTC 4/2007 - Disclosure on Chairman Report*

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

Items	N	Mean
Overall comment on programs, activities and projects (PAP)	11	1
Performance of past programs, activities and projects	11	1
Financial situation of the university compare with last years	11	0.1818
Events that effecting performance of PAP	11	0.7273
Future prospect and corporate strategy	11	1
Development of PAP	11	0.7273
Acknowledgement to members on the achievement	11	0.4545

There are three disclosure items under the chairman report that are fully complied by the 11 universities namely information pertaining to the future prospect 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 is 0.727 reported on the information on the event that affecting performance of PAP and the development of PAP items.

On the other hand, under the Chairman's report category, only few universities (0.1818) offered information on the financial situation of their universities

in the chairman report section. In addition, item on the rewards to staff is also scarcely disclosed (0.4545) in the 2007 annual report under the chairman report section. The unfavorable score obtained for information on financial situation in the chairman's report may be explained by the fact that university is one of the public entities and are not for profit driven, hence the chairman or rector or the university do not consider financial situation information to be that important to be highlighted in the report. Moreover, there is already a specific section in the annual report that is meant to report and present information on the financial state of the universities.

*MGTC 4/2007 - Disclosure on Report on Government Assistance*

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

Items	N	Mean
Grant	11	1
Loan	11	0.5455
Guarantee	11	0.1818

As for the report on government assistance, all universities reported on the grant received in their 2007 annual report. However, the disclosure

index mean score for item loan is only 0.5455, and for item guarantee 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 outline in Table 5, universities may not be receiving all the types of assistance, hence, the unfavorable result for the mean index score for loan and guarantee could be explained.

*MGTC 4/2007 - Disclosure on Financial Performance Analysis*

**Table 6: MGTC 4/2007 – Mean Index Disclosure for Financial Performance Analysis Items**

Items	N	Mean
Assets (Non-Current Assets, Investment and Current Assets) and Asset Turnover	11	1
Sources of finance and percentage of assets financed by liabilities	11	1
Reserves	11	0.2727
Long Term Liabilities	11	0.9091
Sales / Income and Gross Profit Analysis	11	0.9091
Profit/loss or Surplus/Deficit	11	1
Investment in Subsidiaries	11	0.5455

Table 6 reports the disclosure index mean scores of items under financial performance analysis category. There are three disclosure items that have an index mean score of 1 that are assets profit or loss analysis and sources of finance. These disclosure items are vital for stakeholders in the assessing the continuity and financial viability of the reporting entity (Dixon et.al, 1991). Information on the long term liabilities and gross income analysis mean 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 the investment they have in subsidiary companies. In addition, reserves item was also poorly disclosed with a mean index score of only 0.273. The low mean index score for investment in subsidiary and reserve items may not be due to non-compliance to MGTC 4/2007 but possibly because in actual the universities do not invest in subsidiaries and do not have any reserves, therefore they have no information to disclose.

*MGTC 4/2007 - Disclosure on Performance Analysis*

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

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

From Table 7 above, it shows that if not all, majority of the universities disclosed information on the objective of the programs and activities undertaken (mean index score = 1), achievement of the programs (mean index score = 0.9091), new invention or discovery (mean index score = 0.818), intakes and graduates (mean index score = 0.818) and courses offered (mean index score = 0.9091). However, very few universities disclosed information on the forecast expenditure or outcome from the programs (mean index score

= 0.182). Similar low mean index score was reported for the following three (3) items that are intakes and graduates, events that affect the achievement and achievement with each item scored 0.3636 mean index score, and even worse, none of the universities disclosed information on the problems faced in undertaking the programs and activities. The unsatisfactory disclosure level of half of the items under performance analysis category had led to a low overall mean index score for the category as revealed in Table 1.

In summary, universities have not fully complied with the minimum disclosure requirements as outlined in the MGTC 4/2009 although to some extent the universities have disclosed reasonable level of information in their 2007 annual reports (overall mean index score of 0.752).

*MGTC 4/2007: Comparison of Disclosure Level between Established and New Universities*

In further assessing the disclosure level of Malaysian public universities' 2007 annual report, a comparison of the mean disclosure index established and new universities groups was carried

out. Table 8 below presents the mean disclosure index of each of the seven categories of disclosure information of the two groups of universities.

**Table 8: MGTC 4/2007 - Extent of Disclosure between Established and New Universities**

Category	Mean. Established	Mean. New
Corporate Information	0.75	0.68
Background of the University	0.67	0.95
Chairman Report	0.71	0.75
Report on Government Assistance	0.25	0.25
Financial Performance Analysis	0.92	0.74
Performance Analysis	0.56	0.60
Financial Statements	1	1
Overall Disclosure	0.69	0.71

From Table 8 above, it shows that new universities have been disclosing slightly greater information than established universities as the overall index mean score for new universities group is 0.71 as compared to 0.69 mean index score for established universities group. The new universities group seemed to have outperformed the established universities group in terms of disclosure level for background of the university category. However,

the result is not surprising, as the newly set up universities need to intensively introducing and promoting their university to the public in order to position themselves in the society and more importantly to compete with the established universities. As for the established universities, a higher index mean score as compared to the new universities group is noted for the financial performance analysis category. This result reflects a positive direction in the disclosure practices of the public universities in Malaysia because few of the universities under the established universities group are research universities. Apparently, the 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 utilized and how the society could have benefit from it.

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 level. 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.

*MAD Index: The disclosure practices by category*

**Table 8 (a): MAD Index- Mean Index Score by Category**

Category	Number of Items	N	Mean
Overview	5	11	0.8909
Service Performance	6	11	0.6364
Financial Performance	7	11	0.7273
Physical and Financial Condition	7	11	0.5714
Overall	25	11	0.7065

Based on Table 8 (a) above, the overall mean index for all 25 accountability information items has a mean index score of 0.7065 with the overview category has the highest mean index score of 0.8909, whilst the category with least mean disclosure index is physical and financial condition with a mean score of only 0.5714. The proceeding discussion offers results on the detailed analysis of each of the four categories looking at the items under

each category.

**Table 9: MAD Index - Disclosure of Overview Items**

Items	N	Mean
Statement of Objectives	11	1
Descriptive Report / General Review	11	1
Financial Review	11	0.9091
Accounting Policies	11	0.9091
Directories Information	11	0.6364

Table 9 presents the index mean score for each item under the overview category. It shows that four out of the five overview items scored a favorable mean index score with statement of objectives and descriptive report or general review items have the mean index score of one each which indicates that all universities disclosed the information in their annual report. Surprisingly, not all of the 11 universities offer directories information in their 2007 annual report, although this information could easily be obtained from other sources such as from the individual university's website, MOHE's website and phone directories. Overall, the disclosure level of overview information by the universities to some extent is satisfactory.

**Table 10: MAD Index - Disclosure of Service Performance Items**

Items	N	Mean
Student Numbers	11	0.9091
Graduates	11	0.7273
Employment / Education Destinations of Students	11	0
Publications	11	0.9091
Student-Faculty / Lecturer Ratio	11	0.4545
Targets	11	0.8182

For the service performance category, none of the six items has a score of one as depicted in Table 10 above. The highest score is 0.9091 for two items that are student numbers and publications. This is followed by targets and graduates items with mean index scores of 0.8182 and 0.7273 respectively. Item with quite a low mean index score is student-lecturer ratio with less than half of the participated universities disclosed the information. Even worse, none of the annual report disclosed information on the employment or education destinations of students upon graduation. Apparently, the two least disclosed accountability information are beneficial information 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.

**Table 11: MAD Index - Disclosure of Financial Performance Items**

Items	N	Mean
Operating Statement	11	1
Depreciation	11	1
Budget Information	11	0.1818
Unit Cost Per Student (Student Fees)	11	0
Statement of Cash Flows	11	1
Research Grants	11	1
Overhead Allocation	11	0.9091

Of the seven items under the financial performance category as shown in Table 11, five items are well disclosed with four items have mean disclosure index of one. On the other hand, the least disclosed items are budget information and unit cost per student or student fees. The possible reason for the unsatisfactory disclosure level for the two items is because the two items are not part of the minimum disclosure requirements stated in the MGTC 4/2007.

**Table 12: MAD Index - Disclosure of Physical and Financial Condition Items**

Items	N	Mean
Balance Sheet	11	1
Faculty/Staff	11	0.6364
Library	11	0.8182
Investment	11	0.3636
Commitments and Contingencies	11	0.7273
Employment and Education Equity Information	11	0.0909
Building Usage	11	0.3636

Based on Table 12, the mean index score for items under physical and financial condition category ranges from 1 to 0.0909. Relatively low mean index score was reported for three items that are employment and education equity information, building usage and investment. Similar justification should apply for a low mean index score of investment item as given when reporting results on compliance to MGTC 4/2007 may apply.

In a nutshell, degree of disclosure of accountability information in the 2007 universities annual report is lower compared to the disclosure level on the compliance to treasury

circular. Moreover, it is observed that accountability information items that are not part of the minimum disclosure requirements under the MGTC 4/2007 have scored even lower in the mean index disclosure.

**Table 13: Comparison of the Extent of Disclosure Between Established and New University**

Category	Mean Established	Mean New
Overview	0.9	0.89
Service Performance	0.75	0.57
Financial Performance	0.75	0.71
Physical and Financial Condition	0.571	0.57
Overall Disclosure	0.7427	0.67

As shown in Table 13 above, comparison of overall disclosure level of accountability information between established and new universities reveals that the established universities disclosed more accountability information than the new universities group. This greater disclosure by established universities applies across all the four categories. This reflects greater accountability of the established universities as they have been to some extent disclosing significant information on their key function that is the education

service and also transparent in terms of the fund utilization.

Interestingly, when comparing results in Table 8 and Table 13 on the comparison between established and new universities, the findings revealed that new universities group is better off in terms of compliance level whilst the established universities group is at the advantage in terms of accountability disclosure.

### **Conclusions, Limitations and Suggestion for Future Research**

This study attempted to investigate the disclosure level of the annual report of the Malaysian public universities in complying with the minimum required disclosures as outlined in the MGTC 14/2007 and in disclosing accountability information as proposed by Coy et al. (1993). In addition, the study made comparison in the disclosure level between two groups of universities that are established universities and new universities. From the content analysis undertaken, the study found that even though the disclosure level is to an extent satisfactory, the public universities have not been fully complied

with the requirements of the circular. This implies that greater enforcement from the government authority is required in order to make sure greater compliance of the universities in disclosing information in their annual report.

Universities also tend to disclose mainly good information about the universities performance than the problems facing by the universities. Universities play an integral role in providing education to the public and in ensuring quality education programs and facilities are offered; by revealing problems that hinder better performance of universities to extent could attract stakeholders to offer helps and advice in solving the problems or improving performance. This is because public sector entity is unlike private sector where disclosing the weaknesses of one company may cause the competitor to take advantage of the weak company. As universities are offering public services hence it is the responsibility of all parties to make betterment in the quality of the service delivered.

In addition, this study found that the level of disclosure of accountability information is lower than the level

of disclosure for complying with the government circular on the preparation of the annual report. Furthermore, the accountability items that are not part of the list in the minimum disclosure requirements tend to have even lower mean index score. Hence, the extent to which items listed under the minimum disclosure requirement fulfill the objective of discharging accountability to the public could be questionable. Therefore, the government authority may want to revise the present minimum disclosure requirements to ensure more relevant information is disclosed in the annual report. Government authority may also want to come out with different set of disclosure requirement for different public entity sector as each sector has its own unique characteristics and functions. Hence, information to be disclosed in the annual report also must tailor the specific public entity sector to enable better accountability function of the annual report.

This study has several limitations. Firstly, the number of universities participated in the analysis is relatively small and therefore it hinders researcher from undertaking any statistical test to further investigate the current annual report

disclosure practice such as in assessing the significant difference of disclosure level between new and established universities groups. Secondly, this study mainly considers the extent of disclosure of two disclosure indexes but do not attempt to quantify the quality of the information disclosed. In addition, this present study also only examines annual reporting practice of universities for one calendar year. These limitations are however, may be addressed by future researchers by analyzing the whole population of public universities' annual reporting practice, for a longer period of time in order to highlight on the trend of disclosure practice and it is also possible for future research to consider the quality of information disclose to identify the factors that may have contributed to the current reporting practices of universities as these have not been captured in this present study. Despite the shortcomings contain in this present study, the researchers believe that the findings reported in this study offer some insights to relevant parties on the current reporting practice of Malaysian public universities and on the extent to which annual report has had delivered the accountability role to the public.

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## **Cash Economy dan Ketidapatuhan Cukai di Kalangan PKS Sektor Pembinaan di Malaysia**

**Muhammad Aqbal Mashadi  
Rosiat Ramli  
Mohd. Rizal Palil  
Romlah Jaffar**

Pusat Pengajian Perakaunan  
Fakulti Ekonomi dan Pengurusan  
Universiti Kebangsaan Malaysia  
Bangi, Selangor, Malaysia

### **ABSTRACT**

The tax environment in Malaysia is still facing the problems of non-compliance. It has become more critical due to the existence of activities under cash economy among small and medium-sized businesses (SMEs). Although many studies on tax compliance have been done, there are still limited discussion on the form or condition referred to as tax non-compliance. Hence this study details out the forms of tax non-compliance based on four situations which are: (1) no registration; (2) late or no submission of tax return; (3) no income reporting or under statement of income; and (4) late or no payment of income tax. The term

cash economy is still new in Malaysia's tax environment. It is also known as parallel, black, hidden, underground and shadow economy. Most tax literatures refer cash economy as tax non-compliant activities that affect most countries in the world including Malaysia. Therefore the focus of this study is to identify which categories of SMEs in Malaysia that are involved in activities of cash economy, especially from the construction sector which has been indicated as highly involved with tax non-compliance. The results showed that in 2013, 44% of the SME samples in the construction sector did not comply, and out of that 84% were involved in cash economy. The findings also showed that the action of not registering, late or not submitting the tax return were the most dominant. On the other hand, the civil engineering and micro-sized businesses are the most dominant SMEs of the construction sector in Malaysia that involve in tax non-compliance. The results of this study are highly relevant to the Inland Revenue Board of Malaysia in developing tax compliance strategies and at the same time adding value to the collection of tax literatures.

