Faculty of Business

Transition Towards Accrual Accounting and Disclosure Requirements in the Malaysian Public Sector: A Case of Sarawak

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DECLARATION

To the best of my knowledge and belief, this thesis contains no material previously published by any other person except where due acknowledgment has been made.

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Hadysyam Bin Junaidi

Date : 26 March 2018

ABSTRACT

Under the accrual basis of accounting, the principle underlying the reliability of annual financial statements is fundamental for the need of improving accountability, transparency, and decision-usefulness of the governments to ensure that the public authorities utilise resources effectively and efficiently. In line with the financial transformation agenda of the National and State governments, the main aim of this study is to examine the disclosure requirements for the transition towards accrual accounting in the Malaysian public sector, with the focus on local authorities in the state of Sarawak.

By drawing from the institutional theory and the Ouda's (2010) extended contingency theory, termed as a 'Prescriptive Model', therefore, three specific objectives of the study were developed by employing a mixed-method research design. Firstly, a disclosure index approach was used to determine the extent of disclosure of accrual accounting information in the annual financial statements. Secondly, a multiple regression model using the GLS regression estimated with cluster-robust standard errors was applied to analyse the association between the five-specific determinants and accrual accounting disclosures. Thirdly, a focus group interview was employed to identify the requirements and extent of influences which contribute to the transition and disclosure of accrual accounting information in the annual financial statements.

The data for the quantitative part in Phase I was collected from 2012 to 2015 annual financial statements of the twenty-six Sarawak local authorities (SLA) and three types of internal documents, namely: manual procedures of the computerised accounting system, human resource database, and list of the appointed external auditors. In Phase 2, a focus group interview was conducted involving thirteen participants from seven selected SLA and group of experts, representing respective government departments and linked company, and a local-based audit firm.

The study developed 51 accrual items of self-constructed disclosure index and was further divided into six categories and nine subcategories. It was found that the SLA provided a low level of accrual disclosure with an average of 36.36% over the four years study period and a high dispersion of scores ranging from 30.23% to 89.13%.

The results also showed that the highest disclosure was found in the Statement of Budget Performance, and the lowest score was reported on the Statement of Changes in Net Asset/Equity and the Cash Flow Statement respectively. On the other hand, three out of five hypothesis tested namely: regulations, qualification of accountancy personnel, and technology infrastructure posed a significant association with the accrual accounting disclosure. These results support the presence of all the institutional pressures: coercive, normative and mimetic isomorphism.

The focus group interview imparted meaningful insights to the findings in the qualitative phase. By extending the Ouda's prescriptive model, there were some modifications and enhancement made to the original model in which the reform decision-making, transition, and post-transition phases are taking place. The model extension was made by taking into account the cultural, administrative, and technical requirements of the SLA's operating domain. Overall, the financial reform process in the SLA entails a parallel implementation of the accrual accounting disclosure and new technology infrastructure.

The study contributes to the paucity of literature on the subject of accrual accounting and disclosure studies, with the use of the pragmatic approach through the combination of both institutional and contingency theories. The empirical results from this study have wide-ranging implications to the policymakers, regulators, and the SLA themselves by providing valuable inputs and comprehensive frameworks in explaining the disclosure requirements for the transition towards accrual accounting.

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CONFERENCE PAPERS PRESENTED

The following conference papers are based on the preliminary works and certain parts of the thesis:

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LIST OF ABBREVIATIONS

AGD	:	Accountant General’s Department of Malaysia
AI	:	Audit Institution Size
BDA	:	Bintulu Development Authority
BDO	:	Bintulu Development Authority Ordinance 1978
BRM	:	Basic Requirement Model
CAO	:	Chief Administrative Officer
CIPFA	:	Chartered Institute of Public Finance and Accountancy
DBKU	:	Kuching North City Hall
ELA2	:	Electronic Local Authority version 2.0
ETP	:	Economic Transformation Programme
EU	:	European Union
FE	:	Fixed Effects Model
FGAAM	:	Federal Government Accrual Accounting Manual
FMAI	:	Financial Management Accountability Index
FMR	:	Financial Management Reform Model
FTC	:	Federal Treasury Circulars
GAAP	:	Generally Accepted Accounting Principles
GFMAS	:	General Financial and Management Accounting System
GTP	:	Government Transformation Programme
ICTU	:	Information Communication Technology Unit of Sarawak Chief Minister’s Department
ILAIS	:	Integrated Local Authority Information System
IPSAS	:	International Public Sector Accounting Standards
IPSASB	:	International Public Sector Accounting Standards Board
LAFR	:	Local Authorities Financial Regulations 1997
LAO	:	Local Authorities Ordinance 1996
LGA	:	Local Government Act 1976
LISREL	:	Linear Structural Relations
LSZ	:	Natural Logarithm Transformation of Annual Collection of Assessment Rates
MAS	:	Micro-Accounting System
MASB	:	Malaysian Accounting Standards Board
MBKS	:	Kuching South City Council

MBS	:	Modified Budgeting System
MERCOSUR	:	A Trading Block, Comprising Argentina, Brazil, Paraguay, Uruguay, and Venezuela with Associate Members of Bolivia, Chile, Colombia, Ecuador, and Peru
MFRS	:	Malaysian Financial Reporting Standards
MFSB	:	Malaysian Federal Statutory Bodies
MIA	:	Malaysian Institute of Accountants
MLGH	:	Ministry of Local Government and Housing, Sarawak
MLA	:	Malaysian Local Authority/Authorities
MMKN	:	Majlis Mesyuarat Kerajaan Negeri
MPSAS	:	Malaysian Public Sector Accounting Standards
NAD	:	National Audit Department of Malaysia
NCGA	:	National Council of Governmental Accounting
NEM	:	New Economic Model
NFP	:	Not-for-Profit Organisations
NPM	:	New Public Management
NPFM	:	New Public Financial Management
OECD	:	Organisation for Economic Co-operation and Development
PEMANDU	:	Performance Management and Delivery Unit
PERS	:	Private Entity Reporting Standards
PM	:	Prescriptive Model
POLS	:	Pooled Ordinary Least Squares
PPBS	:	Program and Performance Budgeting System
QP	:	Qualification of Accountancy Personnel
RE	:	Random Effects Model
RG	:	Regulations
RQ	:	Research Question(s)
SAGA	:	Standard Accounting System
SAINS	:	Sarawak Information Systems Sdn Bhd
SBO	:	Statutory Body Ordinance (Financial and Accounting Procedure) 1995
SCS	:	Sarawak Civil Service
SFS	:	Sarawak State Financial Secretary Office
SIMAFAL	:	Integrated Financial Management System for Latin America and Caribbean

SLA		Sarawak Local Authority/Authorities
SLADI	:	Accrual Accounting Disclosure Index of Sarawak Local Authorities
SMART 2000	:	Sistem Maklumat Kerajaan Tempatan
SRS-LA	:	Local Authority Star Rating System
SZ	:	Size of Local Authorities
TBS	:	Traditional Budgeting System
TI	:	Technology Infrastructure
UK	:	United Kingdom
US	:	United States

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CHAPTER 1
OVERVIEW OF THE STUDY

1.1 INTRODUCTION

This chapter introduces the framework of the study. To further understand the objectives and contributions of the study, a number of related financial reporting development and issues, particularly in Malaysia are presented. The chapter is outlined in the following format: Section 1.2 lays out the background of research; Section 1.3 discusses the research problem which initiates the efforts of undertaking the research; Section 1.4 focusses on the research gap; Section 1.5 outlines the three research questions set to be answered and approach deployed in the study; Section 1.6 presents the research objectives; Section 1.7 indicates the significance of research to the academic and practical perspectives; Section 1.8 explains the scope and limitations of the study; Section 1.9 describes the study structure; and Section 1.10 concludes the chapter.

1.2 BACKGROUND AND MOTIVATION OF THE STUDY

Over the past decades, there was a strong movement initiated by many public sector institutions on moving to an accrual-based system from traditional cash accounting for some arguments (FEE 2008). The movement, pioneered by the New Zealand and Australia, was seen as the forerunners of financial management reforms which had great influences on the public sector, especially in the Western governments which are also in tandem with the New Public Management (NPM) reform (Connolly and Hyndman 2006). In this connection, many developing countries have also been influenced by the NPM reforms because of their claimed benefits in improving public governance and other public sector modernisation efforts (Adhikari and Mellemvik 2011).

The mantra of NPM has witnessed a transformation in the management of public sector institution, which is driven by the private sector and market-type mechanism (Hood 1991, 1995). The transformation, which is linked with the "public accountability and organisational best practice" notions (Hood 1995, 93), has appealed to many governments, notably those in the UK, New Zealand, and Australia due to its emphasis on a better allocation, efficient utilisation of public resources, and performance-oriented management (Hughes 2003). NPM is also viewed as a functionalist approach that assists the public sector organisations in achieving the economic efficiency and effectiveness (Bogt 2008) as well as improving performance in the delivery of public services (Siddiquee 2006).

A redefined public sector performance is not only confined to output and outcomes, but it has indoctrinated a sense of financial accountability among public officials (Guthrie 1998). Being the driving force of a new conception of public accountability, NPM has given accounting a prevailing role in enhancing public sector performance by putting high trust in the private-sector management practices (Hood 1995). In this regard, many studies have linked the NPM paradigm to the central function of accounting in the public sector institutions (e.g. Guthrie, Olson and Humprey 1999; Bogt 2008; Broadbent and Laughlin 2015).

In another context, Sharma and Lawrence (2008) argue that rather than acting as a technical information provider for decision-making purposes, the role of accounting has permeated to the stage of influencing the broader social and institutional environment of the organisation. This influence has triggered the change of governmental accounting landscape to be in line with the commercial approaches (Broadbent and Laughlin 2015). Accounting change, which is synonymous with the accrual accounting techniques and professionally external accounting standards, is considered as one of the overall government reform package and the most widely debated reforms under the purview of New Public Financial Management (NPFM) (Guthrie, Olson and Humprey 1999; Adhikari, Kuruppu and Matilal 2013).

Prior to the accounting reform, the general public may not have full access to the additional information disclosures about the distribution of government's financial information (Chan, Jones and Lüder 1996). Unlike private practice, the full-disclosure principle seems to be lacking in governmental accounting, resulting in poor quality financial information (Ouda 2007). Additionally, traditional financial reporting in the governments is considered insufficient in providing a complete picture of the governmental activities which has prompted substantial reforms in the reporting disclosure practices (Marcuccio and Steccolini 2009).

In Malaysia, the rapid development of public sector reforms in many countries has brought changes to its public sector landscape. As such, a wide variety of reforms has been introduced since the 1980s which are influenced by the global trends in the public administrative (Saleh 2008). Some examples of the reforms introduced in the Malaysian public sector are the 'Malaysian Incorporated' policy, quality and productivity improvement drives, IT culture and e-government, client charter and public accountability, and personnel and financial management reforms (Siddiquee 2006). Siddique has also highlighted the NPM's spill-over effect which has prompted the transformation of the traditional way of administering the Malaysian government organisation into a flexible, market-driven and result-oriented one.

On the other hand, there appear to be a growing 'public trust deficits' regarding a slew of weaknesses reported in the financial management of public sector arising from a series of scandals and misappropriation of public funds (Buang 2012). In tandem with the public reform goal to curb financial mal-management, several efforts have been carried out by the Malaysian government to regain public confidence by transforming the public finance. One of the actions taken is through the implementation of 'Local Authority Star Rating System' throughout local authorities in Malaysia with the objective to measure the performance and efficiency of local authority's delivery system that also includes financial management aspects (The Star Online 2008).

In 2007, the Malaysian government introduced the Financial Management Accountability Index (FMAI), which was regarded as the first accountability index auditing implemented in the global context (Abu Bakar and Ismail 2011). The FMAI, spearheaded by the National Audit Department of Malaysia (NAD), covers all Federal and State ministries and departments as well as agencies such as Federal and State Statutory Bodies, Local Authorities and Islamic Religious Councils (NAD 2008; Abu Bakar and Ismail 2011). The motivations behind the FMAI implementation come from repetitive audit findings of internal control weaknesses and noncompliance issues which have spurred public outcry and great concern from the Government leaders.