**Keywords:** Tax Non-compliance (Register, Filing, Reporting and Payment); Cash Economy; Small and Medium Enterprise (SME); Construction Sector.



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**Muhammad Aqbal Mashadi  
Rosiat Ramli  
Mohd. Rizal Palil  
Romlah Jaffar**

Pusat Pengajian Perakaunan  
Fakulti Ekonomi dan Pengurusan  
Universiti Kebangsaan Malaysia  
Bangi, Selangor, Malaysia

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### **ABSTRAK**

Persekitaran cukai di Malaysia masih berdepan dengan masalah ketidapatuhan cukai, di mana isu ini tambah meruncing dengan wujudnya situasi yang melibatkan aktiviti-aktiviti '*cash economy*', terutamanya di kalangan peniagaan kecil dan sederhana (PKS). Walaupun kajian berkaitan ketidapatuhan cukai telah banyak dilakukan tetapi amat kurang perbincangan yang menyentuh bentuk atau keadaan yang bagaimana dimaksud sebagai

tidak patuh cukai. Justeru kajian ini mengemukakan perincian bentuk-bentuk ketidapatuhan cukai tersebut berdasarkan empat keadaan iaitu tidak daftar, tidak atau lewat hantar, tidak atau kurang lapor dan tidak atau lewat bayar. Istilah '*cash economy*' masih baru dalam persekitaran cukai di Malaysia dan turut dikenali dengan istilah lain seperti '*parallel, black, hidden, underground & shadow economy*'. Literatur cukai merujuk *cash economy* sebagai aktiviti tidak patuh cukai di mana isu ini turut melibatkan kebanyakan negara di dunia termasuk Malaysia. Oleh itu fokus kajian ini juga adalah untuk mengenalpasti siapa pelaku *cash economy* di kalangan PKS di Malaysia, khususnya dari sektor pembinaan yang telah dikaitkan sebagai paling tinggi terlibat dengan ketidapatuhan cukai. Hasil kajian ini mendapati bagi tahun 2013, sebanyak 44% dari sampel PKS sektor pembinaan telah melakukan ketidapatuhan cukai, di mana 84% darinya adalah terlibat dengan aktiviti *cash economy*. Dapatan kajian juga menunjukkan bahawa tindakan tidak mendaftar dan lewat atau tidak menghantar borang

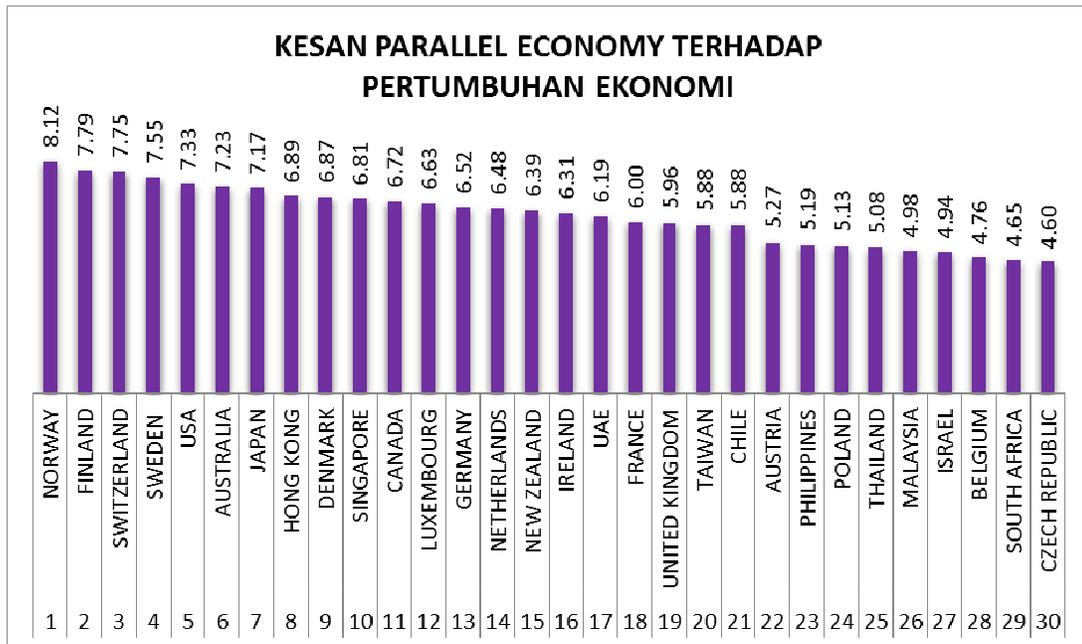
adalah yang paling dominan. Manakala jenis perniagaan kejuruteraan awam dan perniagaan bersaiz mikro pula merupakan pelaku yang dominan melakukan kesalahan cukai di kalangan PKS sektor pembinaan Malaysia. Hasil kajian ini sangat relevan kepada pihak LHDNM dalam merangka strategi pematuhan cukai yang lebih berkesan dan pada masa yang sama memberikan nilai tambah kepada himpunan literatur cukai.

**Kata Kunci:** Ketidakpatuhan Cukai (daftar, hantar, lapor, dan bayar); *Cash Economy*; Perniagaan Kecil dan Sederhana (PKS); Sektor Pembinaan

## PENGENALAN

Hasil cukai merupakan sumber utama bagi sesebuah kerajaan untuk membiayai perbelanjaan pengurusan dan pembangunan, di mana hasil tersebut merupakan komponen utama pendapatan kerajaan Malaysia. Jumlah kutipan hasil cukai banyak bergantung kepada prestasi ekonomi dan kemampuan sistem percukaian

oleh Lembaga Hasil Dalam Negeri Malaysia (LHDNM) dalam mendepani isu-isu cukai semasa. Ketidaktentuan ekonomi semasa kini menyebabkan pembayar cukai mencari ruang serta peluang bagi mengurangkan beban membayar cukai ataupun tidak perlu membayar cukai langsung. Situasi ini secara tidak langsung meningkatkan peratus ketidakpatuhan cukai serta kewujudan istilah-istilah percukaian seperti pelarian cukai, pengelakan cukai, pindahan harga, *cash economy*, *hidden economy* dan *parallel economy*. Laporan IMD (2013) mendedahkan istilah terkini percukaian ini memberi kesan yang signifikan terhadap pertumbuhan ekonomi dan perkara ini dapat diperhatikan melalui Rajah 1. Rajah 1 menunjukkan kedudukan Malaysia pada skor 4.98 iaitu antara negara yang menerima kesan signifikan dari aktiviti *cash economy* berbanding negara jiran seperti Thailand Filipina dan Singapura.



**Rajah 1: Kesan Parallel Economy Terhadap Pertumbuhan Ekonomi  
IMD World Competitiveness Centre (2013)**

*Cash economy* adalah salah satu cabang ketidakpatuhan cukai yang mempunyai maksud yang sama dengan istilah-istilah lain seperti *parallel economy*, *black economy*, *hidden economy* & *underground economy* (Kasipillai 1998). Walaupun kajian-kajian lepas menggunakan istilah yang berbeza tetapi penyelidik dan badan pentadbir cukai bersetuju *cash economy* merupakan salah satu daripada aktiviti tidak patuh cukai (Summer 1996). Manakala ketidakpatuhan cukai secara ringkas merujuk kepada tindakan yang menyalahi peruntukkan perundangan

cukai di sesebuah negara tersebut (Richardson 2008). Brown dan Mazur (2003) menjelaskan ketidakpatuhan cukai berlaku apabila salah satu elemen berikut iaitu penghantaran borang cukai, pelaporan pendapatan dan pembayaran cukai gagal dilaksanakan.

Kajian oleh Bajada & Schneider (2007) mendapati saiz purata aktiviti *shadow economy* di Malaysia adalah pada kadar 30.9% di mana angka ini telah menunjukkan pertumbuhan iaitu 26.4% pada 1990 dan 28.3% pada tahun

1995. Dapatan kajian turut disokong oleh Marliza Mohamed (2012) yang mengemukakan perincian statistik bahawa peratus peningkatan aktiviti underground economy di Malaysia adalah sangat signifikan bagi tempoh 1980 hingga 2009 iaitu 9% hingga 27%. Manakala Belkaoui (2004) pula dalam mengukur pematuhan cukai berpendapat tahap pematuhan cukai di Malaysia adalah sederhana dan jauh ketinggalan berbanding negara jiran yang terdekat iaitu Singapura. Terkini, laporan oleh pihak berkuasa cukai di Malaysia (Kastam) turut memperakui kehadiran aktiviti tidak membayar cukai ini apabila mendedahkan hampir 38,000 entiti perniagaan yang membuat pendaftaran untuk cukai barang dan perkhidmatan (GST) tidak mempunyai rekod percukaian (Siti Norhawa Mohd Ali 2015).

Walaupun beberapa siri kajian telah dilaksanakan terhadap ketidakpatuhan cukai perniagaan kecil dan sederhana (PKS) Malaysia seperti Nor Azrina Yusof, Ming Ling Lai & Yap Bee Wah (2014), tetapi penjelasan yang menyatakan samada entiti PKS khusus sektor pembinaan terlibat dengan cash economy. Kajian lepas

juga tidak memperincikan kategori perniagaan di kalangan PKS sektor pembinaan yang paling cenderung untuk melakukan ketidakpatuhan cukai. Selain dari itu kajian lepas didapati kurang membincangkan bentuk-bentuk ketidakpatuhan cukai menurut definisi Brown dan Mazur (2003) iaitu hantar, lapor dan bayar. Perlaksanaan kajian ini adalah perlu bagi mendapatkan kefahaman lanjut berkaitan bentuk-bentuk ketidakpatuhan cukai, *cash economy* dan pelaku yang terlibat dalam konteks PKS sektor pembinaan. Oleh itu matlamat kajian adalah spesifik iaitu; 1) Mengenalpasti gelagat cukai samada patuh cukai atau tidak patuh cukai; 2) Mengenalpasti bentuk-bentuk tidak patuh cukai yang dilakukan oleh PKS sektor pembinaan; dan 3) Mengukur sejauh mana penglibatan PKS sektor pembinaan terhadap aktiviti ketidakpatuhan cukai dan *cash economy*.

## SOROTAN KAJIAN

### *Cash Economy*

Isu *cash economy* merupakan masalah yang dihadapi oleh kebanyakan negara seperti Kanada, Malaysia, New

Zealand, United Kingdom dan Amerika Syarikat (Australian National Audit Office -ANAO 2001). Takrifan awal *cash economy* merujuk kepada tindakan oleh entiti perniagaan atau individu yang tidak melaporkan pendapatan tunai yang diperolehi (ATO 1997). Selari dengan peredaran masa, modus operandi *cash economy* kemudian diperluaskan kepada bentuk-bentuk penerimaan yang lain seperti cek, kad kredit, pindahan elektronik atau sistem barter (ATO 2003). Lanjutan dari itu ATO turut menjelaskan keadaan di mana entiti perniagaan berisiko untuk terlibat melakukan *cash economy* apabila; i) entiti perniagaan berada di luar sistem cukai (tidak berdaftar) dan ii) telah berada dalam sistem tetapi tidak melaporkan semua sumber pendapatan. Merujuk kepada literatur kajian, maka definisi *cash economy* bagi tujuan kajian ini adalah entiti; 1) tidak mendaftar sebagai pembayar cukai, atau 2) tidak menghantar borang cukai; atau 3) tidak melaporkan semua

sumber pendapatan.

Pemahaman topik *cash economy* menarik minat penyelidik di mana isu ini telah dikaji oleh Gutmann (1977) dan Feige (1979). Kedua-dua penyelidik menggunakan istilah *underground economy* dengan takrifan aktiviti yang tidak dikira dalam pendapatan sesebuah negara di mana kebanyakan dari aktiviti ini terlepas dari membayar cukai. Pandangan yang sama dikemukakan oleh Summer (1996) apabila mentafsirkan *cash economy* sebagai pendapatan yang diterima dari penglibatan dalam aktiviti ekonomi yang biasa tetapi tidak melaporkan cukai kepada pihak berkuasa cukai negeri atau persekutuan. Penggunaan istilah yang berbeza kemudian dibincangkan dalam hasil kajian Frey dan Schneider (2000) dan penyelidikan oleh Rand Europe dan National Audit Office (2008) seperti *informal, unofficial, irregular, parallel, hidden, unrecorded, shadow, black* dan *cash economy*.

**Jadual 1: Klasifikasi Jenis Aktiviti Underground Economy**

	Transaksi Melibatkan Wang	Transaksi Tidak Melibatkan Wang
Aktiviti Menyalahi Undang-Undang	Perdagangan barang curi, pengedaran dan pembuatan dadah, pelacuran, perjudian, penyeludupan dan penipuan.	Menggunakan sistem barter bagi aktiviti dadah, barang curi dan penyeludupan.

	Pelarian Cukai	Pengelakan Cukai	Pelarian Cukai	Pengelakan Cukai
Aktiviti Tidak Menyalahi Undang-Undang	Tidak melaporkan pendapatan dari hasil kerja sendiri @ sampingan.  Terimaan upah, gaji dan aset yang tidak lapor dari kerja yang sah.	Penerimaan diskaun dan manfaat yang berkaitan lain dari pekerjaan yang sah.	Penggunaan sistem barter dalam transaksi perniagaan. (Pembelian barang di bayar melalui pertukaran barang)	Kerja-kerja yang dilakukan sendiri atau bantuan jiran mengikut giliran.

Sumber: Lippert & Walker (1997)

Pada penyelidikan yang berbeza, Lippert dan Walker (1997) telah menjelaskan kriteria bagi aktiviti *underground economy*. Merujuk Jadual 1 di atas aktiviti *underground economy* berlaku dalam dua keadaan iaitu aktiviti ekonomi yang mengikut undang-undang atau tidak mengikut undang-undang dan transaksi melibatkan wang atau transaksi tidak melibatkan wang. Aspek penyelidikan *cash economy* turut mengkaji faktor-faktor yang menyebabkan pembayar cukai terlibat melakukan aktiviti kesalahan cukai ini. Kajian ATO mendapati entiti perniagaan kurang atau tidak melaporkan pendapatan tunai apabila mempunyai bilangan transaksi tunai yang tinggi, pemilik mempunyai peluang untuk menyembunyikan transaksi tunai dan wujud keadaan yang mendesak

seperti kemerosotan ekonomi pada aktiviti perniagaan (Inspector General of Taxation Australia - IGT 2012). Selain dari tiga faktor tersebut, CETF turut menggariskan beberapa faktor lain penyebab *cash economy* iaitu sifat tunai, amalan industri, niat pembayar cukai, persepsi umum, tiada insentif patuh cukai, kecekapan badan pentadbir cukai, peranan dari agen cukai dan sistem cukai yang kompleks (ATO 1997). Sementara kajian Buehn dan Schneider (2012) memperincikan faktor *cash economy* adalah beban cukai, kualiti institusi kerajaan, perundangan, moral cukai dan pencegahan.

#### *Ketidakpatuhan Cukai*

Kepatuhan atau ketidakpatuhan cukai bukanlah suatu istilah yang baharu

dalam persekitaran penyelidikan cukai. Namun begitu, sehingga kini masih tiada definisi yang standard bagi mewakili maksud untuk kedua-dua istilah tersebut. Terdapat pelbagai takrifan yang menjelaskan keadaan patuh dan tidak patuh cukai antaranya; Andreoni, Erard & Feinstein (1998) mendefinisikan kepatuhan cukai sebagai kesanggupan pembayar cukai untuk mematuhi undang-undang cukai; Kirchler (2007) memberikan maksud yang lebih mudah iaitu kesanggupan individu atau entiti untuk membayar cukainya; manakala definisi pematuhan cukai menurut Mohd Rizal Palil (2010) adalah kerelaan pembayar cukai untuk patuh dengan perundangan cukai, melaporkan pendapatan sebenar, menuntut belanja yang dibenarkan dan membayar cukai tepat pada masanya. Pada perspektif yang berbeza badan pentadbir cukai seperti ATO (2007) dan pesuruhjaya ekonomi Eropah OECD (2012) mendefinisikan pematuhan sebagai kombinasi elemen-elemen seperti pendaftaran, penghantaran, pelaporan, dan pembayaran.

Interpretasi kepatuhan dan ketidakpatuhan cukai di Malaysia merujuk kepada peruntukan dalam

Akta Cukai Pendapatan (ACP 1967). Ketidakpatuhan cukai menurut ACP 1967 berdasarkan peruntukan beberapa seksyen yang berkaitan dengan penalti dan kesalahan. Pertama ialah Seksyen 112 yang menjelaskan perihal kegagalan entiti atau individu menghantar borang cukai. Keperluan menghantar borang dijelaskan pada Seksyen 77(1)(a) dan (b) menghendaki setiap individu selain suatu syarikat, badan amanah atau koperasi menghantar borang cukai pada atau sebelum 30hb Jun (bagi yang menjalankan perniagaan) dan 30hb April (yang tiada pendapatan perniagaan). Seterusnya, Seksyen 77A(1) pula menetapkan tiap-tiap syarikat, badan amanah atau koperasi supaya menghantar borang cukai dalam tempoh tujuh bulan selepas penutupan tempoh perakaunan.

Selain daripada kegagalan menghantar borang cukai, ketidakpatuhan cukai juga merujuk kepada perlakuan tidak melaporkan pendapatan dengan betul di dalam borang cukai pendapatan yang jelas memperlihatkan bahawa kesalahan ini tertakluk kepada peruntukan Seksyen 113 dan 114 ACP 1967. Perbezaan bagi kedua-

dua peruntukan, iaitu Seksyen 113 dan 114 ialah keadaan kesalahan cukai dilakukan dan bentuk-bentuk hukuman yang dikenakan. Seksyen 113 melihat kesalahan cukai lebih kepada kesilapan dan kecuaiian, maka hukuman yang dikenakan hanya berbentuk bayaran denda tunai, manakala Seksyen 114 melihat kesalahan cukai yang dilakukan dengan niat dan perancangan yang teliti untuk tidak membayar cukai, maka denda yang lebih berat diperuntukkan, iaitu denda tunai dan hukuman penjara. Ketidakpatuhan cukai yang seterusnya menurut ACP 1967 adalah kegagalan untuk membayar cukai dalam tempoh yang ditetapkan. Menurut peruntukan Seksyen 103(1) pembayar cukai perlu menjelaskan bayaran cukai yang telah dikira selewat-lewatnya pada tarikh akhir borang nyata cukai perlu dihantar.

Perbincangan di atas mendapati LHDNM turut merujuk kepada komponen tertentu apabila menyentuh isu pematuhan cukai iaitu menghantar borang cukai sebelum tarikh tutup, melaporkan pendapatan dengan betul dan membayar cukai sebelum tempoh berakhir. Turut selari dengan definisi LHDNM bagi maksud pematuhan cukai adalah; Brown & Mazur (2003) yang

menjelaskan ketidakpatuhan cukai boleh diukur berdasarkan komponen hantar, lapor dan bayar. Pematuhan cukai menurut Kasipillai dan Hijattulah Abdul Jabbar (2006) pula merujuk kepada gabungan elemen-elemen seperti penghantaran borang, pelaporan yang benar, dan pembayaran cukai. Natrah Saad (2012) mentakrifkan pematuhan cukai sebagai suatu keadaan di mana para pembayar cukai memfailkan borang cukai tepat pada masanya dan melaporkan pendapatan berdasarkan perundangan cukai yang ditetapkan. Oleh itu dalam konteks kajian ini, takrifan ketidakpatuhan cukai adalah; 1) lewat hantar borang; 2) kurang lapor pendapatan; dan 3) tidak atau lewat bayar cukai.

#### *PKS Sektor Pembinaan*

Terdapat beberapa definisi PKS di Malaysia. Pertama ialah definisi daripada Majlis Pembangunan PKS Kebangsaan (MPPK), iaitu pengelasan saiz PKS (mikro, kecil, dan sederhana) di Malaysia tertakluk kepada dua ciri utama, iaitu jumlah perolehan tahunan dan bilangan pekerja (Jabatan Perangkaan Malaysia -JPM 2012). Definisi kedua ialah definisi yang diguna pakai oleh LHDNM, iaitu

sesuatu entiti dikelaskan sebagai PKS apabila hanya mempunyai modal berbayar kurang daripada RM2.5 pada akhir tempoh tahun taksiran (ACP 1967). Pada peringkat antarabangsa, definisi PKS tidak mempunyai perbezaan yang ketara yang jelas memperlihatkan bahawa Bank Dunia dan Kesatuan Eropah turut mengelaskan entiti perniagaan sebagai PKS berdasarkan bilangan pekerja, perolehan tahunan, dan aset (International Tax Dialogue -ITD 2007).

Entiti PKS kerap menjadi subjek kajian dalam usaha untuk memahami karakter dan gelagat kelompok ini terhadap isu-isu percukaian semasa. Hal ini berlaku apabila kajian lepas yang dilakukan oleh Mohd Khairuddin Hashim (2007) mendapati bahawa entiti PKS sering berhadapan dengan masalah kewangan, pengurusan, dan teknologi, manakala kajian lepas yang dilakukan oleh Hanefah Mustafa dan Abdul Latif Al-Mureshi (1991) mendedahkan bahawa kebanyakan perkhidmatan yang diberikan oleh firma perunding perakaunan kepada PKS lazimnya berkaitan dengan simpan kira dan percukaian. Selain daripada kelemahan yang terdapat pada PKS, didapati juga

bahawa perniagaan bersaiz kecil lebih berisiko untuk tidak melaporkan cukai dengan betul (Kirchler, Niemirowski & Wearing 2006). Turut mengkaji tingkah laku negatif PKS terhadap cukai ialah Williams (2007, 2009) yang mendapati bahawa entiti ini tidak melaporkan semua hasil jualan pada peringkat permulaan operasi perniagaan dan akan terus melakukan aktiviti tersebut walaupun telah mempunyai kedudukan yang kukuh dan stabil dalam pasaran.

Melalui perspektif kajian yang berbeza, terdapat kajian yang menjelaskan keadaan ketidakpatuhan cukai terhadap beberapa sektor ekonomi terpilih. Merujuk kajian (Nor Azrina Yusof et al. 2014) mendapati PKS sektor pembinaan paling tinggi terlibat dalam ketidakpatuhan cukai berbanding sektor perkhidmatan dan pembuatan. Dapatan kajian yang serupa diperoleh oleh Ming Ling Lai et al. (2013) yang menjelaskan sektor pembinaan paling dominan terlibat dengan kesalahan cukai melalui penggunaannya kaedah kurang melaporkan jualan, memalsukan transaksi belian, dan menuntut perbelanjaan yang tidak dibenarkan. Badan-badan pentadbir cukai seperti ATO, HMRC, dan IRS turut menyatakan pendapat yang sama

berhubung jenis-jenis perniagaan yang berisiko tinggi untuk terlibat dalam masalah ketidakpatuhan cukai yang jelas memperlihatkan bahawa sektor pembinaan merupakan salah satu industri yang perlu diberi perhatian (Rand Europe dan National Audit Office 2008). Perbincangan ini dijelaskan lagi melalui paparan Jadual 2 di bawah.

perniagaan (LHDNM 2014) dan daripada 662,939 entiti perniagaan yang berdaftar sebanyak 645,136 terdiri daripada PKS (JPM 2012). Gabungan informasi literatur cukai dan data-data ekonomi jelas menunjukkan rasional pemilihan entiti PKS sektor pembinaan.

**Jadual 2: Sektor Perniagaan Berisiko Tinggi Terlibat Dengan Cash Economy**

Australia	Belgium	Kanada	Sweedeen	UK	US
Pembinaan	Pembinaan	Pembinaan; Ubahsuai	Pembinaan	Pembinaan	Automotif
Teksi	Perjudian	Perubatan	Restoran	Katering	Pembinaan
Restoran; Kafe	E-Commerce	Agrikultur	Pendandan Rambut	Pendandan Rambut	Kesihatan
Salon; Pusat Kecantikan	Pengangkutan	Perikanan	Teksi		Perubatan
Perkhidmatan Pembersihan	Telekomunikasi	Penginapan	Pengangkutan	Penjagaan Taman	Hartanah

Sumber: Rand Europe dan NAO (2008)

Selain literatur cukai, justifikasi pemilihan entiti PKS sektor pembinaan turut disokong oleh data-data ekonomi dan statistik Malaysia menunjukkan industri pembinaan mempunyai tahap kelangsungan aktiviti perniagaan yang tinggi. Perkara ini dapat diperhatikan pada peruntukkan belanjawan kerajaan Malaysia 2015 untuk tujuan pembangunan adalah sebanyak RM50.5 bilion, 50.49% daripada keseluruhan kutipan cukai LHDNM pada 2013 datangnya daripada cukai

## METODOLOGI KAJIAN

Pelbagai kaedah kajian telah digunakan oleh para pengkaji lepas dalam melakukan kajian seperti pemerhatian, temubual, dan data sekunder yang jelas memperlihatkan bahawa kaedah pemerhatian merupakan salah satu pendekatan yang paling kerap digunakan (Hijattulah Abdul Jabbar 2009; Mohd Rizal Palil 2010). Bagi tujuan pelaksanaan kajian ini, pendekatan data sekunder

digunakan oleh pengkaji di mana kaedah sama turut digunapakai oleh pengkaji terdahulu dalam bidang percukaian di Malaysia seperti Nor Azrina Yusof et al. (2014) dan Ming Ling Lai et al. (2013). Pemilihan kaedah ini mempunyai kelebihan serta kebaikan iaitu penjimatan masa dan mempunyai darjah kepercayaan yang lebih tinggi (Cowton 1998). Melalui kaedah data sekunder juga pengkaji dapat mengelakkan diri daripada berdepan dengan masalah pengumpulan data seperti gagal mendapatkan bilangan respons yang mencukupi dan data yang berat sebelah (Bajada dan Schneider 2007).