As part of the overall National Transformation Programme, the Economic Transformation Programme (ETP) was unveiled by the then Prime Minister Najib Razak in 2010, which acts as a vehicle to turn Malaysia into a developed and high-income nation (PEMANDU 2010). The transformation programme, in turn, would enable the country to shield its economy from a volatile global economic climate (PEMANDU 2016). The ETP, propelled by the private sector, is presently built upon two pillars which cover 12 National Key Economic Areas and 6 Strategic Reform Initiatives, including an initiative of public finance reform (PEMANDU 2016). Being an important feature of the New Economic Model (NEM), public finance reform has been outlined as one of the broad strategies needed to rejuvenate government structures and administrative procedures to achieve the 'Vision 2020'[1] (NEAC 2010).

In this regard, accrual accounting implementation has been incorporated as one of the broad strategies of public finance reform, which forms the bedrock of the ETP (NEAC 2010) and consequently, a working group on the implementation plan was established by the PEMANDU[2] in 2011 (Saleh 2013). The transition to accrual accounting implementation was initially scheduled in 2015 for the Malaysian federal government's financial statements with the state government following suit in 2016 (IPSASB 2013). The implementation task was spearheaded by the Accountant General's Department of Malaysia (AGD), being the authority entrusted to oversee issues regarding accounting of both the Federal and State governments (Saleh and Abu Hassan 2015).

In line with the national policy measures, the Sarawak state government has also taken significant steps in positioning its public sector finance. Therefore, a roadmap towards accrual accounting has been emphasised as one of the key strategic issues for the long-term improvement initiatives from 2014 to 2020 in driving 'Financial Management Transformation under the Sarawak Civil Service (SCS) 10-20 Action Plan'. However, there is no specific year set for the transition towards accrual accounting for the State

[1] Vision 2020, launched in 1990, is a brainchild of the 4th Prime Minister of Malaysia, Tun Dr. Mahathir Mohamad for the nation to be a fully developed country by the year 2020 with the main emphasis on the economic prosperity.

[2] 'PEMANDU' stands for the Performance Management and Delivery Unit (PEMANDU) is a unit established under the purview of the Prime Minister's Department, Malaysia. The main functions of PEMANDU are to monitor and assess the overall implementation of the Government Transformation Programme (GTP).

Ministries, Departments, Agencies and Local Authorities (Chief Minister's Department 2012)[3].

In the context of the accrual accounting implementation, the latest developments in bringing about public sector transformation are in tandem with the government's aspiration to strengthen the efficiency in financial management and accounting (NAD 2013b). The accrual system would help the Malaysian government to obtain faster retrieval of financial information by providing a holistic and accurate snapshot of the government financial position, which includes prudent fiscal management for achieving good governance, transparency, and accountability (NEAC 2010). This initiative will enhance the credibility in the Malaysian government's financial management ability, thus gaining greater confidence from the public.

However, the path to accrual accounting is not spared from various challenges and issues. Based on the ETP's Annual Report 2014, the federal government only achieved 81.3% of the activity implementation which resulted in the deferment of the target date for accrual accounting due to the inability of system development (PEMANDU 2015). The delivery milestone was again over-extended due to similar issues, resulting in the delay for the transition from cash to accrual system, which takes more than six years since the implementation plan was formed in 2011 (PEMANDU 2016). Based on the recent report, the actual percentage of implementation of accrual accounting activities in 2016 only stands at 55.7% (PEMANDU 2017), suggesting that the transition process might stretch to at least for another year[4].

As highlighted by IPSASB (2013), four critical areas have been emphasised by the Malaysian government that should aspire the successful transition which involves the establishment of policies and standards, and amendments to the existing laws and regulations. A new development of information technology systems that cater for

[3] The annual financial report for the Sarawak state government is anticipated to be prepared under full accrual accounting basis by the year 2019. This information is obtained from the senior official of the Sarawak State Treasury Department.

[4] The latest anticipation for the full implementation of accrual system at the Federal government level is by the year 2018. This information was obtained from the AGD during the Seminar of the Malaysian Public Sector Accounting Standards for the Statutory Bodies, Local Government, and Religious Department in Sarawak in October 2017.

accrual system is also in the pipeline, as well as strengthening the human resource capacity. In another aspect, the Treasury issued Circular No. 4 Year 2013 (i.e., TC4/2013)[5] as part of its effort to explain the roles and responsibility of financial accounting officers on the implementation of accrual-based accounting.

Correspondingly, two committees, namely: Government Accounting Standards Advisory Committee and Accrual Accounting Steering Committee were established under the purview of the AGD to develop accounting standards called the Malaysian Public Sector Accounting Standards (MPSAS). MPSAS are accrual accounting standards drawn up primarily from the International Public Sector Accounting Standards (IPSAS) through the International Public Sector Accounting Standards Board (IPSASB) (MIA 2013b). The Malaysian government, through AGD, also issued various guidelines such as the Federal Government Accrual Accounting Manual (FGAAM) to assist users in the application of MPSAS[6] concerning recognition, measurement and disclosure requirements for the production of financial statement based on accrual accounting. The application of MPSAS is also to harmonise the presentation of the financial report among the Federal and State statutory bodies, local governments, and religious departments for easy comparison.

In another aspect, the management of the Malaysian government is segregated into three tiers, namely: Federal government, State government, and Local government. Local government[7], commonly known as local authorities and being the frontline agency should make the people's need for services their priorities. Thus, there is an urgent need for transformation in their performance and accountability to better serve the needs of the people (Salleh and Khalid 2011). Issues stretching from the effectiveness of financial management to the quality and reliability of the financial

[5] The issuance of Treasury Circular No. 4 Year 2013 by the Malaysian Treasury is to explain the implementation of accrual accounting for the financial and accounting management of the Federal government in 2015.

[6] As of 20th April 2017, 48 Federal statutory bodies and 28 local governments in the Peninsular States of Malaysia have adopted the MPSAS in the presentation of the annual financial statements. At present, 36 accounting standards have been issued by the AGD for adoption. This information was obtained from the AGD during the Seminar of the Malaysian Public Sector Accounting Standards for the Statutory Bodies, Local Government, and Religious Department in Sarawak in October 2017.

[7] The terms 'local government', 'local authority' and 'local council are used interchangeably throughout this study.

reports have been discussed extensively with the stakeholders, who demand greater sound and practical financial information (Mohamed et al. 2010).

In terms of the accounting and reporting purposes, the Malaysian local authorities (MLA) particularly in the Peninsular States are governed by the Local Government Act 1976 (LGA) which do not specify the forms and contents of the presentation of annual financial statements. A few sets of accounting standards have been adopted by the MLA, namely: the International Financial Reporting Standard, guidelines issued by the Ministry of Housing and Local Government, self-created accounting practices, and the Federal Treasury Circulars (FTC) which are more applicable to the Statutory Bodies (Tayib, Coombs and Ameen 1999). Another alternative reference is the accrual accounting policy document issued by the AGD, one that is specifically designed for all Federal ministries and departments in the preparation of annual financial statements.

In the context of MLA, a previous study by Mohamed, Atan, and Horoen (2006) stated that the financial disclosure of the 42 local councils in the Peninsular States of Malaysia were complied with the minimum requirement of the LGA and some of the local councils breached the guidelines issued by the Malaysian Accounting Standards Board (MASB)[8]. Despite the fact that an accrual-based system has been used as the principal in preparing the MLA's annual financial statements (Salleh, Aziz and Bakar 2014; Rauf et al. 2012), there is still no obligatory requirement for them to adopt specific financial reporting standards (Mohamed et al. 2010). Therefore, the MLA needs to have a set of uniformed accounting standards so that the financial statements of local authorities are no more based on a confused mixture of accounting principles, thus will improve their information quality and reliability (Mohamed, Atan and Horoen 2006).

[8] The MASB, an independent authority, was established under the Financial Reporting Act in 1997 and empowered to develop and issue accounting and financial reporting standards in Malaysia, which are fully in compliant with the International Financial Reporting Standards (IFRS). Effective 1 January 2015, entities other than private entities are required to prepare financial statements based on the Malaysian Financial Reporting Standards (MFRS). This information is obtained from the official website of the MASB, where can be accessed at www.masb.org.my.

Due to lack of standard accounting disclosures, Ali and Saidin (2016) develop a mandatory disclosure index which can be served as a benchmark for all local authorities in the Peninsular States of Malaysia. The index is based on three main sources of law which are the LGA, the Statutory Bodies (1980) and the Audit Act (1957), rules and guidelines outlined in TC No. 15/1994, and the MASB. However, the study is bound to have few weaknesses, such as insufficient sample of financial statements supplied, untested measurement of the disclosure index based on the financial statements quality and factor that affects the quality of the MLA's financial statements.

On the other hand, the use of Micro-Accounting system (MAS) which supplements the efforts of shifting to accrual accounting (Saleh and Pendlebury 2006; Saleh 2013) and enhances accountability among the MLA, was reported unsuccessful due to various reasons such as inadequate IT infrastructure (Isa, Saleh and Jusoh 2011). Regarding a social-political context, the MLA are also engulfed with accountability issues. As argued by Khalid (2010), the exclusivity and direct appointment of the local councillors, selected based on political affiliation have eroded the sense of accountability discharged towards their stakeholders. Additionally, the financial and physical constraints that are faced by the district councils have dampened the effort to provide better services, which in turn sacrifices the stakeholders' satisfaction. Also, public grouses have been growing as a result of poor financial management which leads to a series of allegations such as malpractices and corruptions (Salleh and Khalid 2011). At the same time, misappropriation of resources is still rampant due to the personal interest and poor financial management practices (Ab Majid et al. 2014).

Contrary to their counterparts in Peninsular Malaysia and Sabah, the Sarawak local authorities (SLA) financial reporting practices are very much different, and the majority of them are still using modified cash accounting. A study on the financial position of the SLA reveals that most local authorities lack the management reporting system to assist in managing the cost of providing the services and the inability to provide accurate reporting of revenue and expenditure. In this regard, Ernst & Young (2009) highly recommend the SLA to consider adopting an accrual system of accounting in the preparation of annual financial statements that would ensure the recognition of all cost and revenue incurred in the production of council services.

Additionally, in the 2013 Auditor General's Report, the Chief Minister's Department and the Ministry of Local Government and Housing Sarawak (MLGH)[9] were strongly advocated to migrate to an accrual-based accounting by giving priority to the city and municipal councils. This recommendation is laudable in order to strengthen the transformation of SLA and further enhance the efficiency of financial management practices. Following that, the State government has to consolidate the SLA's financial management aspects, particularly in the supervision of assets and inventory as a prelude towards the new accounting basis (NAD 2014b).

Further, the disclosure of annual financial statements and accounting practices vary between local authorities in Sarawak[10]. Out of the twenty-six SLA, only Kuching North City Hall (DBKU) practices accrual system, and its presentation of annual financial statements is voluntarily based on the Private Entities Reporting Standard (PERS)[11], apart from the legal requirements of the Local Authorities Financial Regulations 1997 (LAFR)[12]. In comparison, Bintulu Development Authority (BDA) adopts modified accrual basis which is based on the Statutory Body Ordinance (Financial and Accounting Procedure) 1995 (SBO). In addition to the SBO, BDA also adopts PERS for the preparation of the annual financial statements. While the other twenty-four local authorities apply modified cash accounting and the disclosure of their annual financial statements is solely based on the LAFR. As a result of the

[9] Prior to the latest reshuffle of new Cabinet of Sarawak (or, officially, Sarawak State Executive Council) in May 2017, the MLGH was known as the Ministry of Local Government Sarawak (MLG). From October 2011 to May 2016, the SLA were put under the purview of the Ministry of Local Government and Community Development Sarawak (LGCD). For the purpose of this research, any previous references to the LGCD and the MLG are denoted under the abbreviation of MLGH for standardisation.

[10] The information of the accounting basis and regulations adopted by the twenty-six SLA is obtained from the NAD and MLGH.

[11] PERS is an accounting standard issued by the MASB for the reference of a private company established under the Companies Act 1965. However, effective 1 January 2016, all private companies, including Small and Medium Enterprises, are required to apply for the Malaysian Private Entities Reporting Standards (MPERS), or alternatively the MFRS. In addition to this, the application of PERS by the State government agencies in Malaysia has been withdrawn by the MASB. Thus, the application of PERS in the presentation of annual financial statements from the year 2016 and onwards may affect the issuance of the 'Clean Audit Certificate'. Both information were obtained from the Accountants Today (Jan/Feb 2016, Vol. 29 No.1), the official publications of the Malaysian Institute of Accountants (MIA) and the official letter (ref: AUDIT/IP/SAK/147/535/31(2), dated 15th March 2017) issued by the NAD to all State agencies in Malaysia.