Data sekunder yang digunakan dalam kajian ini diperolehi daripada tiga sumber yang berbeza. Sumber data sekunder yang pertama adalah daripada Jabatan Perangkaan Malaysia (JPM) yang berkaitan dengan perincian nama perniagaan, alamat premis perniagaan, nombor untuk dihubungi, saiz perniagaan, dan jenis perniagaan bagi PKS sektor pembinaan di Malaysia hingga tahun berakhir 31hb Disember 2013. Sumber kedua adalah daripada Suruhanjaya Syarikat Malaysia (SSM) berhubung nama pemilik perniagaan

PKS dan syarikat PKS sektor pembinaan Malaysia kerana JPM tidak mempunyai rekod nama pemilik perniagaan yang berstatus milikan tunggal dan perkongsian. Sumber ketiga adalah daripada pihak LHDNM yang memberikan kebenaran capaian ke dalam sistem yang membolehkan pengkaji melakukan semakan bagi mengenal pasti bentuk-bentuk ketidakpatuhan cukai dalam kalangan entiti PKS sektor pembinaan di Malaysia bagi tahun taksiran 2013.

Proses pengumpulan data bermula dengan mengemukakan permohonan kepada pihak JPM bagi mendapatkan 500 sampel entiti PKS sektor pembinaan Malaysia. Pemilihan sampel perlu menggunakan kaedah yang betul supaya mewakili dua ciri utama PKS Malaysia, iaitu saiz perniagaan dan jenis perniagaan. Justeru pemilihan 500 sampel PKS dilakukan berdasarkan kaedah pensampelan kebarangkalian rawak berstrata/berlapis. Kaedah ini menurut Fauzi Hussin, Jamal Ali & Mohd Saifoul Zamzuri Noor (2014) amat relevan bagi data kajian yang mempunyai beberapa kumpulan dan bilangan yang berbeza. Tindakan berikutnya adalah

mengemas kini data yang diperoleh daripada pihak JPM untuk mengetahui pemilik bagi setiap entiti perniagaan PKS. Oleh itu permohonan maklumat seterusnya dikemukakan kepada pihak SSM bagi mendapatkan informasi yang berkaitan dengan pemilik perniagaan dan syarikat PKS. Peringkat terakhir ialah semakan silang antara perincian data yang diperoleh daripada pihak JPM dan pihak SSM dengan maklumat percukaian milik LHDNM.

Pengukuran data dilakukan melalui proses semakan silang yang dilakukan ke atas setiap sampel bagi menentukan gelagat cukai (patuh cukai, tidak patuh cukai atau *cash economy*) dan bentuk-bentuk ketidakpatuhan cukai (sama ada tidak daftar, tidak atau lewat hantar borang cukai, tidak atau kurang lapor sumber pendapatan mahupun tidak atau lewat membayar cukai). Proses semakan silang hanya boleh dilakukan selepas memperoleh kebenaran daripada pihak LHDNM bagi membuat capaian ke dalam sistem cukai. Kebenaran untuk membuat capaian ke dalam sistem cukai amat diperlukan supaya dapatan kajian yang diperoleh tidak melanggar dasar serta polisi LHDNM dan yang paling penting

tidak menyalahi peruntukan Seksyen 138 ACP 1967 yang berkaitan dengan kerahsiaan maklumat para pembayar cukai.

Semakan silang yang dilakukan telah melalui beberapa langkah, iaitu semakan nombor cukai pendapatan bagi mengenal pasti sama ada entiti PKS telah mendaftar dengan LHDNM mahupun tidak, menyemak status penghantaran borang cukai sama ada telah hantar, lewat hantar mahupun tidak hantar, menyemak perincian sumber pendapatan yang dilaporkan untuk menentukan entiti perniagaan atau syarikat PKS telah melaporkan semua pendapatan, dan menyemak status pembayaran cukai sama ada membuat bayaran penuh pada masa, lewat membuat pembayaran mahupun langsung tidak membuat pembayaran. Melalui proses semakan silang ini, dapatan kajian boleh memperincikan bilangan entiti PKS sektor pembinaan yang patuh cukai, tidak patuh cukai dan terlibat dengan *cash economy*. Melalui pendekatan yang sama juga, dapatan kajian turut dapat memberi perincian lanjut yang berkaitan dengan bentuk-bentuk ketidakpatuhan cukai yang dilakukan oleh setiap entiti PKS.

Maklumat daripada hasil semakan silang ini merujuk kepada tahun taksiran 2013 (perolehan pendapatan dalam tahun 2013 dan menutup akaun perniagaan dalam tahun 2013). Bagi menjaga kerahsiaan maklumat yang diperolehi, kajian ini tidak menyenaraikan secara spesifik siapa pelaku yang terlibat dengan ketidakpatuhan cukai, khususnya *cash economy*. Maklumat yang diterbitkan melalui kajian adalah secara kelompok untuk tujuan akademik tanpa merujuk kepada mana-mana pihak yang tertentu.

### DAPATAN KAJIAN

Dapatan kajian ini adalah hasil analisis data entiti PKS sektor pembinaan dari pihak JPM, kemudian dikemaskini dengan pihak SSM dan akhirnya proses semakan silang dengan pengkalan data LHDNM. Bagi memenuhi matlamat kajian, hasil kajian diterjemahkan melalui pembentangan empat jadual iaitu; Jadual 3 yang menunjukkan perincian

deskriptif data PKS sektor pembinaan Malaysia; Jadual 4 memaparkan gelagat cukai PKS sektor pembinaan; Jadual 5 memperincikan bentuk-bentuk ketidakpatuhan cukai; dan Jadual 6 menghuraikan kategori pelaku *cash economy* dan ketidakpatuhan cukai di kalangan PKS sektor pembinaan Malaysia.

Dapatan kajian pertama pada Jadual 3 di bawah merupakan perincian deskriptif bagi 500 entiti PKS sektor pembinaan di Malaysia yang telah dipilih sebagai sampel kajian. Sampel kajian entiti PKS sektor pembinaan Malaysia yang diambil mewakili dua kategori yang selari dengan definisi MPPK iaitu saiz perniagaan dan jenis perniagaan. Berdasarkan kategori saiz, entiti perniagaan bersaiz kecil mendominasi bilangan PKS sektor pembinaan sebanyak 206 entiti, diikuti pula oleh saiz mikro sebanyak 194 entiti perniagaan, dan saiz sederhana sebanyak 100 entiti perniagaan.

**Jadual 3: Perincian Deskriptif PKS Sektor Pembinaan Malaysia**

Jenis Perniagaan / Saiz Perniagaan	Mikro	Kecil	Sederhana	Jumlah
Kontraktor Rumah Kediaman	36	30	20	86
Kontraktor bukan Rumah Kediaman	42	40	26	108
Kontraktor Kejuruteraan Awam	48	37	20	105
Kontraktor Pertukangan Khas	68	99	34	201
<b>Jumlah</b>	<b>194</b>	<b>206</b>	<b>100</b>	<b>500</b>

Sebaliknya untuk jenis perniagaan, aktiviti perniagaan pertukangan khas paling tinggi bilangannya dengan 201 entiti, diikuti pula oleh aktiviti perniagaan bukan rumah kediaman sebanyak 108 entiti, perniagaan kejuruteraan awam sebanyak 105 entiti, dan perniagaan rumah kediaman sebanyak 86 entiti.

Secara ringkas Jadual 4 di bawah memaparkan gelagat cukai PKS sektor pembinaan samada patuh cukai atau tidak patuh cukai berdasarkan empat ciri-ciri perniagaan iaitu saiz perniagaan, jenis perniagaan, status

pemilikan perniagaan dan gender pemilik perniagaan. Penjelasan gelagat cukai ini secara langsung menjawab matlamat pertama kajian iaitu untuk mengenalpasti gelagat cukai PKS sektor pembinaan samada patuh cukai atau tidak patuh cukai.

Jadual 4 menunjukkan 44% entiti PKS sektor pembinaan tidak patuh cukai bersamaan dengan 222 daripada 500 entiti. Berdasarkan ciri pertama iaitu saiz, PKS bersaiz mikro paling dominan tidak patuh cukai iaitu 48% dan turut mencatatkan bilangan entiti

**Jadual 4: Gelagat Cukai PKS Sektor Pembinaan di Malaysia**

Tindakan Pembayar Cukai	Patuh Cukai	%	Tidak Patuh Cukai	%	Jumlah
<b>Saiz Perniagaan:</b>					
Mikro	117	52%	108	48%	225
Kecil	99	57%	76	43%	175
Sederhana	62	62%	38	38%	100
<b>Jenis Perniagaan:</b>					
Kontraktor Rumah Kediaman	47	55%	39	45%	86
Kontraktor bukan Rumah Kediaman	62	57%	46	43%	108
Kontraktor Kejuruteraan Awam	47	45%	58	55%	105
Kontraktor Pertukangan Khas	122	61%	79	39%	201
<b>Pemilikan Perniagaan:</b>					
Milikan Tunggal	111	51%	105	49%	216
Perkongsian	27	49%	28	51%	55
Syarikat Sdn Bhd	140	61%	89	39%	229
<b>Gender:</b>					
Lelaki	178	55%	144	45%	322
Wanita	9	33%	18	67%	27
Lelaki dan Wanita	91	60%	60	40%	151
<b>Jumlah</b>	<b>278</b>		<b>222</b>		<b>500</b>
<b>Peratusan</b>	<b>56%</b>		<b>44%</b>		<b>100%</b>

tertinggi iaitu 108. Untuk ciri kedua iaitu jenis perniagaan, penilaian dari aspek bilangan entiti mendapati perniagaan pertukangan khas merekodkan bilangan tertinggi iaitu 79 entiti. Sebaliknya jika penilaian dibuat dari sudut peratusan, perniagaan kejuruteraan awam mempunyai pecahan terbesar iaitu 55%. Situasi yang sama dapat diperhati pada ciri pemilikan perniagaan dan gender pemilik perniagaan. Pada ciri pemilikan perniagaan entiti PKS yang menjalankan perniagaan secara milikan tunggal mencatatkan bilangan

wanita mewakili komposisi yang lebih besar iaitu 67%.

Dapatan kajian melalui Jadual 5 di bawah menghuraikan bentuk-bentuk tidak patuh cukai PKS sektor pembinaan Malaysia kepada empat keadaan iaitu tidak daftar, tidak atau lewat hantar borang, tidak atau kurang lapor dan tidak atau lewat bayar cukai. Perbincangan hasil kajian ini seterusnya menjawab matlamat kajian yang kedua iaitu mengenalpasti bentuk-bentuk tidak patuh cukai yang dilakukan oleh PKS

**Jadual 5: Bentuk-Bentuk Tidak Patuh Cukai PKS Sektor Pembinaan di Malaysia**

Kategori Pembayar Cukai	Bentuk-Bentuk Tidak Patuh Cukai				Jumlah
	Tidak Daftar	Tidak/Lewat Hantar Borang	Tidak/Kurang Lapor	Tidak/Lewat Bayar	
Kontraktor Rumah Kediaman	8 (21%)	22 (56%)	0	9 (23%)	39
Kontraktor bukan Rumah Kediaman	11(24%)	29 (63%)	1 (2%)	5 (11%)	46
Kontraktor Kejuruteraan Awam	14 (24%)	36 (62%)	4 (7%)	4 (7%)	58
Kontraktor Pertukangan Khas	17 (22%)	50 (63%)	6 (7.5%)	6 (7.5%)	79
<b>Jumlah</b>	<b>50</b>	<b>137</b>	<b>11</b>	<b>24</b>	<b>222</b>
<b>Peratus</b>	<b>22%</b>	<b>62%</b>	<b>5%</b>	<b>11%</b>	<b>100%</b>

tertinggi (105 entiti) sebaliknya dari segi pecahan, perkongsian menunjukkan pecahan yang lebih besar iaitu 51%. Bagi ciri gender bilangan lelaki adalah paling tinggi tidak patuh cukai tetapi jika statistik peratusan diambil kira gender

sektor pembinaan.

Jadual 5 di atas memperincikan tindakan tidak patuh cukai yang dilakukan oleh 222 entiti PKS sektor pembinaan yang telah ditunjukkan pada Jadual

4 sebelum ini. Hasil kajian mendapati bentuk ketidakpatuhan yang tertinggi di kalangan PKS sektor pembinaan adalah 'tidak atau lewat hantar borang cukai' sebanyak 137 entiti (62%), diikuti oleh 'tidak mendaftar sebagai pembayar cukai' sebanyak 50 entiti (22%), 'tidak atau lewat membayar cukai pendapatan' sebanyak 24 entiti (11%), dan yang terendah, iaitu 'tidak atau kurang lapor pendapatan' sebanyak 11 entiti (5%). Selain dari itu, Jadual 5 turut menunjukkan peratus tindakan ketidakpatuhan cukai bagi setiap jenis perniagaan PKS sektor pembinaan.

Bagi bentuk tindakan tidak daftar, perniagaan bukan rumah kediaman dan kejuruteraan awam didapati paling dominan iaitu 24%. Berikutnya untuk bentuk tindakan tidak atau lewat hantar borang, jenis perniagaan bukan

rumah kediaman dan pertukangan khas didapati paling dominan, iaitu 63%. Seterusnya bagi bentuk tindakan tidak atau kurang lapor pendapatan, memperlihatkan kesalahan ini paling kurang dilakukan oleh PKS sektor pembinaan. Peratus tertinggi hanyalah 7.5% bagi pertukangan khas, manakala 7% bagi kejuruteraan awam. Bentuk tindakan ketidakpatuhan cukai yang terakhir merujuk kepada tidak atau lewat bayar yang menunjukkan jenis perniagaan rumah kediaman paling tinggi terlibat iaitu 23%.