[12] The LAFR incorporates all amendments up to 31st May 2007.

different set of accounting standards and unavailability of best accounting practices, the SLA have been given the discretion to adopt any accounting standards that suit their needs. The lack of accounting standards and guidelines has led to disclosure inconsistency in the annual financial statements of the SLA which are difficult to distinguish within the same entities.

1.3 RESEARCH PROBLEM

Practically, the preliminary discussions identify several financial management issues in the Malaysian public sector. In this regard, accrual accounting has been introduced as one of the transformation agendas by the Malaysian and Sarawak state governments for their financial reporting system. However, the transition to accrual accounting implementation, which was initially scheduled in 2015 for the Malaysian federal government's financial statement was postponed to several years due to various technical issues. Meanwhile, the annual financial report for the Sarawak state government is expected to be prepared under accrual accounting basis once the Federal government has successfully implemented the system. To date, there is no specific year set for the accrual implementation for the whole SLA as it would require a development of comprehensive transition framework[13].

The preceding discussions also reveal that the disclosure of annual financial statements and accounting practices vary among the twenty-six SLA with the majority of the SLA still practise an outdated system of cash accounting. Furthermore, lack of accounting standards and guidelines has led to disclosure inconsistency in the annual financial statements of the SLA. As a result, a different set of accounting regulations and standards has been adopted by the respective SLA by combining both statutory and non-statutory requirements and the best accounting practices which creates a practical gap in the accrual compliance.

Correspondingly, there are strong recommendations reported in the Auditor General's Reports for the SLA, in particularly the city and municipal councils to consider migrating to an accrual-based system due to the recurrence weaknesses found in the financial management practices (NAD 2014b, 2015b; NAD 2016b). Among the

[13] This information is obtained from the senior official of the MLGH.

identified issues are an incomplete record of debtors and creditor, lack of control of the trust and deposit account, and poor handling in the management of assets (NAD 2011a, 2013b). For that reasons, the transformation within the SLA must be executed promptly by involving the structures, processes as well as the existing financial disclosure and reporting system that may be lacking in meeting the high demands clamoured by the society, particularly the accountability and transparency aspects.

Given the above, the accrual system is argued to impart prudent fiscal management significantly, thus enabling the government to deliver the best services to their stakeholders. Through accrual financial reports, full information of the government's assets and liabilities is disclosed, hence, allows a sound decision making in the consumption of scarce resources (Ball and Pflugrath 2012; IFAC 2014). Additionally, many past studies reported that the incorporation of the accrual requirements in the financial statements had facilitated the organisations in moving towards full accrual accounting disclosure (e.g. Ingram and DeJong 1987; IFAC 2000; Deloitte 2013). Similarly, disclosure requirements and accrual accounting applications are ranked as some of the key influences on the financial accounts, and the quantity of information that should be disclosed under accrual basis, among others, consists of the information on the government's financial assets and liabilities (PwC 2013).

Therefore, it is vital for this study to examine the requirements and the extent of disclosure in the annual financial statements for the transition towards accrual accounting by the Malaysian public sector, with a special reference to the SLA. This study is distinctive as it contributes the perspective of a developing nation that has yet to fully implement the accrual system. However, it is not known to what extent the disclosure requirements and determinants have successfully contributed to the accrual accounting implementation in other settings of the public sector institutions which apply to the SLA. This consideration is perhaps due to the different sets of regulations and specific requirements adopted by the SLA. Hence, the practical problems as identified in this study provide an avenue for filling the research gap in the area of public sector accounting.

1.4 RESEARCH GAP

Theoretically, prior studies have revealed that the framework for accrual disclosure indices and the measurement of the quantity of accrual information in the annual financial statements are different from one country to another (e.g. Coombs and Tayib 2000; Pina, Torres and Yetano 2009; Ali and Saidin 2016). For instance, Coombs and Tayib (2000) adopt the Chartered Institute of Public Finance and Accountancy (CIPFA) Code of Practice on Local Authority as the guideline in examining the level of accrual compliance for the selected local authorities in the UK and Malaysia. On the other hand, Pina, Torres, and Yetano (2009) use IPSAS as a framework for the accrual disclosure indices in examining the published financial statements for the local governments in EU countries. While, Ali and Saidin (2016) develop a mandatory disclosure based on the statutory and non-statutory requirements, which applies only to the context of Peninsular States of Malaysia.

Therefore, the non-applicability of a single index has led to the various adoption of the statutory and specific disclosure requirements by different settings of the public sector institutions. These identified researchable gaps offer higher construct validity for this study to develop a self-constructed index to tailor to specific research questions (Webb, Cahan and Sun 2008) as some of the indices that are adopted and developed by the past studies might not totally be applicable to the SLA. The theoretical justification for developing the self-constructed index in measuring the level of accrual accounting disclosure in the SLA is based on the argument of Wallace, Naser, and Mora (1994) that there is no single best guideline that can be benchmarked as the index criteria.

Previous research has also widely investigated the determinants that influence the disclosure level. However, the findings of the studies are inconclusive and even contradictory (e.g. Copley 1991; Falkman and Tagesson 2008). For example, Ingram and DeJong (1987) and Gore (2004) in their respective studies report mixed results on the influence of the government's generally accepted accounting principles (GAAP) towards the financial disclosure between the regulated state and unregulated state. Furthermore, the determinants that have successfully contributed to the accrual accounting implementation in some countries may not be necessarily applicable to other countries, especially in the developing countries due to the different effects of the institutional pressures (Adhikari and Mellemvik 2010).

Hence, it is important to ascertain whether the empirical findings that are based on the developed countries or other developing countries can be generalised in the context of Malaysian public sector by taking the SLA as a case study in order to fill the research gap in this field of study. Besides, most prior studies in the public sector institutions employ a single year analysis, which limits the scope of the evaluation. In contrast, this study employs longitudinal panel data model from 2012 to 2015 to provide a better understanding of the association between the extent of accrual accounting disclosure and its determinants.

Likewise, having a comprehensive transition framework that prescribes all relevant requirements are required to put the governmental accounting innovation into real practice (Ouda 2010). Hence, several researchers have applied the contingency model as a result of the unavailability of a common reporting system (Marcuccio and Steccolini 2009). The contingency model has also undergone a series of revisions to allow the development of prescriptions to suit a different set of circumstances (Chenhall 2003). As such, the contingency model for the governmental accounting innovation which was initiated by Lüder (1992) for the developed countries has witnessed a series of revision by adding new variables to fit the requirements of the different countries (e.g. Pallot 1992; Christensen 2002; Ouda 2010).

Apparently, the prescriptive model which is employed as a framework for this study was designed to cater for the needs of the central government in developing countries as the result of the shortcomings found in the previous models. Despite the applicability of Ouda’s (2010) work, the model, perhaps is subjected to a further revision and extension to cater to the accrual requirements and extent of influences that exist in the context of SLA. Notwithstanding this, there are very limited studies in the context of local government in the emerging economies that apply the contingency model in examining the requirements that contribute to the transition towards accrual accounting which eventually contribute to the body of knowledge and fill the research gap.

Therefore, this study aims to obtain insights and deeper understanding on the disclosure aspects in the SLA's annual financial statements, the important requirements, and the extent of influences that contributes to the transition and the disclosure of accrual accounting information. This effort will eventually fill the research gap of how the public sector accounting reform is directed and benefit the transition towards accrual accounting in the Malaysian public sector by focussing on the SLA, thus achieving greater accountability and meeting the importance of reporting mechanism. Furthermore, there are very few studies in the Malaysian public sector that examine the disclosure requirements and the factors influencing the accrual accounting implementation. The identified research gap may also facilitate the financial transformation programmes as aspired by the Federal and State governments.

1.5 RESEARCH QUESTIONS AND APPROACH

Based on the preceding research background, research problem, and research gap, there are three particular research questions set to be answered by the thesis. Hence, the following research questions (RQ) with the employed approach[14] are designed to provide the specific guidelines for the study and fill the gap of what is known and unknown in the existing literature. In other words, this study aims at filling the existing research gap by taking the SLA as a case study which is addressed through the following research questions:

RQ1: What is the extent of the disclosure of accrual accounting information in the Sarawak local authorities' annual financial statements?

This research question examines the extent of the relevant accrual accounting item disclosed in the SLA's annual financial statements over the period of four years (2012-2015). The self-disclosure index instrument is constructed to measure the number of relevant accrual item disclosed by the respective SLA throughout the period studied. In this relation, the AGD has issued an accounting standard as a guideline for prescribing the presentation and disclosure of general purpose financial statements, as part of the effort of the Malaysian government to implement accrual accounting for the Federal ministries and State governments. Therefore, this study benchmarks

[14] Discussion on the rationality and appropriateness of each method is provided in Chapter 4.

MPSAS 1- Presentation of Financial Statements for considerations on the minimum requirement disclosure of the annual financial statements. The standard, which is based on the IPSAS is designed to facilitate the users in the preparation of annual financial statements by taking into account the suitable accounting policies and the local legislation context.

In the absence of an accrual guideline designed specifically for the SLA which are bound by the statutory requirements of the LAFR, MPSAS 1 can act as a benchmark for the preparation of annual financial statements. The study also benchmarks DBKU's annual financial statement which is voluntarily based on the minimum requirements of the PERS. To sum up, this study primarily adapts these three references, namely: (1) MPSAS 1- Presentation of Financial Statements and (ii) LAFR, as the statutory references and (iii) DBKU's annual financial statement for the year ended 2014. A few related prior studies are also benchmarked to enrich the information for the development of disclosure index instrument.

RQ2: Do technology infrastructure, the size of local authorities, qualification of accountancy personnel, audit institution size, and regulations have significant associations with the disclosure of accrual accounting information in the Sarawak local authorities' annual financial statements?

This research question critically examines the relevant factors that are significantly connected to the disclosure of accrual accounting information in the SLA's annual financial statements by conducting the various statistical analysis and testing the five testable hypotheses. Many reporting disclosures studies have tested the association between certain variables such as IT capacity, size, academic and professional qualification, audit institution size, and regulations, with the extent of disclosure. As such, it is imperative for this study to provide additional evidence to predict the relationship between the dependent and independent variables as stated above. The research adopts institutional theory to understand how the three types of different mechanism (isomorphism), namely: (i) coercive, (ii) mimetic, and (iii) normative, influence the disclosure of accrual accounting information.

RQ3 What are the requirements and extent of influences that contribute to the transition and disclosure of accrual accounting information in the Sarawak local authorities?

Besides the five variables (testable hypotheses) as stated in RQ2, there could be other requirements that influence the disclosure of accrual accounting information. The SLA and particularly the report preparer may have their explanations on the choice of accounting basis adopted by their respective councils. Therefore, RQ3 aims to identify the underlying reasons for the disclosure practices of the SLA, which is related to RQ1 and RQ2, as well as to explore the requirement and the extent of influences that link to the transition towards full accrual accounting practices in the SLA.

Primarily, the Ouda's (2010) extended contingency theory, termed as a 'Prescriptive Model' is adopted, through exploring all relevant factors such as behavioural, technical and capacity variables, which is done through qualitative method. The adoption of Ouda's prescriptive model may explain to what extent the use of different accounting basis in SLA can affect the characteristics and the pace of the transition towards accrual accounting. The perceptions and views of the SLA and the selected group of experts are also sought to explore the current state of financial reporting and disclosure practices which could substantiate the earlier findings of RQ1 and RQ2.

1.6 RESEARCH OBJECTIVES

Generally, the study seeks to explore the disclosure requirements for the transition towards accrual accounting in the Malaysian public sector with the focus on local authorities in the state of Sarawak. Specifically, the study aims to evaluate the extent of disclosure of accrual accounting implementation in the annual financial statements and also to examine the determinants associated with the transition towards accrual accounting.

Based on the research questions, three research objectives are developed in this study. The first objective seeks to measure the extent of the disclosure of accrual accounting information in the SLA's annual financial statements from 2012 to 2015. The second objective examines whether there is any significant association between the five SLA-specific determinants (technology infrastructure, the size of local authorities, qualification of accountancy personnel, audit institution size, and regulations) and the extent of the disclosure of accrual accounting information in the SLA over the period of the study. The third objective investigates the requirements and the extent of influences that contribute to the transition and disclosure of accrual accounting information in the Sarawak local authorities.

1.7 CONTRIBUTIONS OF THE STUDY

The significance of this study can be seen in many ways. This contribution can be segregated into four aspects, which are: (i) theory, (ii) knowledge and methodology, and (iii) policy and practice.

(i) Theory

In terms of the theoretical contribution, the study helps to fill the gap in the accrual accounting and reporting disclosure research by employing a combination of institutional theory and extension of contingency theory, using a prescriptive model developed by Ouda (2010). Specifically, the extended work of Ouda blended with the institutional isomorphism mechanism, namely: coercive, mimetic and normative (Meyer and Rowan 1977; DiMaggio and Powell 1983) are expected to provide new insights into the public sector accounting studies in the context of emerging economies. To the best of the researcher's knowledge, there is no published research on the MLA, particularly in Sarawak that specifically applies both theories in examining the accrual disclosure and its association with the tested hypotheses, as well as exploring the extent of influences that contribute to the transition to accrual accounting.

(ii) Knowledge and Methodology

Firstly, this study contributes to the public sector accounting studies by introducing the new disclosure index to measure the extent of accrual accounting disclosure for local authorities. There are relatively limited prior studies in the local government setting and most of the studies focus on the general disclosure of annual financial statement or mandatory disclosure (Ali and Saidin 2016). Therefore, the empirical findings provide some useful information to the accounting literature by constructing a disclosure index, which is based on the context of local government in the emerging economies, namely local government in the state of Sarawak, Malaysia. Subject to its applicability, future research may employ the accrual index especially in the context of local government in the developing countries and allow for a comparative study in other public sector settings.

Secondly, the use of an appropriate quantitative method will add a significant methodological contribution, which specifically applies institutional theory in examining the accrual disclosure and its association with the tested hypotheses. The tested hypotheses which have been successfully used in the developed countries may be able to provide new understanding on whether their association with disclosure practices is still valid in the current context and applicable for the developing countries such as Malaysia.

Thirdly, this thesis extends the use of an appropriate qualitative method to identify the requirements for the transition and disclosure of accrual accounting in the SLA. As a matter of fact, most prior studies have not deployed primary data using focus group interview for validating the underlying reason in the reporting disclosure practices. Therefore, the study findings may contribute to the extended version of Ouda's prescriptive model of the transition to accrual accounting by applying it in the context of local government, particularly in the emerging economies.

Finally, through mixed method research in which examination on the annual financial statements is complemented by the disclosure index approach, statistical analysis and focus group interview, the robustness of disclosure index output and the exploration of determinants that influence the disclosure of accrual accounting information can be achieved.

(iii) Policy and Practice

This study, which covers on the examination of the annual financial statement and its association with the requirements that contributes to the transition and disclosure of accrual accounting information in the SLA is deemed to be in line with the current national aspiration. Therefore, it is able to provide valuable evidence towards the adoption of accrual accounting practices as espoused by the Malaysian government and the Sarawak government, particularly under the financial management transformation of the SCS 10-20 Action Plan.

Secondly, to the best of the researcher's understanding, there is a dearth of published studies in the context of MLA that analyse the disclosure requirements in the annual financial statements and the factors influencing the accrual accounting implementation. The majority of prior studies in the Malaysian public sector (e.g. Coombs and Tayib 2000; Omar, Amran and Aripin 2005; Mohamed, Atan and Ab Majid 2012) focus only on the local government in the Peninsular States of Malaysia. The exclusion of local government of Sarawak in their samples is perhaps due to the different regulations and specific disclosure requirements applied to the SLA's annual financial statements as compared to their counterparts in the Peninsular States. Therefore, the study output could provide empirical evidence, particularly to the policy makers in the state of Sarawak.

Thirdly, the findings of the study unveil some useful information by developing a new disclosure index instrument based on the framework of the SLA by incorporating accrual accounting disclosure requirements. By having a standardised reporting disclosure, it will lead to the harmonisation of the presentation of annual financial statements and accounting practices amongst the twenty-six local governments in Sarawak, Malaysia.

Fourthly, the study unveils how requirement factors and the views of the SLA could encourage the implementation and disclosure of accrual accounting information in the SLA. In addition, the results of this study reduce the gap of what is known and unknown about the government accounting practices in the SLA, thus impart empirical evidence to the policymakers, regulators, legislators, the respective ministries, SLA themselves, and also the general public.

Finally, the study casts a light on the needs to produce an acceptable reporting mechanism under the accrual accounting practices that allows the assessment and monitoring of the SLA's financial performance by the general stakeholders. By adopting an accrual system, it would enable the SLA to manage the cost of providing the services and the ability to provide accurate reporting of revenue and expenditure, thus highlighting the importance of transparency and accountability in the public sector settings.

1.8 SCOPE AND LIMITATIONS OF THE THESIS

By using a case study of the local government in the state of Sarawak, this study examines the evidence of the disclosure requirements extracted from the annual financial statements and a slew of internal documents, as well as the facts and information of actors directly involved in the preparation of annual financial statements. The followings are the scope and limitations of the study.

Contrary to their counterparts in other states in Malaysia, the SLA's financial reporting practices are very much different, resulting from dissimilar financial regulations and infrastructures, and a study conducted by Ernst & Young (2009) reveal that the majority of the SLA are still using modified cash accounting. Thus, this study only confines itself to an evaluation of financial accounting and reporting for the local government in the state of Sarawak. The main motivations for selecting the SLA are due to a limited number of studies conducted on the financial accounting and reporting aspects, apart from the state of origin of the researcher.

The study only covers financial accounting and reporting through the examination of annual financial statements from 2012 to 2015. The study does not include other broader financial aspects such as budgeting and auditing due to time and resource constraints. Annual financial statements in the period from 2012 to 2015 and five selected hypotheses are selected due to various reasons, such as the initiation of the SCS 10-20 Action Plan in 2012 and the three types of institutional isomorphism that may influence the disclosure of annual financial statements (refer section 4.5 and subsection 4.6.1). For the qualitative part, a focus group is chosen by taking into account of some reasons such as geographical and accessibility factors of the state of Sarawak which may pose extra time and costs for data collection (refer subsection 4.7.1).

1.9 ORGANISATION OF THE THESIS

The thesis is organised into seven chapters.

Chapter 1: It presents an introduction to the current study. Specifically, it presents background of the study, research problem, research gap, research objectives, questions and approach, contribution, scope and limitations of research. A brief outline of the organisation of the thesis structure is also provided.

Chapter 2: It focusses a general review of the public sector accounting in Malaysia and narrows down to the SLA. Firstly, it discusses the public sector setting in Malaysia and highlights the chronology of the accounting development. It also lays the ground by giving some studies on accounting and reporting in the MLA. Then, the chapter provides an overview of SLA by discussing the disclosure requirements and issues on the accounting and reporting practices. The final section of the chapter recaps its main points.

Chapter 3: Generally, this chapter examines literature regarding the transition process towards accrual accounting and financial reporting disclosure requirements. Firstly, this chapter presents background information about public sector accounting development and framework, beginning with the discussions on public sector reform, as well as the overview, spectrum and types of public sector accounting and reporting. Secondly, the chapter elaborates the processes leading to the accrual accounting implementation. It starts with the debates on cash accounting followed by the discussion on characteristics, benefits, critiques, and requirements for the transition to an accrual-based system. Thirdly, the chapter provides empirical evidence on the financial reporting disclosure requirement studies. The literature on this section delivers supports in answering RQ2. Fourthly, the chapter contextualises the theoretical foundation which explains the reasons for the transition towards accrual accounting. The chapter ends with the conclusion of the literature review.

Chapter 4: Chapter 4 outlines the research methodology, methods and hypotheses development which designate a thorough description of research design for gathering and analysing data. The chapter commences with the discussion on the research paradigm and methods, as well as hypotheses development and conceptual schema.

Next, the chapter particularises the construction of the disclosure index instruments employed in the quantitative phase. Also, the measurement of the independent variables and the statistical analysis techniques are presented in this chapter. Finally, it proceeds with the discussion on the research design for the focus group interviews.

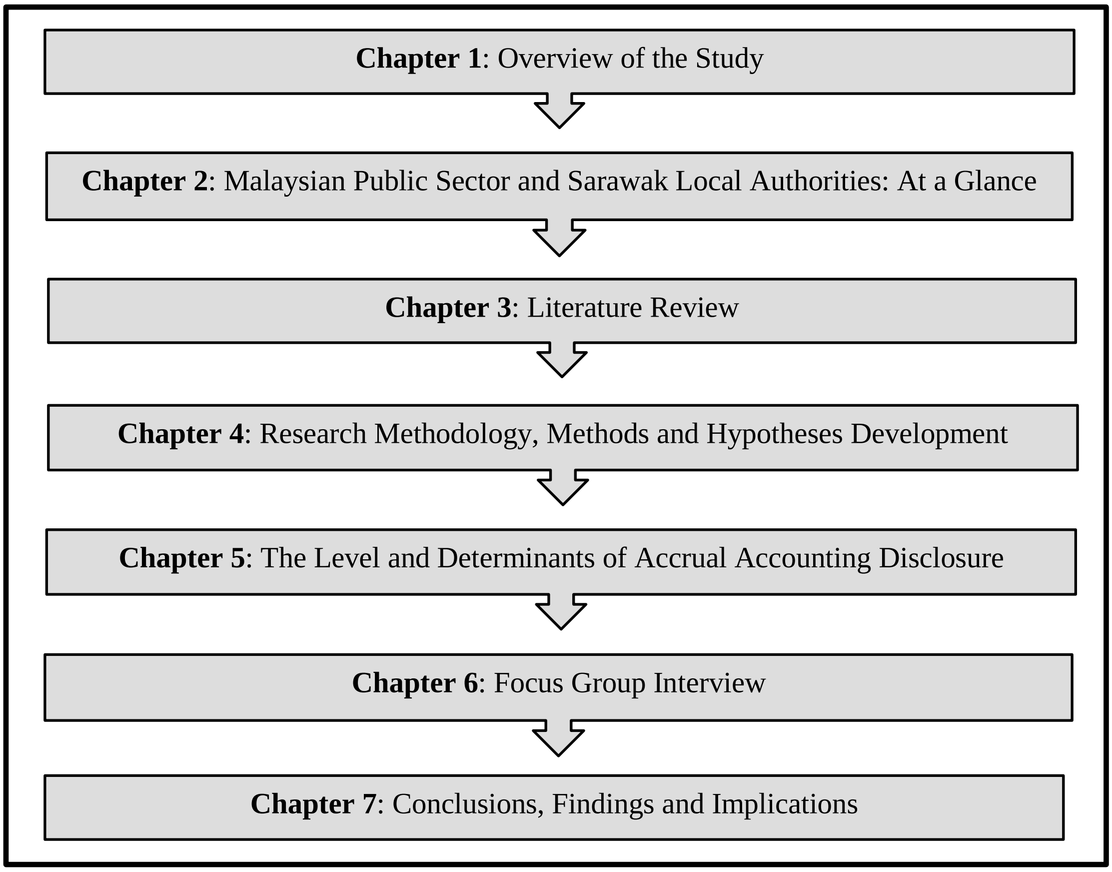
Chapter 5: This study then proceeds with Chapter 5, which answers the first two research questions. This chapter draws on empirical evidence obtained from analysis of secondary data, i.e., the SLA's annual financial statements, and the government's internal documents. Specifically, the empirical results are presented in the form of the descriptive statistics of SLADI for RQ1 and, univariate, bivariate and multivariate analysis of the hypothesis for RQ2. Here, connections are also made to prior literature reviewed and the institutional theory to gauge the relevance of study findings or otherwise.

Chapter 6: This chapter presents the data findings from RQ3 of the focus group interview, with eight finance officers from the SLA and five participants from the group of experts, representing various government institutions and private sectors. This chapter highlights the requirements and the extent of influences that contribute to the transition and disclosure of accrual accounting information which also complement the findings from RQ1 and RQ2 respectively. The interview findings are then allied to the prior literature and the Ouda's extended contingency theory (prescriptive model).

Chapter 7: The final chapter concludes the study by providing a brief summary of the research objectives, methodology and methods, as well as the main empirical findings. The chapter also recognises the theoretical and practical contributions, highlights the strengths and limitations of study, and identifies areas for future study. The study finally concludes.

A diagram summarising interlinks between chapters in the thesis is depicted in the following Figure 1.1

Figure 1.1: Diagram of the Thesis Structure



1.10 SUMMARY

This chapter presents an overview of the research background of the public sector reforms which has triggered the use of accrual accounting practices in the preparation of annual financial statements, either in the context of developed countries or emerging economies. The chapter also highlights the efforts taken by the Malaysian and Sarawak governments in introducing the financial transformation agenda which have inspired the adoption of accrual accounting in their public institution settings. The chapter also discusses the motivations for conducting the study, the three research objectives and questions, the contributions and the limitations of the thesis. In addition, the chapter has also summarised the structure of the thesis. The next chapter provides an overview of public sector accounting in Malaysia and the SLA notably.