Hasil kajian berikutnya menghuraikan penglibatan entiti PKS sektor pembinaan dengan aktiviti ketidakpatuhan cukai dan *cash economy* yang merupakan lanjutan dari perbincangan gelagat cukaidan bentuk-bentuk ketidakpatuhan

**Jadual 6: Ketidakpatuhan Cukai dan Cash Economy PKS Sektor Pembinaan Malaysia**

Tindakan Pembayar Cukai	Ketidakpatuhan Cukai	Cash Economy	Jumlah
<u>Saiz Perniagaan:</u>			
Mikro	11 (5%)	97 (44%)	108
Kecil	13 (6%)	63 (28%)	76
Sederhana	11 (5%)	27 (12%)	38
<u>Jenis Perniagaan:</u>			
Kontraktor Rumah Kediaman	11 (5%)	28 (13%)	39
Kontraktor bukan Rumah Kediaman	7 (3%)	39 (18%)	46
Kontraktor Kejuruteraan Awam	6 (2%)	52 (23%)	58
Kontraktor Pertukangan Khas	11 (5%)	68 (31%)	79
<b>Jumlah</b>	<b>35 (16%)</b>	<b>187 (84%)</b>	<b>222</b>

cukai. Jadual 6 memperincikan tahap penglibatan berdasarkan saiz dan jenis perniagaan PKS lantas mencapai matlamat kajian yang ketiga iaitu mengukur sejauh mana penglibatan entiti PKS sektor pembinaan terhadap aktiviti ketidakpatuhan cukai dan *cash economy*.

Secara ringkas Jadual 6 menunjukkan 222 entiti PKS melakukan kesalahan cukai di mana 84% (187 entiti) terlibat dengan *cash economy* dan 16% (35 entiti) melakukan ketidakpatuhan cukai. Pelaku *cash economy* yang tertinggi berdasarkan saiz perniagaan adalah entiti PKS bersaiz mikro iaitu 97 entiti, diikuti saiz kecil 63 entiti dan saiz sederhana 71 entiti. Manakala pelaku *cash economy* berdasarkan jenis perniagaan pula adalah pertukangan khas 68 entiti, kejuruteraan awam 52 entiti, bukan rumah kediaman 39 entiti dan rumah kediaman 28 entiti. Sementara untuk isu ketidakpatuhan cukai, bilangan pelaku adalah seimbang iaitu antara 6 hingga 13 entiti bagi setiap kategori PKS sektor pembinaan. Komposisi tertinggi bagi saiz perniagaan merujuk kepada saiz kecil dengan 13 entiti yang terlibat, manakala untuk jenis perniagaan

kontraktor rumah kediaman dan pertukangan mencatatkan bilangan yang dominan iaitu 11 entiti.

## PERBINCANGAN

Sehingga kini kajian cukai yang menyentuh isu ketidakpatuhan cukai telah dilakukan seperti takrifan ketidakpatuhan cukai (Kirchler 2007), kronologi ketidakpatuhan cukai (Andreoni et al. 1998), entiti perniagaan tidak patuh cukai (Nor Azrina Yusof et al. 2014), dan faktor-faktor ketidakpatuhan cukai (Mohd Rizal Palil & Ahmad Fariq Mustapha 2011; Mohd Rizal Palil 2010). Perkara yang sama dapat diperhatikan terhadap isu *cash economy* di mana beberapa kajian juga telah dilakukan antaranya; definisi *cash economy* (Summer 1996), klasifikasi aktiviti (Lippert & Walker 1997) dan faktor *cash economy* (Buehn & Schneider 2012; Schneider 2005). Walaupun kajian telah dilakukan terhadap kedua-dua isu percukaian tersebut tetapi tahap pematuhan cukai di Malaysia masih pada tahap sederhana dan membimbangkan (Belkaoui 2004; IMD 2013).

Kajian lepas berhubung ketidakpatuhan

cukai didapati kurang membincangkan bentuk-bentuk ketidakpatuhan cukai sama ada membabitkan pembayar cukai individu mahupun entiti perniagaan khususnya terhadap PKS sektor pembinaan. Penjelasan terhadap isu ini perlu dilakukan memandangkan penyelidik terdahulu mentafsirkan pematuhan cukai melibatkan komponen seperti daftar, hantar, lapor, dan bayar (Brown & Mazur 2003). Selain dari jurang kajian terhadap isu ketidakpatuhan cukai, *cash economy* turut mempunyai isu yang memerlukan penjelasan lanjut. Perkara ini dinyatakan dalam kajian Bhattacharyya (1999) dan Schneider (2005) yang mendapati penyelidik masih berselisih pandangan berhubung definisi, penggunaan istilah dan kaedah pengukuran. Literatur cukai terdahulu didapati kurang membincangkan pelaku yang dominan terlibat dengan aktiviti ketidakpatuhan cukai khususnya *cash economy* di Malaysia.

Matlamat kajian menjurus kepada tiga perkara utama iaitu mengenalpasti gelagat cukai, mengenalpasti bentuk-bentuk tidak patuh cukai dan mengukur sejauh mana penglibatan entiti PKS sektor pembinaan dengan aktiviti ketidakpatuhan cukai dan *cash*

*economy*. Berdasarkan sampel 500 entiti PKS sektor pembinaan yang dikaji, hampir separuh iaitu 44% (222 entiti) tidak patuh cukai untuk tahun 2013. Manakala dari jumlah 222 entiti PKS yang didapati tidak patuh cukai, 187 entiti PKS terlibat dengan aktiviti *cash economy* dan baki 35 adalah ketidakpatuhan cukai. Dapatan kajian ini menunjukkan tahap tidak patuh cukai di Malaysia sangat membimbangkan oleh kerana majoriti entiti PKS yang tidak patuh cukai terlibat dengan *cash economy* berbanding ketidakpatuhan cukai. Justeru dapatan kajian ini mengesahkan keberadaan aktiviti *cash economy* di Malaysia (ANAO 2001) dan pada masa sama bersetuju dengan kajian Bajada dan Schneider (2007) iaitu saiz *cash economy* di Malaysia adalah pada tahap yang signifikan.

Setelah mengenalpasti gelagat cukai dan tahap penglibatan, tindakan seterusnya adalah untuk melihat keadaan atau bentuk-bentuk tindakan tidak patuh cukai yang kerap dilakukan. Hasil kajian ini mendapati bentuk-bentuk perlakuan tidak patuh cukai menjurus kepada perlakuan tidak atau lewat menghantar borang dengan bilangan 137 entiti PKS terlibat (62%),

diikuti oleh tidak mendaftar sebanyak 50 entiti (22%), tidak atau lewat membayar cukai 24 entiti (11%) dan tidak atau kurang lapor 11 entiti (5%). Keadaan ini menjelaskan bentuk-bentuk tidak patuh cukai yang paling kerap dilakukan oleh PKS sektor pembinaan di Malaysia adalah tidak atau lewat menghantar borang cukai manakala tidak atau kurang lapor pendapatan merupakan tindakan yang paling kurang dilakukan. Justeru takrifan Brown dan Mazur (2003), ATO (2003) dan peruntukan ACP 1967 berkaitan patuh dan tidak patuh cukai adalah relevan serta sesuai untuk mengenalpasti tingkahlaku individu atau entiti terhadap cukai khususnya bagi kajian ini.

Dalam kajian Williams (2007, 2009) menyatakan perniagaan bersaiz kecil lebih cenderung melakukan kesalahan cukai. Manakala kajian Nor Azrina Yusof et al. (2014) dan Ming Ling Lai et al. (2013) pula mendedahkan sektor pembinaan paling dominan tidak patuh cukai. Merujuk kepada hasil kajian ini entiti PKS bersaiz mikro paling banyak serta tinggi peratusan terlibat dengan *cash economy* iaitu 97 entiti (44%). Manakala untuk ketidakpatuhan cukai, entiti perniagaan bersaiz

kecil paling banyak terlibat dengan 13 entiti. Sementara untuk kriteria jenis perniagaan, entiti perniagaan pertukangan khas paling banyak terlibat dengan *cash economy* iaitu 68 entiti. Manakala untuk aktiviti ketidakpatuhan cukai, jenis perniagaan rumah kediaman dan pertukangan khas adalah paling dominan dengan bilangan 11 entiti yang terlibat. Selain menyokong dapatan kajian terdahulu saiz kecil dan sektor pembinaan yang terlibat dengan aktiviti tidak patuh cukai, kajian ini turut memberi nilai tambah melalui perincian jenis-jenis perniagaan dalam sektor pembinaan yang melakukan ketidakpatuhan cukai dan *cash economy*.

Selain dapatan kajian utama, dapatan kajian lain yang diperolehi adalah faktor gender yang mempengaruhi ketidakpatuhan cukai. Kajian oleh Spicer dan Becker (1980) menjelaskan faktor gender mempunyai hubungan yang signifikan dengan isu ketidakpatuhan cukai. Sebaliknya kajian Kasipillai dan Hijattulah Abdul Jabbar (2006) yang mendapati gender lelaki dan wanita tidak menunjukkan perbezaan yang signifikan terhadap ketidakpatuhan cukai tetapi bersetuju bahawa gender lelaki paling tinggi tidak patuh

berbanding wanita (McGee & Tyler 2006). Hasil kajian ini menunjukkan gender lelaki paling tinggi terlibat dalam ketidakpatuhan cukai iaitu 144 berbanding wanita hanya sebanyak 18. Walau bagaimanapun apabila entiti PKS itu mempunyai gabungan gender lelaki dan wanita, didapati bilangan wanita yang tidak patuh cukai meningkat kepada 60 dan angka ini lebih tinggi berbanding entiti PKS yang diuruskan oleh wanita yang tidak patuh cukai.

## RUMUSAN

Kajian ini berperanan memberi nilai tambah kepada literatur cukai melalui penggunaan kaedah kajian yang berbeza dan dapatan kajian yang kurang dijelaskan oleh pengkaji lepas. Kaedah kajian yang digunakan melibatkan beberapa kaedah iaitu perolehan data sekunder, penambahbaikan data, dan semakan silang data. Dapatan kajian daripada kajian ini turut menghuraikan gelagat cukai, bentuk-bentuk ketidakpatuhan cukai, pelaku aktiviti *cash economy* dan ketidakpatuhan cukai, dan ciri-ciri percukaian entiti PKS sektor pembinaan di Malaysia. Dapatan kajian turut mengenalpasti pihak yang bukan sahaja tidak menghantar borang

cukai, sebaliknya juga merangkumi entiti yang tidak termasuk dalam pengkalan data LHDNM.

Secara ringkasnya, entiti PKS sektor pembinaan didominasi oleh segmen perniagaan pertukangan khas, diikuti oleh kejuruteraan awam, bukan rumah kediaman, dan rumah kediaman. Perincian data kajian menunjukkan bahawa majoriti saiz entiti PKS berskala kecil dan mikro dengan status pemilikan perniagaan ialah milikan tunggal dan syarikat. Daripada 500 sampel PKS yang dianalisis, 222 (44%) entiti perniagaan tidak patuh cukai dan majoriti daripada entiti tidak patuh cukai ini terlibat dengan aktiviti *cash economy* (84%). Gelagat cukai samada patuh cukai, tidak patuh cukai dan *cash economy* dapat ditentukan melalui penjelasan terhadap bentuk-bentuk ketidakpatuhan cukai iaitu daftar, hantar, lapor dan bayar. Analisis kajian menunjukkan majoriti entiti PKS tidak patuh cukai disebabkan 'tidak atau lewat menghantar borang cukai (62%), dan 'tidak mendaftar' sebanyak (22%). Dapatan kajian juga menunjukkan jenis perniagaan dalam PKS sektor pembinaan Malaysia yang dominan tidak patuh cukai adalah kejuruteraan awam (90%). Kajian ini

turut mendapati bahawa gender lelaki masih kekal sebagai golongan yang dominan tidak patuh cukai berbanding wanita, namun penglibatan wanita dalam ketidakpatuhan cukai meningkat apabila bekerjasama dengan lelaki dalam menguruskan perniagaan.

Selain daripada sumbangan kepada bidang ilmu, dapatan kajian daripada kajian ini turut bermanfaat untuk dijadikan sebagai input kepada LHDNM dalam usaha untuk menambah baik aktiviti penguatkuasaan. Melalui dapatan kajian daripada kajian ini, segmentasi perniagaan yang bermasalah dapat dikenal pasti, iaitu industri (pembinaan), jenis-jenis perniagaan (bukan kejuruteraan awam), dan bentuk-bentuk ketidakpatuhan (tidak daftar dan tidak atau lewat hantar). Rumusannya, dapatan kajian memberikan perspektif baharu kepada LHDNM untuk meningkatkan kecekapan aktiviti penguatkuasaan, mengurangkan kadar ketidakpatuhan cukai oleh golongan yang tidak pernah membayar cukai khususnya PKS sektor pembinaan dan meningkatkan hasil kutipan cukai.

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## **Users Evaluation on the Effectiveness of Enterprise System in Jabatan Akauntan Negara Malaysia (JANM)**

**Fazlina Hj. Mohd Ali**

Faculty of Computer and Mathematical  
Sciences  
Universiti Teknologi MARA

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### **ABSTRACT**

Several organizations had reported success and significant gains resulting from Enterprise System (ES) implementation. In the literature, the term ES is also refers to Enterprise Resource Planning (ERP). It is an integrated system development to meet the needs of internal departments in an organization (Strong & Volkoff, 2010). In this study, Jabatan Akauntan Negara has been chosen as the research setting to evaluate the effectiveness of ERP System from the users' perspectives in supporting learning, productivity and decision making. In this context of study, the ERP System adopted in Jabatan Akauntan Negara Malaysia (JANM) is the Government Financial

and Management Accounting System (GFMAS). The Enterprise System Success (ESS) Model developed by Sedera et al. (2004) was used in this study to measure the effectiveness of ERP System in JANM in supporting learning, productivity and decision making. The results showed that 78.3% of the respondents perceived that the ERP System in JANM is effective and a reliable system for learning, improving productivity and supporting decision making. The findings are important to get a better understanding about the ERP System and how it may bring benefits to the organization.