CHAPTER 2

MALAYSIAN PUBLIC SECTOR AND SARAWAK LOCAL AUTHORITIES: AT A GLANCE

2.1 INTRODUCTION

Chapter 1 has provided the background and motivation to undertake this study. This chapter lays out the perspectives of Malaysian public sector by presenting the development and issues surrounding the Malaysian governmental accounting generally, and the SLA particularly. First, Section 2.2 discusses the structure and development relating to the public sector in Malaysia. It includes the discussion on the position of the local authorities in the hierarchical governance structure as well as the financial reform development in Malaysia. Next, Section 2.3 reviews selected literature on accounting and reporting in the MLA. Then, Section 2.4 presents an overview of the SLA by focussing on the financial sources and disclosure requirements as well as financial management issues. Lastly, the final section provides a chapter summary.

2.2 PUBLIC SECTOR IN MALAYSIA

Various understandings emerge in defining the meaning of a public sector. Simply, Hughes (2003, 73) defines a public sector as “the result of public, political decision-making, rather than involving market processes”. However, Lane (2000) views public sector as a government division, which involves with kind of public activities such as regulation, redistribution and allocation of resources in serving the interest of citizens. In this study, the public sector is viewed in understanding two criteria: structure of the public sector and the development of accounting in the Malaysian context.

2.2.1 Structure of Public Sector in Malaysia

Malaysia is a nation of 13 autonomous states and three federal territories. It is also segmented into three tiers: Federal, State, and Local governments. The Federal government is the highest level, encompasses ministries, departments, and public enterprises, which has the authority over several functions such as defence, internal security, and finance as listed in the Ninth Schedule (List 1) of the Federal Constitution. The second segment of the government is represented by the State government, headed by the Ruler or the ‘Yang Dipertua Negeri’[15], and assisted by the Chief Minister or the ‘Menteri Besar’ through ‘Majlis Mesyuarat Kerajaan Negeri (MMKN)’[16] (Rauf et al. 2012).

Meanwhile, the Local government represents the lowest level of Malaysian government structure, which administering their respective jurisdiction, after Federal and State governments. The local government in the states of Peninsular Malaysia is bound to the Local Government Act (LGA) and falls under the purview of the Minister of Urban Wellbeing, Housing, and Local Government. On the other hand, the local government in the state of Sabah and Sarawak is governed by the Local Government Ordinance (LGO) 1961 and the LAO respectively, which fall under the jurisdiction of each State government respectively. Except for those in the three federal territories, all local governments are subject to the state list as enshrined in the 9th Schedule of the Federal Constitution. In principle, the Malaysian Local Authorities (MLA) are duty-bound to serve their constituents by providing public amenities, public health and environment, enforcement and licence grant, social and community services, and development.

At present, there are 149 local governments in Malaysia, constitute of three categories: city, municipality, and district councils. This includes 26 local authorities in the state of Sarawak. Out of 12 city councils, only three capital cities which are Kuala Lumpur, Kota Kinabalu, and Kuching North have been granted a status of ‘City Hall’. As stipulated under the Circular KPKT Ref. 4/2008, the councils’ categorisation is based on a few criteria, such as a total number of population and income, infrastructure, utility and service delivery capacity as well as new development potential. Despite the categorisation factors, all local governments perform similar functions and the district council can be upgraded to the municipality and up to city status once it fulfils the required criteria.

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[15] The ‘Yang Dipertua Negeri’ is the official title of the ceremonial Governors/ Head of State of the four states without monarchs (State rulers), namely: Penang, Malacca, Sabah and Sarawak.

[16] The ‘Majlis Mesyuarat Kerajaan Negeri (MMKN)’ refers to the State Executive Council, the governing body led by the Chief Minister for the four states: Malacca, Penang, Sabah, and Sarawak, and ‘Menteri Besar’ as in the case of the nine states: Perlis, Kedah, Perak, Selangor, Negeri Sembilan, Johor, Pahang, Terengganu and Kelantan. The main functions of the MMKN are to develop and administer the state government affairs.

Except for the SLA, which are executively represented by the Council's Secretary, all municipality and district councils in other parts of Malaysia are generally led by a public official who carries the title 'President'. Likewise, the executive powers in the city councils lie with the Mayor. The council decision-making process is conducted through an establishment of various committees which may be determined by the ministers or the respective local authorities. Each State government has full authority to appoint the councillors who act as the advisory committee for the local authority. Generally, the appointments of councillors in Malaysia are based on the political attachment with the ruling government, unlike in the case of most countries, which is executed through local elections (Khalid 2010).

2.2.2 Development in Malaysian Public Sector Accounting

As discussed in Chapter 1, the Malaysian public sector has undergone significant reforms in the 1980s since the reign of the 4th Prime Minister of Malaysia and the changes in government administration have also incorporated financial management aspects. Prior to the accrual accounting reform, the changes in the Malaysian governmental accounting have revolved around management accounting. The reform started with the initiation of the Financial Procedure Act and the Audit Act in 1957, followed by the budgetary reform through the institution of various types of budgeting system (Saleh 2013).

The initial phase of budgetary development began with the introduction of Traditional Budgeting System (TBS), also known as 'traditional/line item budgeting' (Saleh 2013). Due to its ineffectiveness as a tool for policy execution, the TBS was then replaced with the Program and Performance Budgeting System (PPBS) in 1969 (Rauf et al. 2012). The PPBS, modelled after the US-Canadian approach had only lasted for about 30 years due to various challenges such as inadequate relationships between input and output and lack of control evaluation (Siddiquee 2010; Rauf et al. 2012).

Subsequently, the Modified Budgeting System (MBS), a revision of PPBS was introduced in 1990 which focussed on the performance measurement and programme evaluation (Saleh and Pendlebury 2006) and emphasised on the relationship between input, output, and impact (Rauf et al. 2012). Besides, the MBS was designed to assist each program or activity towards realising the organisation's objectives, thus facilitating performance evaluation (Siddiquee 2010). Under this system, the philosophy of 'let managers manage' was emphasised in inculcating a more responsible 'accounting officer'[17] (Saleh 2008). Correspondingly, the Micro Accounting System (MAS), which developed based on the Activity Based Costing features was introduced in 1992 to supplement the information provided by MBS and facilitate the transition towards accrual accounting (Saleh and Pendlebury 2006; Saleh 2013).

In another development, the first change of governmental accounting basis for the Federal and State governments was reported in 1974, whereby the modified cash accounting was introduced to replace cash accounting practices (Salleh, Aziz and Bakar 2014). In 1982, the format of public accounts was then simplified by incorporating a Statement of Assets and Liabilities, and in 1984, a computerised accounting system was introduced by the AGD (Saleh 2013). The introduction of the computerised accounting system, triggered from the complexity and increasing volume of financial transactions, has facilitated the government in producing a quality financial information and accounting report (Ilias and Zainudin 2013).

In 1995, the Malaysian government set another landmark by setting up the public accounting standard committee and working group which triggered the use of computerised accounting system, known as Standard Accounting System (SAGA) for the preparation of annual financial statement of the statutory bodies (Saleh 2013). The advancement of IT has seen another enhancement of budgeting and accounting system through the introduction of 'Electronic Budgetary Planning and Control System' in 2000, and 'Standard Computerised Accounting System of State Governments' in 2005 respectively (Rauf et al. 2012). In another development, a flexible, integrated and hybrid system called as 'Government Financial Management Accounting System (GFMAS)' was introduced by the Accountant General's Department of Malaysia

[17] As stipulated under Section 3 of the Financial Procedure Act 1957, 'accounting officer' includes every public officer who is in charge of the duty of collecting, receiving, or accounting for, or who in fact collects, receives or accounts for, any public moneys, or who is in charge of the duty of disbursing, or who does in fact disburse, any public moneys, and every public officer who is in charge of the receipt, custody or disposal of, or the accounting for, public stores or who in fact receives, holds or disposes of public stores.

(AGD) in 2006 to support the efforts towards accrual accounting implementation (Rauf et al. 2012).

As presented in Chapter 1, the implementation of accrual accounting has been designated as a policy measure under the New Economic Model (NEM) in 2010, and the full implementation in the Federal government is expected to take place in 2018 and subsequently, the State governments in 2019 after a series of postponement. This new policy measure has also prompted a development of a specific accounting standard known as Malaysian Public Sector Accounting Standards (MPSAS) in which the first standard was published in 2013 by the AGD. The full adoption of the whole standards by 416 statutory bodies, local governments, and religious departments at the level of Federal and State governments will take effect in 2020[18].

The series of development discussed above have brought a new horizon in modernising governmental accounting. This witnesses the introduction of accrual accounting as one of the most challenging reforms that Malaysian government undertakes. The need to change to accrual-based accounting requires a lot of concerted efforts and resources to realise the implementation plan successfully. However, the question remains as to whether the application of the whole standards of MPSAS could be extended to the SLA, which has a different set of regulations and specific requirements as compared to other public sector settings in Malaysia. The milestone of the development of public sector accounting in Malaysia is presented in Appendix 2.1.

2.3 STUDIES ON ACCOUNTING AND REPORTING IN THE MALAYSIAN LOCAL AUTHORITIES

As briefly discussed in Chapter 1, most of the accounting and reporting studies are confined to the Peninsular States of Malaysia, and there are very limited recent studies focusing on the local government. One of the earlier studies in investigating financial reporting was conducted by Tayib, Coombs, and Ameen (1999) who aimed to ascertain the association between the users' demand for the MLA's financial report and the statutory requirement. The study revealed that multitude weaknesses of statutory requirements had created a lacuna regarding the users' expectation and needs from the

[18] This information was obtained from the AGD during the Seminar of the Malaysian Public Sector Accounting Standards for the Statutory Bodies, Local Government, and Religious Department in Sarawak in October 2017.

financial reports. It appeared that different financial reports disclosures among MLA are caused by several factors such as the lack of specific accounting standards and disclosure presentation designed for local authorities, as either contained in the LGA or Federal Treasury Circular (FTC). The study also postulated that insufficient financial disclosure has resulted in high amount of tax arrears as the needs for a full range of information could not be made available to the local taxpayers.

In another related studies, Coombs and Tayib (2000) analysed the financial reporting disclosures of five local authorities in the Peninsular States of Malaysia. By comparing the disclosure practices between Malaysia and the UK, the study found that past connection between the two countries did not exert any influence on the reporting structure of the MLA's published accounts. In Malaysia, the absence of such body similar to the CIPFA of the UK in overseeing the formulations of accounting standards has resulted in the public sector financial reporting comparatively sluggish. Interestingly, the MLA reporting was much influenced by the external auditor's recommendation by referring to the FTC. Apart from that, the accessibility to the financial report was relatively difficult and timely. The study concluded that the relationship between MLA's governance structure with the Federal and State governments had caused the improvement in disclosure practices to be less conducive.

In the context of the reliability of the financial information, Ibrahim et al. (2004), examined 70 local authorities' annual reports covering the years from 1997 to 2001 in four northern states of Malaysia. It was discovered that more than three-quarters of the local councils received 'Qualified Certificate'[19] about the financial statement auditing. The non-audit compliances mostly resulted in a series of weaknesses found in the fixed asset register, other receivables, cash flow statements, and deposit and general guarantee accounts.

[19] 'Qualified Certificate' is produced by the National Audit Department of Malaysia in a situation where the auditor is dissatisfied with certain aspects of the financial statement on the fairness of the presentation, accounting principles applied or consistency. Qualifications resulting from restriction of scope may also be made.

Another study conducted by Omar, Amran, and Aripin (2005) revealed that the accrual accounting implementation by the local authorities in the northern state of Peninsular Malaysia was not fully successful due to the ambiguous reporting requirement and lack of human resource capacity despite a positive trend towards the acceptance of adoption. The study found that the level of accrual disclosure, especially on the income and expenses items were still considered low, and only five local authorities in that study disclosed the use of accrual principle as the accounting basis in the notes to account. Meanwhile, the other six local authorities did not disclose any information of accounting basis used in the preparation of the annual financial statement, perhaps due to lack of clear legislative provisions.

Mohamed, Atan, and Horoen (2006) in their study on the need for accounting standard for the MLA suggested for the establishment of a special body dedicated to the development of a common set of accounting standards for the MLA. A close synergy among multiple parties was advocated by getting the involvements of various Federal government machineries, the State and Local governments as well as the professional bodies. The study also claimed that a high number of local authorities with deficits of revenue over expenditure was linked to the unavailability of standardised accounting regulations being practiced resulted in a poor quality of financial information. Mohamed et al. (2010) also concurred with the idea of having a common set of accounting standard in overcoming the loopholes of financial reporting requirements in the MLA.