**Keywords:** Enterprise System, Enterprise Resource Planning, implementation, effectiveness, individual impact.

### **INTRODUCTION**

In the information system literature, the terms Enterprise System (ES) and Enterprise Resource Planning (ERP) are synonyms and used interchangeably. It refers to an integrated system development to meet the need of internal departments in an organization (Strong & Volkoff, 2010). The ES or ERP,

is deployed by many organizations to enhance their business process.

Despite the fact that several organizations reported success and significant gains resulting from enterprise system implementation, however many others encounter substantial losses (Gable et al., 2006). Therefore, it is important for organisations to conduct evaluation after ES is implemented in order to achieve organisational goals.

There are many factors that can be evaluated in reviewing the impact of ES implementation, but evaluating the overall impact of ES is preferred. The overall impact refers to the successfulness or effectiveness of the ES in enhancing organizational goals (Markus & Tanis, 2000). In the Information System literature, Grover et al. (2003) defined the term "success" synonymously with effectiveness, and agreed with Thong et al. (1994) when they specified the effectiveness of an ES as the extent to which an ES actually contributes to achieving organizational goals.

Considering the extensive need of

the ES evaluation, the research area of ES effectiveness became most essential for IT practitioners. Gable et al. (2003) explored on the diffusion of ERP as one of the ES in the region and discussed on their adoption success in firms. They discovered the issues of ERP success by sampling the views of private firms in two countries in the region. Besides that, Shang and Seddon (2002) reveal on the benefits of ES from the business perspectives. Another good research was focusing on the impact of Knowledge Integration (KI) on ES (Zakaria, 2011).

The study was done to understand the influence of KI effectiveness among ES end-users and operational success of the ES. There are also research done focusing on the assessment of ERP from users' perspectives; such as a case study to measure the success in ERP implementation from the technical and user perspectives (Al-Mudimigh et al, 2011). The author has pertinent reason to choose or select those perspectives; because the ERP System implementation can only be successful if both technical and end-users are satisfied, as they are playing major roles in the business

operations.

Further, it was found in the Information System literature that there are many evaluation models used to evaluate the effectiveness of ES or ERP. The first model developed by DeLone et al. (1992) in their studies on integrated view of IS Success concept. The model has been tested by many researchers and it was found as having some limitations because the model focuses on specific ERP characteristics (Gable; Sedera & Chan, 2003). Due to these limitations, another model was developed by Gable et al. (2006) known as ERP System Success (ESS) model. The ESS Model has been built based on literature review and exploratory survey to meet the ERP characteristics (Zach, 2010). The ESS model has been further validated by Sedera et al. (2004) for construct validity.

In this study, the ESS Model (Sedera et al. (2004) is used to evaluate the effectiveness of ERP System in an organization. Jabatan Akauntan Negara Malaysia (JANM) has been chosen as the research setting to evaluate the effectiveness of ERP System. The ERP System in JANM is the Government

Financial and Management Accounting System (GFMAS). The ESS model has been employed in a number of studies confirming its relevance and validity (Gable et al., 2006). The ESS model offers an exhaustive measurement technique of ES system success (Sedera et al, 2004) and is widely used to find opinions different levels of users and how they prioritize their satisfaction in using ES in their organization.

## LITERATURE REVIEW

### Individual Impact & Effectiveness

In the international literature on IS, individual impact encompasses impacts on individual in organization who uses the information system (Sedera & Darshana 2006). In this study, individual impact is the consequences to an individual when using ERP System in organization. Individual impact includes better understanding of the system, improving users' job productivity, and changing the decision maker's perception of the usefulness of the system (DeLone & McLean, 1992).

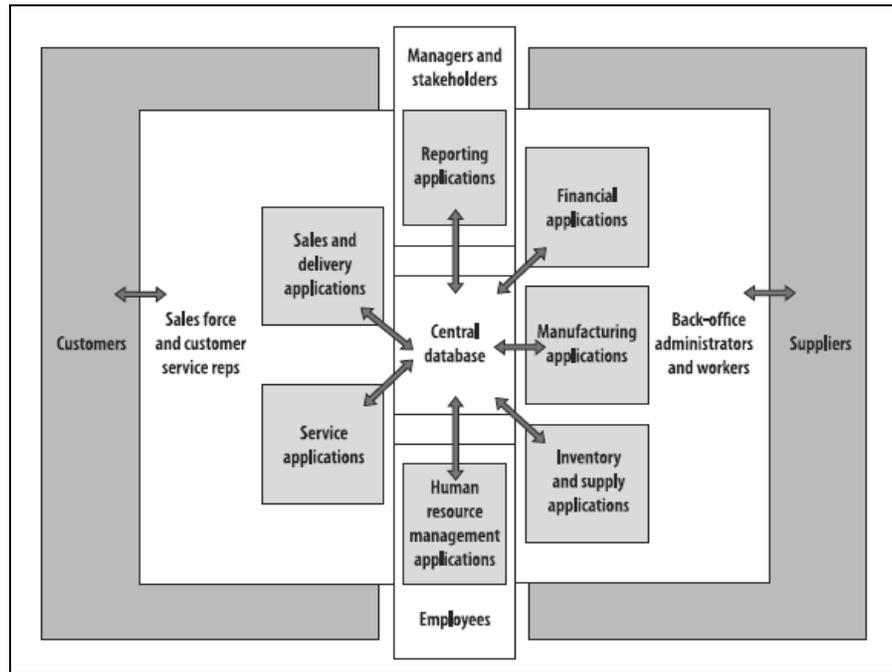
On the other hand, effectiveness in this study is about pursuing the overall success of the ERP System implementation from users' perception, which in turn, contributes to the daily productivities. Effectiveness refers to the success of utilization of such systems to enhance organizational goals. In the information system literature, Grover et al., (1996) and Summer (2000) defined the term "success" as having a similar meaning with "effectiveness". In addition, Thong et al. (1994) further added that effectiveness is also about the extent to which an information system actually contributes to achieving organizational goals.

### **Enterprise System (ES) & Enterprise Resource Planning (ERP)**

Technology plays a major role in today's business environment. One of the latest technologies demanded by many organizations is Enterprise System (ES). ES is defined as an integration of software and application packages, using computerized data to support business process and to produce business reports and data (Markus, Petrie, & Axline, 2001). ES is known as a complex comprehensive

software, designed to integrate business processes and functions. It presented a holistic view of a business by permitting the sharing of common data and practices in a real-time environment (Davenport, 2000; Markus & Tanis, 2000). Davenport (1998) stated that businesses globally are adopting ES for a variety of reasons, including legacy systems replacement, cost reductions and faster information transactions, among others. Seems like ES implementation continues to grow everywhere despite the difficulties and risks encountered by organizations when they accept and implement these systems (Davis, 2005).

A good ES should have a central database that will enable data retrieval for various departments or branches from all over the world. Figure 1 shows the Anatomy of ES (Davenport, 1998). When new data is entered in one place, all related information should be updated automatically. Moreover, ES facilitate integrations between departments and allow information sharing. Internal departments will be able to use various data simultaneously without any interruption and delay as well.



**Figure 1 Anatomy of Enterprise System**

ES usually used by enterprises with large scale systems, that consisting of integrated packages such as, ERP, CRM and SCM. ERP is always being the top ranked packages on demand in today's markets. In an effort to develop global operations, many corporations are implementing global information systems such as ERP System. This integrated system, provides an increased level of support to the core business processes (Hawking, 2007). Furthermore, it integrates the entire organization which consists of

internal and external management information (Albadri & Abdallah, 2009). Seddon (1997) explained that ERP System serves many industries to automate their operations in supply chain management, inventory control, manufacturing scheduling and production, sales support, customer relationship management, financial and cost accounting, human resources and other data oriented management process. However, maintaining performance of the ERP System is a real challenge and perceived to be

success in every organization (Albadri et al., 2009).

### Significant of ERP System Evaluation

There are several studies emphasized on the needs of ERP evaluation although the perspective of evaluation varies. As highlighted by Ehie and Madsen (2005), the evaluation of ERP system is important to identify critical issues particularly after the implementation. In addition, this evaluation may provide valuable clues to help project managers to improve the chances of success (Wong & Tien, 2007). In the Information System literature, many models had been proposed to explain ERP System success. The ERP System success is often interchangeable with the terms such as effectiveness or performance. Because there was no specific

model that can be used to measure ERP System effectiveness, many researchers have argued for the use of comprehensive measures (Wixom, 2006). In a study by Wixom (2006), the ERP System success has been investigated in two main research streams: user acceptance and user satisfaction. However, according to Petter et al. (2008), acceptance is not equivalent to success for the reason that once an ERP system is implemented in an organization, the employees are often required to use the system, regardless whether they accepted the systems or not. Because of that, user acceptance does not provide a relevant information about the success of the ERP System.

On the other hand, the first integrated study on ERP System success was done by DeLone et al. (1992). Based on

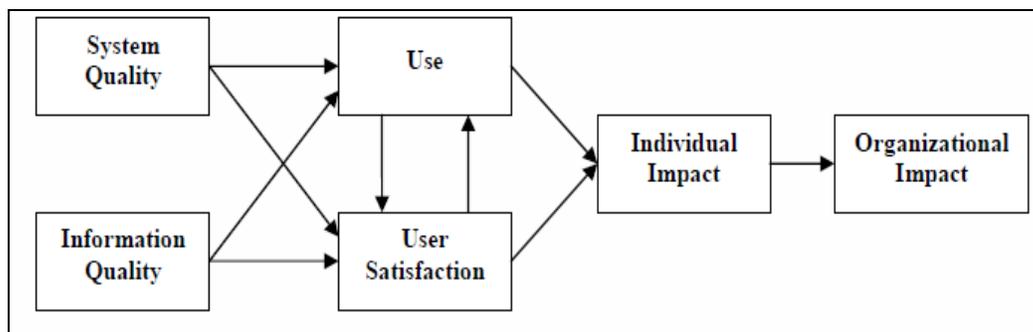


Figure 2 D&M Model (DeLone et al., 1992)

the literature, the authors developed a model called D&M Model that integrates six categories of ERP System success: systems quality, information quality, use, user satisfaction, individual impact, and organizational impact (See Figure 2).

Other researchers explained that the models developed for measuring ERP System success as found in the literature were developed in a traditional context and were not entirely appropriate for measuring ERP System success (Gable et al. 2003). Gable et al. (2003) then developed a specific measurement model called ERP System Success measurement model. The model has been built based on literature review and exploratory survey. It has four dimensions: information quality, system quality, individual impact, and organizational impact. The researchers emphasized that the model does not propose any causality effects between the dimensions, but it is purely a measurement model for assessing the ERP System success.

The model by Gable et al. (2003) has been further validated by Sedera et al. (2004). Some items have been added to provide stronger construct validity.

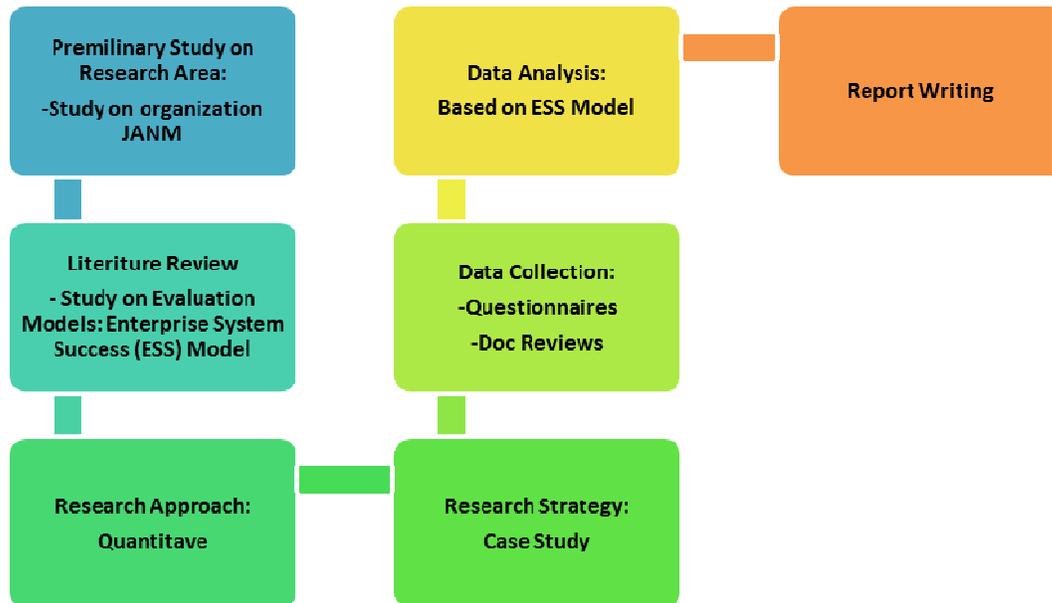
Specifically, the number of items in each dimension are as follows: information quality (6), system quality (9), individual impact (4), and organizational impact (8).

For the purpose of this study, the ESS Model by Sedera et al. (2004) was used to measure the effectiveness of ERP System. The model has been chosen to measure the levels of acceptance and importance of the ERP System in the organization.

### **Research Design**

The research design is shown in Figure 3. It started with a preliminary study of JANM as an organization, conducting literature review, collecting and analysing data and finally report writing.

In this study, a case study method is chosen because the investigation will focus on the current state problem and to gain insights of JANM employees as the ERP System users. According to Gable (1994), a case study method is suitable for a study to investigate the problem in a natural setting and to understand the process in general. Therefore, a case study method is suitable to evaluate the effectiveness of



**Figure 3: Research Design**

ERP System in JANM.

### **Data Collection**

First, the data was collected through document review. Selected documents related with ERP System implementation were reviewed prior to the year 2005. Specifically, among the documents reviewed were JANM Reengineering Documents (2003), JANM Inception Report Volume 1-BPR Stream and Volume 2-Technical Stream (2003). The documents were supplied by JANM. In the process of reviewing these documents, some limitations were discovered such as limited access

on several classified information and the delay in getting the approval from the department concern. These limitations slightly delayed the data collection phase; however the historical information obtained were useful for this study.

In addition, data was also collected through survey. Survey questionnaires were administered to JANM ERP System users as respondents. The purpose of this survey was to gather the perceptions regarding ERP System effectiveness in JANM. The questionnaire was developed based on literature review. The questionnaires

were divided into four dimensions and every dimension consists of questions to derive the outcome to develop the overall users' perceptions or impact in using ERP System.

The questionnaire was designed using a 5-point, Likert-type scale (See Appendix: Survey Form). Brace (2004), recommended to use a 5-point Likert scale for most survey settings because it typically gives sufficient perception and is easily understood by survey participants. For each question, the respondents were asked to rate the extent they agree or disagree to each items.

Overall, 149 questionnaires were distributed and 106 respondents had responded, representing approximately 73% returned rate. The good

response rate obtained because the researcher personally administered the questionnaire and collected them upon completion. The respondents were from different positions, including top management, application users, IT responsible persons and end-users.

The data were then analysed using Statistical Program for Social Science (SPSS) software, version 15. The results were presented in tabular and graphical forms to enhance understanding of the results.

### The ESS Model

Enterprise System Success (ESS) Model was used in this study to evaluate the ERP System (See Figure 4). As mentioned earlier, the model has been found valid in a number of studies

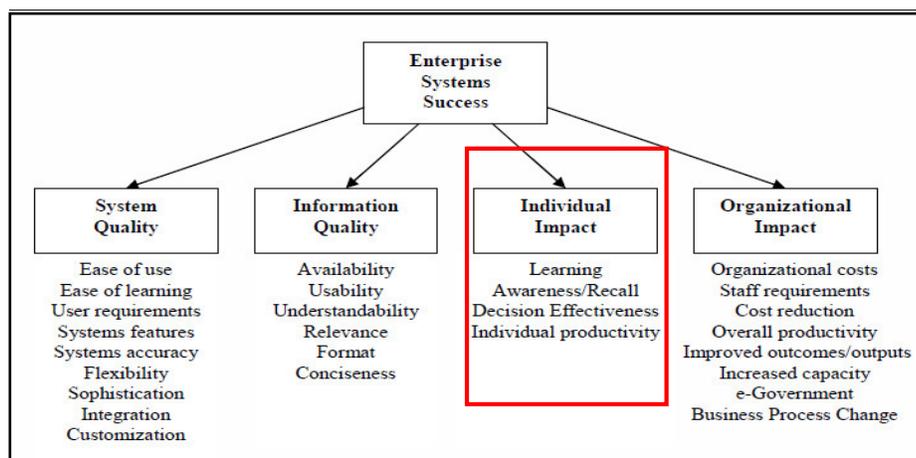


Figure 4 The ESS Model

(Chung, 2007; Gable et al., 2003; Zach, 2010). In this research, only the third dimension "individual Impact" is used throughout this evaluation (See Figure 4). As the research area is focusing on the users' perspectives, therefore, the individual impact dimension is much more relevant. Individual impact measures the extent to which the ERP system has influenced the capabilities and effectiveness of workers (Zach, 2010). There were 4 items involved to measure Learning, Awareness/Recall, Decision Effectiveness and Individual Productivity. According to Igbaria and Tan (1997), 'Learning' item is to measure the extent users familiar with the ERP system; 'Awareness/Recall' as the second item in the model to measure the extent users are aware about the system effectiveness in securing their data; the third item related with 'Decision Effectiveness' to examine the extent ERP System supports in decision making. Finally the last item is related with 'Individual Productivity' to measure the extent users feel the ERP System impacts their work productivity.

## ANALYSIS AND FINDINGS

The data obtained from the survey were

analyzed using Statistical Program for Social Science (SPSS) software. In order to get basic identification of the JANM employees, the demographic category questions were asked to retrieve details on gender, age, designation levels and years of working experience in JANM. Descriptive statistics were used to profile the sample. Statistical analyses of participants' responses provide information on the research questions and led to an identification of the basic details of the employees which are essential for the research topic. The findings are presented below.

### Gender

In terms of Gender, 28.30% of the respondents were male and 71.70% were female. The results are presented in Table 1 below.

*Table 1: Gender*

Description		Frequency	Percent
Gender	Male	30	28.30%
	Female	76	71.70%

### Age and Years of Work Experience

In terms of age and years of work experience, the results showed that 43.40% of the respondents were in the range of 31 to 40 years whereas more

than 80% of the respondents had less than 10 years of work experience. The results are presented in Table 2 below.

**Table 2: Age and Years of Work Experience**

Description		Frequency	Percent
Age	20 - 30 years	35	33.0%
	31 - 40 years	46	43.40%
	41 - 50 years	17	16.00%
	51 - 60 years	8	7.50%
Years Working in JANM	Less than 5 years	43	40.60%
	5 - 10 years	45	42.50%
	More than 10 years	18	17.00%

### Designation Level

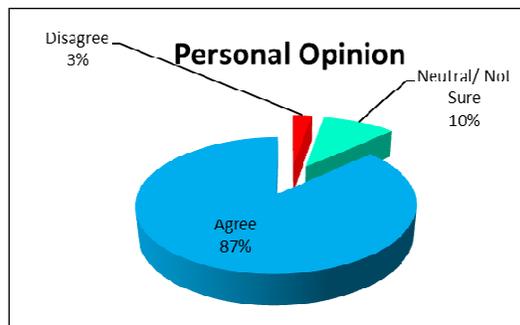
The results showed that 15.10% of the respondents were at managerial positions, 34% administrators and 50.90% were the end-users. The levels were identified based on positions and job scope of each individual (see Table 3).

**Table 3 Designation Level**

Description		Frequency	Percent
Designation	Management	16	15.10%
	Administrator	36	34.00%
	End-users	54	50.90%

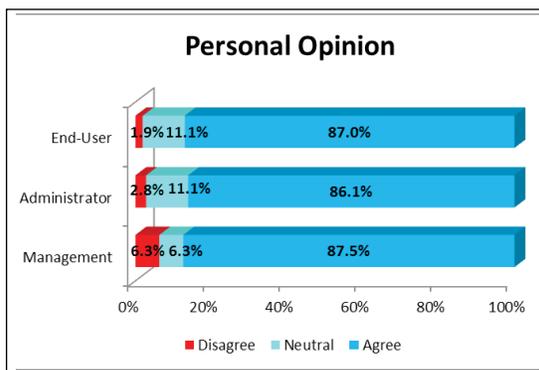
### Personal Opinion

The second part of the questionnaire asked for the overall opinion from the users regarding the ERP System. The results showed that 87% of the respondents 'agree or strongly agree' that the ERP System is suitable for JANM (See Figure 5). It is an indication that users are satisfied with the overall quality of the ERP system. In addition, the results also showed that the ERP System is capable to provide the required information .



**Figure 5 Personal Opinion**

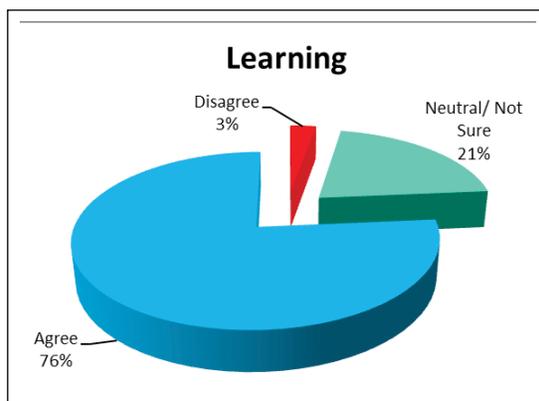
However, when the researcher further analysed by looking at different levels of users, the percentage for 'disagree and neutral opinion' were quite a concern (see Figure 6). This perhaps due to some users found the ERP system is not well-suited to their daily work.



**Figure 6 Personal Opinion from Users' Perspectives**

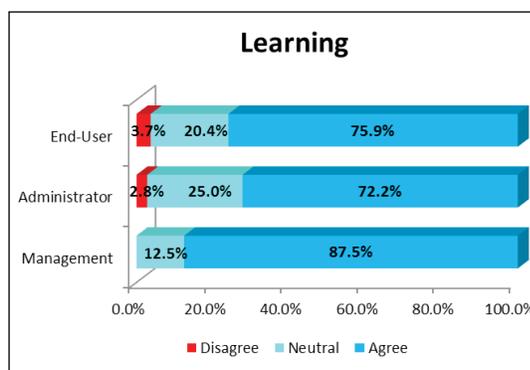
### Individual Impact on Learning

As mentioned earlier, the individual impact on learning measures the extent users are familiar with the ERP System. The results revealed that learning using the ERP system is not a problem. 76% of the respondents agreed that ERP system is certainly easy to be learned and basically user friendly (See Figure 7). Users were provided with basic training and were given a user manual to assist them in using the ERP System.



**Figure 7 Individual Impact on Learning**

Further analysis showed that, adapting learning was much easier by the management when 87.5% of the respondents from this group had agreed (see Figure 8). This is probably due to management are the direct users of ERP System for planning and decision making, thus learning is essential for them and they have to learn fast.



**Figure 8 Learning from Users' Perspectives**

### Individual Impact on Awareness

In this study, individual impact on awareness is to measure the extent respondents are aware of the effectiveness of the system in securing their data. The reliability of the system is important to measure the overall effectiveness of ERP System. In Figure 9, 81% of the respondents strongly agreed that they were satisfied with the security features. They were very sure that the ERP System is safe and they

were not worried on any data security issues. The high percentage shows that the ERP System is reliable in data protection.

On the other hand, only 1% of the respondents had strongly disagreed on security awareness. To explore further on the disagreement, Figure 10 determined that respondents who 'disagree' were belong to administrator's level. Probably this disagreement was based on their own experiences conducting data retrieval via the ERP System. Even though this percentage is minimal, yet this issue should be a concern to the organization to investigate further whether the data security.

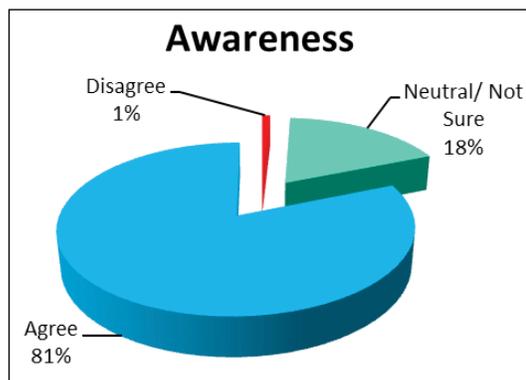


Figure 9 Individual Impact on Awareness

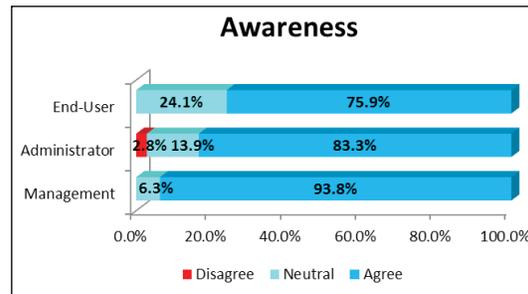


Figure 10 Awareness from Users' Perspectives

### Individual Impact on Decision Effectiveness

Decision effectiveness is an important factor to be examined among the ERP System users. In this study, decision effectiveness will measure the extent ERP System is used as a tool in decision making. Based on Figure 11, 79% of the respondents had 'agree and strongly agree' on the ability of the ERP System to assist in decision making. It is an indication that the ERP System is able to provide correct and error free information for decision making.

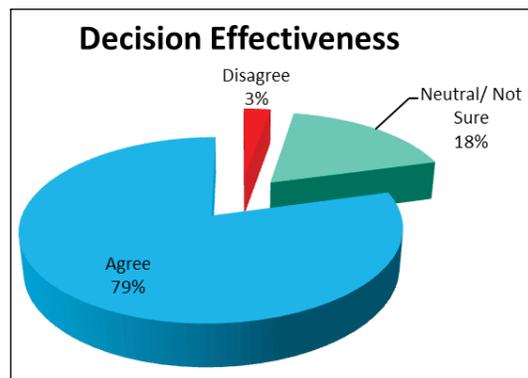


Figure 11 Individual Impact on Decision Effectiveness

Further analysis showed that 3% of the respondents 'disagree' and while another 18% 'neutral'. One plausible reason for this result is that, the users and administrators are not directly involved in decision making process.

### Individual Impact on Productivity

In this study, individual productivity refers to the extent an individual employee applies his or her talents on the job. The results showed that, 78% of the respondents 'strongly agree' and 'agree' that the ERP System did increase their productivity (see Figure 12). However, 21% of the respondents were not really sure on this matter. This could be that the respondents might be new to JANM and were still not familiar in using the ERP System. This scenario is supported by the demographic results on the Years of Work Experience. A high percentage of respondents with less than 5 years of work experience might be a plausible reason.