Another study evaluating the financial reporting quality was performed by Abu Hassan, Hassan, and Md Nor (2007), covering a population of ninety-six local authorities in all states in Peninsular States of Malaysia using a modified Local Government Accountability Index. The study findings revealed that the reporting quality was still below the satisfactory level. It was also testified that the size, wealth, and qualification of chief accounting officers affected the level of disclosure quality among the local authorities being studied. Nonetheless, timeliness of financial report was found not to pose any significant association with the reporting quality.

In contrast to Abu Hassan, Hassan, and Md Nor (2007), a prior study conducted by Ahmad and Abdul Aziz (2005) investigating the audit lags of local authorities in the state of Johor, Malaysia stated that timeliness factor determined the quality of financial reports apart from the type of local authority. A later study by Mohammad, Abdullah, and Deris (2014) also agreed that timeliness is an important criterion contributing to the high quality of accounting disclosure. The study which examined the Auditor General's Report and Financial Management Performance of the three local authorities in Peninsular Malaysia discovered that accountability index and council size were significantly linked to the timely financial reporting.

Mohamed, Atan, and Ab Majid (2012) in their analysis of seventy-five local authorities in 11 states of Peninsular Malaysia compared the financial statements presentation format from years 2004 to 2008. Examination of reporting format was concentrated on the Statements of the Financial Position and Statements of the Financial Performance. In the absence of a common set of accounting standard covering the form and content of the financial reporting, it was found that the disclosure of the Statements of the Financial Performance varied among 11 states. Nevertheless, the presentation of the Statements of the Financial Position reported improvements regarding the uniformity of disclosure, particularly in 2008. The study also urged the local authorities in the Peninsular States to adopt a single set of reporting format, which consequently facilitated them to migrate from modified to full accrual accounting practices successfully.

Ali and Saidin (2016) in their recent study developed a mandatory disclosure index which applied to the Peninsular States of Malaysia. By using the legal and regulatory requirements, the study constructed 63 disclosure items from the six categories, namely: contents of financial statements (7 items), balance sheet (19 items), statement of income and expenses (23 items), cash flow statement (4), notes (7), and other disclosure requirement items (3). However, the study did not measure the quantity or quality of items disclosed in the financial statements of the MLA based on that constructed index, and the construction of index was limited by the number of financial statements supplied. Comparatively, the number of disclosure items varies for the MLA of which Coombs and Tayib (1998) recommended 55 disclosure items for the statutory and non-statutory index by benchmarking the CIPFA's requirements in comparing the five local authorities in the Peninsular States of Malaysia with the selected local authorities in the UK.

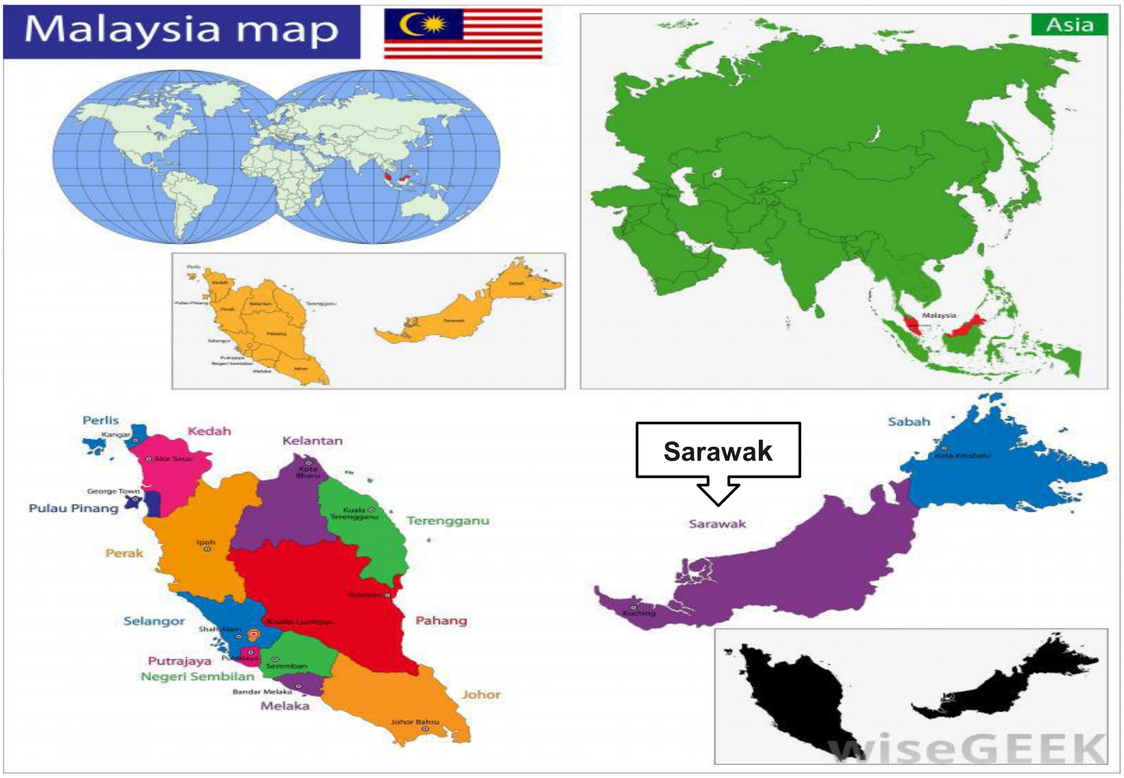
As stated earlier, the studies discussed above showed a limitation that the coverage was only confined to the local governments in the Peninsular States of Malaysia. None of the studies extended the research methods from a quantitative approach per se to be attached with the interviews to gain deeper explanations and to widen explorations. Furthermore, at the time when this study was conducted, literature on the local government's accounting and reporting practices remained limited in Malaysia. A summary of the accounting and reporting studies in MLA is presented in Appendix 2.3.

2.4 OVERVIEW OF THE SARAWAK LOCAL AUTHORITIES (SLA)

Sarawak is a Malaysian state, located in the northwest of Borneo Island with a size of approximately 122,499 km^2. Historically, Sarawak was once ruled by the 'White Rajahs'[20] for about a century, later colonised by the British and subsequently in 1963, formed in the Federation of Malaysia. Due to its long history of being colonised by the White Rajah and British, the Sarawak government arrangement is closely modelled after the Westminster system. As the largest state in Malaysia, Sarawak is a home to over 25 ethnic groups with a population of 2.6 million, flourishing with precious rainforest, yet striving to be at the forefront of modern technology and communications. The location of Sarawak in Malaysia on the world map is depicted in Figure 2.1.

[20] The 'White Rajahs' was a dynastic monarchy of the English Brooke family, who founded and ruled the Kingdom of Sarawak from 1841 to 1946. Inevitably, they brought with them the system of government and practices that were a resemblance to the UK's structure.

Figure 2.1: Location of Sarawak in Malaysia within the World Map



The 'Yang Di-Pertua Negeri', commonly known as the Governor is the head of Sarawak while the State government is headed by the Chief Minister. Geographically, Sarawak is divided into 12 divisions, 40 districts and 26 sub-districts. Each division is led by the Resident, while districts and sub-districts are supervised by the State Administrative Officers. The administrative machinery of the Sarawak government is headed by the State Secretary, cascaded down to the Ministries, Departments, Resident and District offices, Local Authorities, and Statutory Bodies.

Local authorities in Sarawak consist of three city councils, four municipal councils and nineteen district councils (refer Table 2.1 and Appendix 2.2). The three city councils are headed by the Mayor, while municipal and district councils are led by the Chairman who are politically appointed by the 'Yang Di-Pertua Negeri'. In the case of Kuching North City Hall (DBKU), the Director is the Chief Administrative Officer (CAO) of the Commission as stipulated under Section 8 (2) of the City of Kuching North Ordinance 1988. Bintulu Development Authority (BDA) which performs dual functions, namely: development and local authorities, is executively administered by the General Manager, appointed under Section 18 of the BDA Ordinance 1978. The remainder of SLA are headed by the Secretary, being the Chief Administrative Officer (CAO) as covered in Section 35 of the LAO.

Table 2.1: List of Sarawak Local Authorities

City Council	Municipal Council
Kuching North City Hall (DBKU) Kuching South City Council (MBKS) Miri City Council (MCC)	Bintulu Development Authority (BDA) Sibu Municipal Council (SMC) Padawan Municipal Council (MPP) Kota Samarahan Municipal Council (KSMC)[21]
District Council	
Lawas District Council Limbang District Council Marudi District Council Subis District Council Kanowit District Council Kapit District Council Maradong & Julau District Council Matu-Daro District Council Mukah & Dalat District Council Saratok District Council	Sarikei District Council Bau District Council Betong District Council Lubok Antu District Council Lundu District Council Serian District Council Simunjan District Council Sri Aman District Council Sibu Rural District Council

Being the lowest tier in the government hierarchy, each SLA serves the community under its jurisdiction directly. Therefore, as stipulated under Section 98 of the LAO, the SLA are entrusted with a very extensive range of power to execute the general duties of the local authority. In a simpler term, the SLA are duty-bound to implement or assist the State government for works, projects and schemes which include the maintaining a good and healthy standard of living for the people within its area of jurisdiction. The SLA are also responsible for aiding the collection of revenue due to the Federal and State governments.

In carrying out the general duties, the twenty-four local authorities are assisted by the advisory committee, known as ‘Councillors’. In the case of DBKU and BDA, the committee is called ‘Commission Members and Board Members’ respectively. They are appointed by the ‘Yang Di-Pertua Negeri’ or in the context of DBKU, through the ‘Majlis Mesyuarat Kerajaan Negeri’ (MMKN) which is based on certain merits, such as possessing vast experiences and being knowledgeable in the local authority’s affairs

[21] Kota Samarahan Municipal Council, previously known as Samarahan District Council was officially elevated to “Municipality’ status, effective 11th November 2016.

and also being capable of representing the voice of their communities. The appointed Council members are involved in the Council's decision-making process through the establishment of the various committee systems. The committees, such as the Finance and Tender Committee[22] are established to execute several tasks, and each SLA has a different number of committees.

2.4.1 Financial Sources and Disclosure Requirement of the SLA

As the lowest rank in the Sarawak state government structure, local authorities serve directly to the constituents within their area of jurisdiction under the power conferred by the LAO. In doing so, the SLA must have adequate funding in financing their activities as service providers and architects of the socioeconomic growth. There are two types of SLA expenditures, which are the operating and development expenditures. Operating expenditures cover expenses incurred in executing the daily operation, among others that include maintenance, administration, and emolument. Likewise, development expenditures relate to a huge amount of funding needed for payment of the road, drainage, buildings and other infrastructure constructions. No such payment is allowed if these two types of expenditures are not budgeted for, or authorised by the LAO or any other written laws, or approved by the MMKN.

On the other hand, the SLA's sources of income can be constituted into two types of funding, which are internal and external. Generally, internal funding is generated within the localities, such as assessment rates, licenses and permits, parking, and dividend received from the investment. Meanwhile, the sources of external funding derive from statutory grant (e.g., road maintenance grant) and non-statutory assistance (e.g., contribution in aid of rates) as stipulated under the Federal Constitution and loan borrowing with the consent of MMKN.

Specifically, Section 39 of the LAO spells out the local authorities' source of revenue. Traditionally, the SLA have been depending on the revenues from taxes, rates, levies, rents, license fees, dues and other sums or charges payable to the SLA, as well as all

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[22] In the case of DBKU, the Finance and Tender Committee acts a body to advise and endorse any financial and procurement matters. These include endorsement of annual financial statements, tender award, and general financial control and policy. All paper meetings are then tabled to the Commission committee (full Council meeting) for approval.

charges or profits derived from services rendered by virtue of the powers vested in them. The rest of the revenue is all interest accrued on monies invested by the SLA and all income arising from or out of the property or any other revenue as approved and declared to be the revenue of SLA. Another form of revenue comes from the Federal and State governments or any statutory body or any other sources, like grants, loans, contributions, endowments or otherwise. The SLA are also allowed to obtain advances in the form of overdraft with the written approval of the minister-in-charge. As governed by Section 46 of the LAO and Regulation 34 of the LAFR, the SLA are given the authority to generate renewal and insurance funds to make payment for the replacement of assets and contingent liabilities.