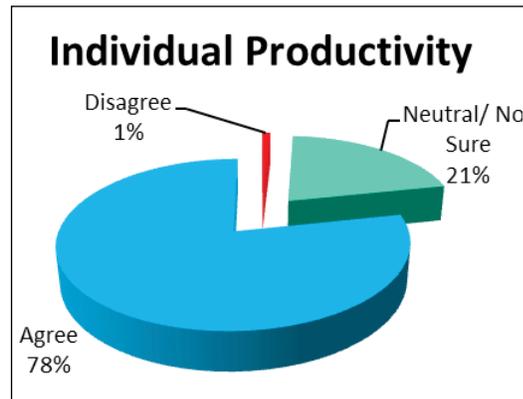


Figure 12 Individual Impact on Productivity

Further analysis also showed that 2.8% of the respondents that belong to administrators indicated that productivity is not affected by the ERP System alone (see Figure 13). For example, a number of administrators using ERP System as part of their job scope but at the same time, they need to fulfill other tasks using other tools such as 'Netbackup Software' for backup and restore activities.

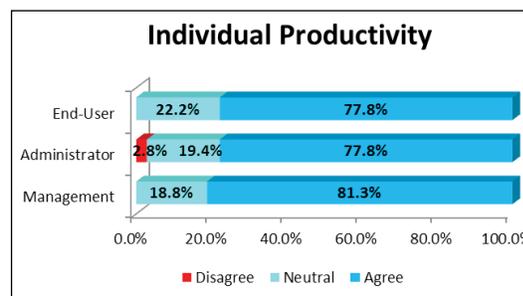


Figure 13 Individual Productivity from Users' Perspectives

## CONCLUSION

The effectiveness of ERP System measured in this study focused on the users who played an important role in the success of ERP System. Majority of users agreed that the ERP System (GFMAS) is effective in supporting their daily tasks. The ERP System performed well and produced positive impact to almost all users in JANM. Further, the ERP system is found valid, can be reliable and secured. Thus, this study proves that the ERP System is actually effective in supporting learning, improve productivity and decision making.

Continuous learning via training is recommended for the betterment in the ERP System implementation. Continuous learning via training is important to overcome any issues in using the ERP System. In order to facilitate learning, it is suggested that learning class is to be conducted in a small number of participants. It is critical to ensure the end-users have the ability to learn the necessary knowledge and skills, apply them on the job, which in turn, will improve their productivity and job performance.

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## APPENDIX A: SURVEY FORM



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### Master of Science (MSc.) Information Technology

#### Research Title:

**“Users Evaluation on the Effectiveness of Enterprise System in Jabatan  
Akauntan Negara Malaysia (JANM), Putrajaya”**

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This survey is conducted for the purpose of accomplishment on Masters Research. The objective of this research is to retrieve information on the effectiveness of GFMAS system usage in Jabatan Akauntan Negara Malaysia from the users' perspectives. The responses will assist Jabatan Akauntan Negara Malaysia in focusing raised issues among users' and the management can overcome and optimized the usage of ERP in particular area.

Therefore, your participation in this research would greatly appreciate. There is essentially no risk when participating in the survey; your responses will remain confidential and will not be tracked or identified when reporting data.

Thank you in advance for your participation.

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**A Submission for Information Technology Project (SYS 798)**

**General Particulars:**

**Gender:**  Male  Female

**Department/Unit:**

**Years working in JANM:**

**Module of GFMAS:**

**Designation/Position:** \_\_\_\_\_  Management  Administrator  End-User

**Age:**  20-30       31-40       41-50       51-60

**Survey Questions:**

Please tick the best answer based on your experience using GFMAS system at Jabatan Akauntan Negara Malaysia, Putrajaya. (If you are not the direct user of GFMAS, you may also answer these questions based on your personal view/opinion).

**1=Strongly Disagree    2= Disagree    3=Neither/Not Sure    4= Agree  
 5=Strongly Agree**

No.	Questions	Tick One Best Answer				
		1	2	3	4	5
1.	I think the overall quality of our GFMAS system is very good.					
2.	The scope of our GFMAS system is well matched with our company's needs.					
3.	Overall, I am very satisfied with the GFMAS system.					
4.	I have no difficulty in exporting data from the GFMAS system to other systems or software I currently use. (eg; e-SPKB, Veritas Net ackup, Webmethod, etc.)					

5.	I find the GFMAS system easy to use.					
6.	I find it easy to get the GFMAS system to do what I want it to do for my daily task.					
7.	My interaction with the GFMAS system is clear and understandable.					
8.	All function icons can be found easily. I think it is easy to use the functionalities in GFMAS System.					
9.	Usability of the GFMAS System features is simple and fast to learn.					
10.	The screen of the GFMAS System is easy to remember and fast to get familiar of its transaction flow.					
11.	I do not worry about data loss when I use the GFMAS system.					
12.	Only authorized personnel can retrieve data from GFMAS. Hence, I think the GFMAS system is very reliable.					
13.	Using the GFMAS system improves my performance.					
14.	Using the GFMAS system improves my productivity.					
15.	Using the GFMAS system improves my effectiveness.					
16.	Overall, using the GFMAS system is very useful in my job.					
17.	With the GFMAS system, I do not need to do "repetitive work" again.					

18.	The functionality of the GFMAS software our company is using is very good.					
19.	The GFMAS system covers our necessary business functions very well.					
20.	The quality of the output I get from the GFMAS system is high.					
21.	I have no problem with the quality of the GFMAS system's output.					
22.	The GFMAS system covers our necessary business functions very well.					
23.	The GFMAS system can help me make effective decisions.					
24.	The GFMAS system enables data sharing with other departments.					
25.	I can make decision on my working based on information available in GFMAS system.					
26.	GFMAS system gives me overall view of my subordinates' works.					
27.	The management reports from the GFMAS system are very useful.					
28.	Data and reports from GFMAS really help my team to assist in any discussions					
29.	Data and reports from GFMAS really help me and my team to make decision for any particular situation.					

**APPENDIX B: QUESTIONNAIRES SOURCES**

No	Item	Questions	Source/Author
	<b>Personal Opinion</b>	I think the overall quality of our GFMAS system is very good.	Chung, B. _2007_. "An analysis of success and failure factors for ERP Systems in engineering and construction firms." Thesis, Univ. of Maryland, College Park, Md.
		The scope of our GFMAS system is well matched with our company's needs.	
		Overall, I am very satisfied with the GFMAS system.	
<b>1</b>	<b>Learning</b>	I have no difficulty in exporting data from the GFMAS system to other systems or software I currently use.	Chung, B. _2007_. "An analysis of success and failure factors for ERP Systems in engineering and construction firms." Thesis, Univ. of Maryland, College Park, Md.
		I find the GFMAS system easy to use.	Davis, F. D. _1989_. "Perceived usefulness, perceived ease of use, and user acceptance of information technology." MIS Q., 13_3_, 318–340.
		I find it easy to get the GFMAS system to do what I want it to do for my daily task.	Venkatesh, V., and Davis, F. D. _2000_. "A theoretical extension of the technology acceptance model: Four longitudinal field studies." Manage. Sci., 46_2_, 186–204.
		My interaction with the GFMAS system is clear and understandable.	

		All function icons can be found easily. I think it is easy to use the functionalities in GFMAS System.	Ferratt, T. W., Ahire, S., and De, P. 2006. "Achieving success in large projects: Implications from a study of ERP implementations." <i>Interfaces</i> , 36_5_, 458–469.
		Usability of the GFMAS System features is simple and fast to learn.	Sage, "Improving ERP Usability: How Intuitive ERP Drives Productivity, Improves ROI and Enhances Collaboration", White Paper, 2011.
		The screen of the GFMAS System are easy to remember and fast to get familiar of its transaction flow	
<b>2</b>	<b>Awareness</b>	I do not worry about data loss when I use the GFMAS system.	Chung, B. 2007. "An analysis of success and failure factors for ERP Systems in engineering and construction firms." Thesis, Univ. of Maryland, College Park, Md.
		Only authorized personnel can retrieve data from GFMAS. Hence, I think the GFMAS system is very reliable.	
<b>3</b>	<b>Individual Productivity</b>	Using the GFMAS system improves my performance	Davis, F. D. 1989. "Perceived usefulness, perceived ease of use, and user acceptance of information technology." <i>MIS Q.</i> , 13_3_, 318–340.
		Using the GFMAS system improves my productivity.	Venkatesh, V., and Davis, F. D. 2000. "A theoretical extension of the technology acceptance model: Four longitudinal field studies." <i>Manage. Sci.</i> , 46_2_, 186–204.
		Using the GFMAS system improves my effectiveness	

		Overall, using the GFMAS system is very useful in my job.	
		With the GFMAS system, I do not need to do “repetitive work” again.	DeLone, W. H., and McLean, E. R. _1992_. “Information systems success: The quest for the dependent variable.” Information Systems Research, 3_1_, 60–95.
		The functionality of the GFMAS software our company is using is very good	Ferratt, T. W., Ahire, S., and De, P. _2006_. “Achieving success in large projects: Implications from a study of ERP implementations.” Interfaces, 36_5_, 458–469.
		The GFMAS system covers our necessary business functions very well	
		The quality of the output I get from the GFMAS system is high.	Venkatesh, V., and Davis, F. D. _2000_. “A theoretical extension of the technology acceptance model: Four longitudinal field studies.” Manage. Sci., 46_2_, 186–204.
		I have no problem with the quality of the GFMAS system’s output.	
		The GFMAS system covers our necessary business functions very well.	Ferratt, T. W., Ahire, S., and De, P. _2006_. “Achieving success in large projects: Implications from a study of ERP implementations.” Interfaces, 36_5_, 458–469.
		The GFMAS system can help me make effective decisions.	DeLone, W. H., and McLean, E. R. _1992_. “Information systems

<b>4</b>	<b>Decision Effectiveness</b>	The GFMAS system able data sharing with other departments	success: The quest for the dependent variable.” <i>Information Systems Research</i> , 3_1_, 60–95.
		I can make decision on my working based on information available in GFMAS system.	
		GFMAS system gives me overall view of my subordinates’ works.	
		The management reports from the GFMAS system are very useful.	Venkatesh, V., and Davis, F. D. _2000_. “A theoretical extension of the technology acceptance model: Four longitudinal field studies.” <i>Manage. Sci.</i> , 46_2_, 186–204.
		Data and reports from GFMAS really help my team to assist in any discussions.	
		Data and reports from GFMAS really help me and my team to make decision for any particular situation.	



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All figures (charts, graphs, drawings etc) and tables should be titled and numbered. Figures and Tables should supplement the text and not duplicate it. Here are some examples:

Figure 2.5 Evolution of Training's Role

Source: Noe, RA 2005, Employee Training and Development, p.41.

Table 6.20 Fit Indices for Hypothesised Structural Model

### **Appendices**

Use a separate page for appendices (if required). Provide each appendix with a title.

### **Reference Citations**

Use author-date method. Here are some examples:

*If one author:*

Laker (1990) proposed .....

*If two authors:*

Broad and Newstrom (1992) also noted that .....

*If two or more works cited at the end of the text:*

Transfer of training is generally defined as the degree to which trainees apply the knowledge, skills and attitudes gained in training to their job (Ford & Weissbein 1997; Tannenbaum & Yulk 1992; Wexley & Latham 1991).

*If more than two authors and their work is again cited in the text, use 'et al.'.*

For example,

*First citation in text:*

For instance, Tziner, Haccoun and Kad sh (1991) noted that the fundamental

purpose of training is to help people develop skills and abilities which, when applied at work, will enhance their average job performance in their current job.

*Subsequent citation in text:*

The definition provided by Tziner et al. (1991) links the acquisition of knowledge and skills gained through training to an application in the workplace.

### **Reference List**

All references in the reference list must be cited in text and should be arranged in an alphabetical order. Here are some examples:

#### **Books**

- Cohen, JW 1988, *Statistical power analysis for the behavioural sciences*, 2nd edn, Lawrence Erlbaum Associates, Hillsdale, NJ.
- Cormier, SM & Hagman, J 1987, *Transfer of learning: contemporary research and applications*, Academic Press Inc, London.

#### **Book Chapters**

- Kozlowski, SW & Salas, E 1997, 'An organisational systems approach for the implementation and transfer of training', in Ford, JK., Kozlowski, SW., Kraiger, K., Salas, E & Teachout, MS (eds), *Improving training effectiveness in work organisation* (pp.247-87), Lawrence Erlbaum, New Jersey

#### **Encyclopaedia**

- Tuijnman, AC (ed.) 1996, *International Encyclopaedia of Adult Education and Training*, Pergamon, NY

#### **Journals**

- Bates, RA 2001, 'Public sector training participation: an empirical investigation', *International Journal of Training and Development*, vol.5, no.2, pp.136-152
- Connelly, CE & Kelloway, EK 2003, 'Predictors of employees' perceptions of knowledge sharing cultures', *Leadership & Organisation Development Journal*, vol.24, no.5, pp.294-301.
- Colquitt, JA., LePine, JA & Noe, RA 2000, 'Toward an integrative theory of training motivation: a meta-analytic path analysis of 20 years of research', *Journal of Applied Psychology*, vol.85, pp.679-707

**Internet**

Ahmad Badawi, A 2006, 'Strengthening resilience, meeting challenges', The 2006 Budget Speech, viewed 20 February 2007, <http://www.treasury.gov.my/index.php?ch=12&lang=eng>

**Proceedings**

Bates, RA & Holton, EF III 1999, 'Learning transfer in a social service agency: test of an expectancy model of motivation', in KP Kuchinke (eds.), *Academy of Human Resource Development 1999 Conference Proceedings* (pp.1092-1099), Academy of Human Resource Development, Baton Rouge, LA.).

**Dissertation**

Chen, CH 2003, *Cross cultural construct validation of the learning transfer system inventory in Taiwan*, Unpublished Doctoral Dissertation, Louisiana State University.

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