Every local authority must also prepare and present for auditing the annual statement of the preceding financial year within four months following the close of the financial year. The annual financial statements are subject to various inspections, examinations, and certifications by the appointed external auditor which acts on behalf of the Auditor General. These practices ensure that the financial regulations or any other written government circulars are being complied by the SLA. The compliance also includes presenting a true and fair view of the financial position of the SLA and all the requirements set by the appointed auditor.

Apart from the LAO, the LAFR is the other source of references which govern the financial management practices of the SLA. There are various regulations stated in the LAFR, discussing on the accounting principles and procedures, as well as a form of financial statements that shall be followed by the SLA. For instance, Regulation 19 of the LAFR requires the SLA to follow the Generally Accepted Accounting Principles (GAAP) in maintaining proper books and accounts. The regulation also states if there is a conflict between legal provisions and GAAP, the statutory requirements shall take precedence. However, Regulation 19 does not clearly state what is constituted by the GAAP and what is meant by proper practices of the accounting basis. As a result, it may create an adoption of a 'self-generated accounting principles' (Coombs and Tayib 2000), in the form of combined statutory requirements and best accounting practices.

In another context, Regulation 16(1) of the LAFR stipulates that expenditures which are incurred in the preceding financial year are allowed to be paid within the month of the succeeding financial year and reported as expenses in the prior financial year. This accounting treatment is consistent with the practices adopted by the Federal and State governments in Malaysia, which use the modified cash basis of accounting. Drawing from these two regulations, all material aspects of bases and policies pertaining to the accrual accounting framework do not clearly define the presentation and preparation of annual financial statements. As such, the use of accrual accounting system is only guided either by a review of best practices or recommendations made by the Auditor-General.

In terms of the disclosure of the annual financial statements for auditing, a statutory declaration signed by the Chairman and the Secretary of the SLA will be accompanied by the reports shown below, as required under Regulation 39 (1) of the LAFR:

(i) The Annual Abstract Accounts;

(ii) The Statement of Assets and Liabilities;

(iii) The Detailed Statement of Revenue;

(iv) The Detailed Statement of Expenditure;

(v) The Detailed Statement of Advances (by types);

(vi) The Detailed Statement of Deposits (by types);

(vii) The Statement of Reserve Fund;

(viii) The Statement of Renewals Fund;

(ix) The Statement of Trading Accounts (if any);

(x) The Debtors' Accounts;

(xi) Any other accounts or records which may be called for by the Auditor General or the Minister; and

(xii) Comparison of actual against estimated revenues and expenditure.

Additionally, Regulation 23 of the LAFR outlines that the SLA's annual financial statements shall be prepared on a comparative basis showing the corresponding figures of the immediately preceding period. If changes have been made during the current period in the manner of presenting specific items in the accounts, the figures for the preceding period shall be adjusted to conform to the new basis or disclosed in a note to the accounts, if required to do so.

2.4.2 Financial Management Issues in the SLA

Currently, the SLA are subjected to various types of audits undertaken by the NAD such as financial statement/attestation audit, financial management (accountability index) audit (FMAI), and performance audit. As reported by the NAD (2014c), among the reasons for conducting various audits are to enhance accountability and integrity for managing the public resources, and improve the financial management activity. Consistent with Section 7 (2) of the Audit Act 1957, the private audit firms are appointed to execute an examination of the SLA's annual financial statements on the Auditor General's behalf, which consequently add value to the auditing quality.

With respect of the SLA's annual financial statements auditing, various financial management issues arise, which include accounting and reporting matters. The majority of issues have been repetitively highlighted by the National Audit Department (NAD) through the Auditor General's Report. Among the repetitive issues are the late submission of annual financial statement for auditing, non-clean 'audit certificate'[23] high percentage of assessment rates arrears, reserve depletion, as well as the internal control and financial position weaknesses (NAD 2010, 2011b, 2012, 2013b, 2014b).

Based on the Auditor General's Report 2010, it was found that the overall management of the computerised accounting system used by the district councils is still below the satisfactory level (NAD 2011a). Some previous issues such as system disintegration, inability to extract payment data and creditor record, and excessive use of manual

[23] An 'audit certificate' refers to a formal opinion issued by the NAD pertaining to the auditing of the annual financial statements, consists of four types, namely: disclaimer, adverse, qualified, and unqualified. Except for the unqualified certificate, the remainders (non-clean audit certificates) are issued if the provision of the LAO or any other written laws has not been carried out or that any acts, matter or things have been performed or carried out without due authority. As required by Section 58 (3) of the LAO, the audit certificate is issued alongside the financial affairs of the SLA.

functions, lead to rampant occurrence of data manipulation. The audit findings also revealed that the management of assets in the three city councils was found not to be carried out properly. An incomplete record of maintenance and disposal, as well as underutilisation on the usage of vehicle are some of the issues reported.

With regards to the implementation of Financial Management Accountability Index (FMAI), some of the issues discovered were the poor handling of the asset management and lack of control of the Trust and Deposit account (NAD 2013b). Other than the issues related to the financial accounting and reporting, there were some flaws found in the implementation of the development project, such as non-compliance on the quality and work specifications, delay in project completion, improper project planning, and lack of site supervision (NAD 2013a). Equally, there were numerous non-compliance issues reported in the procurement management of the SLA such as improper charging of expenditure subhead, breaching of defect liability period, a late payment on the performance bond, work performed not according to the scope, and unnecessary purchase of inventories (NAD 2014a, 2015a).

In another aspect, the Auditor General's Report for the year 2015 reported that the arrears of assessment rates for the whole SLA had reported a significant increase of 10 percent from RM82.47 million in the year 2014 (NAD 2016b). The 2015 audit report also revealed that some local authorities failed to update the valuation list promptly which resulting in the issuance of the bill to the property owners who no longer existed. On a related issue of the audit of assessment rates for one city council and one municipal council, it was found that the valuation system that integrated the rating system was not in place to accommodate the increase in the number of holdings and to meet the current needs (NAD 2016a). As a result, this non-integration system might lead to an increase in assessment rates arrears and outdated valuation list.

Given of numerous financial management deficiencies that surrounded the SLA, the NAD is continuously recommending the SLA particularly the city and municipal councils to migrate to an accrual system (NAD 2011b, 2012, 2013b, 2014b, 2015b; NAD 2016b). To prevent the recurrent weaknesses, the NAD has also put up several recommendations such as harmonising the procedures of the asset management, diversifying multiple payment channels for mitigating outstanding of assessment rates, and devising proper planning in the implementation of the development project. More importantly, the SLA were urged to execute development programme encompasses system aspects, financial regulations and accounting policies, technical infrastructure to produce experts in the financial management area and to strengthen the human resource aspect.

2.5 SUMMARY

This chapter offers an understanding of the MLA, generally and the SLA, particularly. There are three branches of the Malaysian governments, and the local authority being the third-tier government has a distinct set of rules and regulations covering its administration and financial management practices. Unlike the Federal and State governments, there is very little development reported in the financial reform aspects of the MLA. Basically, issues related to MLA are surrounded by the accounting and reporting contexts. One of the glaring weaknesses reported is the unavailability of standard accounting practices governing the whole local authorities in which the presentation format differs from one state to another. Regarding the SLA, the structures and characteristics of governance management are different from other states in Malaysia. Many weaknesses regarding the financial management practices tend to be centred on the arguments of accounting system currently adopted by the majority of the SLA. As such, the NAD has strongly urged the SLA to consider migrating from traditional system to a more comprehensive accrual-based.

CHAPTER 3
LITERATURE REVIEW

3.1 INTRODUCTION

Chapter 2 has offered an overview of the development and issues concerning the governmental accounting and reporting in Malaysia as well as the SLA in particularly. As the road to an accrual-based may not always be taken (Hyndman and Connolly 2011), "a common vision shared among all participant actors" such as bureaucrats and interest-group pressures is a prerequisite to succeed the reform (Cohen and Karatzimas 2016, 173). Therefore, to provide context to this study and meet the research objectives, Chapter 3 presents an examination of the past literature that drives the transition towards accrual accounting. Firstly, it deals with prior literature of the public sector accounting development and framework. Secondly, it includes debates on the accounting principles which set the foundation for the study. Thirdly, it discusses the empirical literature on the disclosure studies by highlighting the influential factors and accountability instruments. Lastly, it focusses on the theoretical framework relating to the disclosure practices and factors that contribute to the transition and disclosure of accrual accounting information in the annual financial statements by drawing from the Ouda's prescriptive model and the institutional theory.

3.2 PUBLIC SECTOR ACCOUNTING DEVELOPMENT AND FRAMEWORK

As briefly highlighted in the two previous chapters, there have been impending changes in the public sector financial reporting towards the application of the accrual-based system. Therefore, this section discusses the financial reform, which relates to the NPM and accounting framework in order to understand the accrual accounting movement surrounded the public sector organisations. Hyndman and Liguori (2016, 5), state that "the continuous movement in public sector administration from traditional Public Administration ideas to NPM…is associated with its own accounting, budgeting and performance measurement tools and techniques…presented as mutually exclusive and competing". This section also provides general understanding on the type accounting basis, thus imparts preliminary insight in meeting the three research objectives of the study.

3.2.1 Public Sector Reform and its Spill-Over towards Accounting Change

In the early 1980s, several initiatives aimed at reforming public sector organisations by leaning towards private sector management techniques have been witnessed especially in the developed countries (Hood 1991, 1995). These initiatives triggered from the notion of “best value for money” promote the best practices from the private and business sectors and adopt “quasi-markets within and between public sector organisations” (Ezzamel and Willmott 1993, 111). Termed as a ‘New Public Management (NPM)’ (Hood 1991; Osborne and Gaebler 1992; Hood 1995), these reforms can be traced from the beginning of late 1970s during Thatcher’s premiership in the UK and in the US under Reagan’s presidency. It is then followed suit by the governments of New Zealand and Australia with the intention of modernising and improving public services (Hughes 2003; Gruening 2001). The momentum of NPM, which is caused in the eclipse of the traditional way of public administration, represents the new management approach within public sector organisation (Hughes 2003).

Apparently, the old traditional public administration was regarded as being inefficient due to various weaknesses such as an overemphasis on administering rules and guidelines, dominant used of the rule of law and hegemony of professional in the service delivery system (S. Osborne 2006). Due to this, the traditional model of administration was no longer seen as doable and relevant in managing the public organisation. In response to this, the application of a market logic way of shifting towards NPM paradigm has enticed the eyes of many policymakers and practitioners for remedying the perennial problems that engulf the inefficient government (Siddiquee 2006). As such, the government can be reinvented to wipe out inefficiency from the state of bureaucratic into entrepreneurial government by becoming catalytic, customer focussed, pragmatic, and competitive, among others (D. Osborne 1993). The reinventing of the government, which adopts private sector managerial techniques has since led to the improvements in the public service delivery by emphasising on the efficiency and effectiveness elements (S. Osborne 2006).

There are various ideas that emerged in the debates of public management reforms. NPM as discussed by Hood (1995) is resulted from the two doctrines in such a way that the adoption of commercially best practices should have made the public and private sectors more homogenous, and the reduction of excessive public rules will proliferate managerial discretion. Public sector reform has also been defined in various understandings such as new public management, managerialism and entrepreneurial government, despite the fact that this reform is emphasising on the same phenomenon (Hughes 2003). Despite all these, most NPM reform efforts have shared similar ultimate purposes which are to improve public service delivery. These efforts can be attained by enhancing customers' responsiveness, reducing public spending through best financial management practices, and cultivating the culture of transparency and public accountability (e.g. Hood 1991; Pollitt 2001; Christensen, Lie and Lægreid 2007).

Therefore, the appropriateness of NPM in the context of financial management reform has triggered the adoption of commercially based ideas such as free market, privatisation and contracting-out approach as well as performance management system (Minogue 2000). Due to the superiority of private sector approaches, many studies have associated the reform as a 'New Public Financial Management (NPFM)' through the adoption of the commercially management system (Heeks 1998; Guthrie, Olson and Humprey 1999). The implementation of NPFM is generally grouped under the umbrella of NPM that places great importance on the cost efficiency, value of money, devolution of resource decisions, outputs and outcomes, and the use of accounting-based financial measures (Hood 1995). The development of financial reform by way of embracing private sector management approaches has therefore gained tremendous momentum especially in the developed countries, namely: Australia, New Zealand, Canada, the UK and US (Carlin 2005; Connolly and Hyndman 2006; Christensen, Lie and Lægreid 2007). Nonetheless, there are diverse types and levels of financial reforms experienced by different countries ranging from local to national governments (Guthrie, Olson and Humprey 1999).

The NPFM, being part of the NPM ideologies is sometimes linked with the jargons like accrual output based budgeting and accounting, and fiscal responsibility statements, which have long been established in the private practice (Guthrie, Olson and Humprey 1999). As an illustration, one of the key financial reforms associated with the NPFM was the 'Financial Management Initiatives' reported in the UK central government in 1982 that focussed on the professionalism of government managers

(Broadbent, Dietrich and Laughlin 1996). Similarly, the financial reform programme was also experienced by Australia through the 'Financial Management Improvement Programme' in the 1980s as an initiative to produce more efficient use of resources (Christensen, Lie and Lægreid 2007). In New Zealand, the NPFM reform took place due to the fiscal stress and the efforts to adopt private sector approaches by moving away from the traditional administration (Baker and Rennie 2006).

In this respect, Guthrie, Olson, and Humprey (1999, 210) present five categories of reform under the NPFM umbrella, and one of them is the "changes to financial reporting systems" which deals with the implementation of accrual-based accounting throughout government organisations. Guthrie, Olson, and Humprey (1999) also highlight that the preparation of financial statements that is based on the accrual principle has a connection with the external accounting standards developed by the professional bodies. The financial reporting changes which emphasise on the centrality of accounting techniques (Broadbent and Laughlin 2015) have witnessed a shift towards 'accountingization' as one of the key reforms within the doctrines of public accountability and administration (Hood 1991, 1995). As pointed out by Hood, the notion of 'accountingization' is important in explicitly identifying cost categorization within the areas of undefined, accumulated or pooled costs. Consequently, it creates the pursuit for a new accounting-based financial management technique, which has left a great impact on the accounting system through emulating private practices, thus received great attention by some respectable accounting scholars since the 1990s (e.g. Guthrie 1998; Ryan 1998; Lapsley 1999).

For this reason, the accounting change which deals with the transition towards accrual-based system has been dominant in the developments of governmental accounting reform (Carlin 2005; Christiaens and Peteghem 2007). According to Guthrie, Olson, and Humprey (1999, 211), the reform that would have been seen as dysfunctions in the absence of financial management reforms, in a way that provides "the technical lifeblood of NPM organisational structures". The governmental accounting reform, which is synonymous with the move towards accrual accounting, has been one of the most widely discussed matters and is often the first step of effort taken by the governments under the umbrella of NPFM before moving into other consequent reforms (Guthrie 1998; Christiaens and Peteghem 2007).

Globally, there are various reasons that prompt the remodelling of the government accounting practices. For instance, Ball et al. (1999) identify several deficiencies in government financial systems in the US such as lack of accountability and performance requirements, poor maintenance of asset, and inadequate financial disclosures. Hopwood (1984) reports that governments' changing perceptions towards accounting practices, the role of accounting during the economic downturn, and the emphasis on greater public accountability are the main forces that exert pressures for public sector accounting to change. In short, the doctrines underpinning these changes as discussed above are due to the arguments on the superiority of private sector management styles which demand greater efficiency and public accountability (Hood 1991, 1995).

3.2.2 Overview of Public Sector Accounting and Reporting

Traditionally, accounting is seen "as a neutral technology" and tool for decision making with appropriate information provided to an organisation (Connolly and Hyndman 2006, 274), although the use of accounting data may not be able to directly influence policy decision and outcomes in a specific way (Ellwood and Newberry 2007). In both public and private sectors, accounting is defined as a process of "recording, recognising, measuring and reporting economic events and transactions", despite some unique characteristics applied in the government context due to the institutional, contextual and legal pre-requisites (Budding, Grossi and Tagesson 2014, 1). Apparently, there are dissimilarities found on the understanding of accounting for both sectors due to the characteristics of tax financing and public goods managed by the government (Chan 2003). However, Bandy (2013) argues that much of public sector accounting is now consistent with the commercial practices, resulting from the harmonisation of reporting format and system between the two sectors.

According to Chan (2006, 2), public sector accounting refers "to a government's financial information system and financial disclosure practices…and commonly perceived as bureaucratic functions". Meanwhile, International Monetary Fund (2012, 5) defines public sector accounting as "the concepts, standards, rules, and systems used to generate the financial information used in fiscal reporting". It involves an act of managing purchase orders, invoices, billing statements, notices, receipts, closing documents, bank statements and other documents, that supports a transaction and eventually, affects the public sector's finances (Genito 2013).

IFAC (2013) looks into the general purpose of accounting and reporting from a public sector point of view. The report outlines several key characteristics of the public sector which influence the accounting and reporting practices. Among the uniqueness of the reporting are the existence of non-exchange transactions such as fees and taxes, assets that do not exist in the private sector such as military assets, roads, historic buildings and national parks, and the longevity and nature of public sector programmes. Moreover, the government reporting emphasises on the importance of the approved budget as a legal compliance in utilising the public funds and mechanism for setting the taxation levels.

On the other hand, IPSASB (2014b, 86-87) outlines six components in the presentation of governmental financial statements, which are:

(i) A Statement of Financial Position;

(ii) A Statement of Financial Performance;

(iii) A Statement of Changes in Net Assets/Equity;

(iv) A Cash Flow Statement;

(v) When the entity makes publicly available its approved budget, a comparison of budget and actual amounts, either as a separate additional financial statement or as a budget column in the financial statements; and

(vi) Notes, comprising a summary of significant accounting policies and other explanatory notes.

Based on the above discussions, public sector accounting is aptly described as the process of recording, analysing, classifying, summarising and reporting the financial transactions and other economic events by providing assurance that the government's financial reports are presented in conformity with the accepted sets of rules. In other words, the government's financial reports serve "to provide information about the reporting entity useful to users of general purpose financial reports for accountability purposes and for making resource allocation, political and social decisions" (Bandy 2013, 200).

Furthermore, the components of financial statements slightly differ between the public and private sectors. For instance, profit and loss account known in a private sector entity is commonly referred as income and expenditure account or a statement of financial performance in the public sector format (Bandy 2013). Despite the differences, most parts of the financial disclosures such as cash flow and the net effect on assets and liabilities are much identical, which in turn hold the governments accountable to their respective stakeholders (IFAC 2000).

3.2.3 Spectrum and Type of Public Sector Accounting and Reporting

The governmental reporting system is categorised into four spectra, namely: “cash accounting, modified cash accounting, modified accrual accounting and accrual accounting” (PwC 2013, 8). In some instances, both ends of the spectrum may be joined in the financial reporting and due to the complication of defining the point of the spectrum, in most cases, cash and accrual bases are the main focus of discussion by the standard-setting bodies (IFAC 2000). The spectrum of public sector financial reporting practices is shown in Figure 3.1.

Figure 3.1: Spectrum of Accounting Bases

Cash accounting	Transactions and other events are recognised only when cash is received or paid.
Modified cash accounting	Transactions and other events are recognised on a cash basis during the year. Additionally, unpaid accounts and/or receivables are also taken into account by keeping the book open for a month after the year’s end.
Modified accrual accounting	Transactions and other events are recognised on an accrual basis, but certain classes of assets or liabilities are not recognised. A typical example is the expensing of all non-financial assets at the time of purchase.
Accrual accounting	Transactions and other events are recognised when they occur, meaning they are recorded in the accounting records and recognised in the financial statements of the periods to which they relate.

Source: Author’s own diagram and summary, based on the IFAC (2000) report on the definition of accounting basis.

As depicted in Figure 3.1, the fundamental difference between the spectrums of accounting basis is the timing of recognising financial transactions. Briefly, cash accounting records a transaction when cash is affected. On the other hand, accrual accounting records the outcomes of the transactions upon the exchange of economic value. In between that two bases, there are modified cash and modified accrual accounting. Modified cash accounting deals with the unpaid accounts at year-end, and normally the books are kept open until the end of January of that succeeding year for the settlement of debt. On the contrary, modified accrual accounting only recognises certain types of assets and liabilities despite the recognition of other events and transactions on an accrual treatment. In most cases, the government moves along the spectrum from cash to full accrual accounting.

In addition to the spectrum of accounting bases, Saleh (2002) in her research, discusses another three types of accounting practices in the public sector organisations which are budgetary accounting, commitment accounting and fund accounting. In principle, budgetary accounting refers to the management of operating accounts alongside the budgets for measuring the government's performance (Saleh 2002) and it has been the mainstream of public sector accounting and reporting for some years (IFAC 2008). Budgetary accounting, sometimes termed as a 'governmental cameralistic accounting', does not only deal with cash receipts and disbursements but also providing a tool for budget recording, comparing against spending, and managing budget appropriations and political decision making (Christiaens and Rommel 2008).

Based on a study conducted by Pina, Torres, and Yetano (2009) on the EU local government, budgetary accounting is regarded as the core basis of legal compliance concerning the financial report presentation. In the context of local government's accounting viewpoints, several studies have also reported on the predominant use of the budgetary accounting alongside cash accounting (e.g. Christiaens and Peteghem 2007; Anessi-Pessina, Sicilia and Steccolini 2012). Due to this, budgetary accounting is always associated and often being misinterpreted as cash accounting (Christiaens and Rommel 2008; Ernst & Young 2011).

In the case of the Italian local government's empirical study conducted by Nasi and Steccolini (2008), they argue that the use of budgetary accounting is subject to a few weaknesses as the system, which is based on a single-entry accounting may encourage excessive borrowing due to its difficulty in measuring intergenerational equity. The system is also argued as insufficient and untimely statements, lack of information and usage for decision-making, as well as creating a tendency to hide the budget overruns resulting from the element of attaining budget compliance on spending. Consequently, the use of budgetary accounting may affect the government policies in the medium and long-term as the information provided is unreliable and the non-appearance of favourable internal and external conditions may cause difficulty in managing expenditures effectively.

While commitment accounting is a sub-function of the main accounting system, relating to the budgetary control, the expenses are only recorded upon a commitment to purchase an item and are not recognised during cash or invoice transactions (Saleh 2002). Its strength lies in the capability to supply information on the budget availability given the future spending that runs concurrently with cash accounting (IFAC 2000). Commitment accounting has also been criticised despite the positive aspects it has as accentuated by IFAC (2000). According to Nasi and Steccolini (2008), the weaknesses of commitment accounting relate to the matching concept principles and double-entry book-keeping which are not being emphasised like other types of accounting practices. Unlike the case of accrual accounting, profits and losses on the disposal of fixed assets are also not transacted in the books as revenue and expenses.

The last type of accounting practices as discussed by Saleh (2002) is a fund accounting. Section 1300, Governmental Accounting Standards Board 1998 defines fund accounting as:

> A fiscal and accounting entity with a self-balancing set of accounts recording cash and other financial resources together with all related liabilities and residual equities or balances or changes therein, which are segregated for the purpose of carrying on specific activities or attaining certain objectives in accordance with special regulations, restrictions or limitations.

Therefore, most public sector organisations' financial statements disclose a series of fund entities, either in the form of cash or non-cash resources and with complete double-entry reported in the operating statements and balance sheets (Rauf et al. 2012). In executing government functions, fund accounting recognises the existence of the political, economic and legal differences imposed upon them by the legislators, grantors, and donors (Salleh, Aziz and Bakar 2012). In other words, fund accounting is a separate fund established by the government to carry out multiple operations by the set of rules or other regulatory requirements.

Fund accounting is also useful in providing creditor decision-related information (Ingram 1986; Torres and Pina 2003). In the context of American governmental accounting standards, fund accounting system is used as an approach to record assets in the application of a modified accrual accounting system, such that, the assets held in 'agencies' are not under the government's economic responsibility, neither for sale nor destroy (Christiaens and Rommel 2008). In other words, the government only acts as a fiduciary agent in maintaining those assets for the use of community without holding any proprietary rights.

Although fund accounting posts many benefits for the government financial reports, Ingram (1986) identifies one of its weaknesses for example, an overemphasis on legal compliance over the efficiency evaluation, thus reducing the understandability of the whole results of government's operation. Moreover, the fund accounting is argued as a product of a political process for the politicians' and bureaucrats' self-benefit. As a consequence, it limits the external evaluation and control, as well as creates a high tendency for distortion of performance and misappropriation of resources. This type of accounting practice may also restrict the likelihoods of taxpayers to determine their need for taxes.

3.3 TRANSITION TOWARDS ACCRUAL ACCOUNTING LITERATURE

This section outlines the discussion on the accrual accounting practices which directly relates to the third research objective of the study. The debates whether the government should continue using the traditional cash accounting are also provided in this section. Despite the enduring arguments on accrual accounting application, the system has been proven to be successfully implemented, particularly in the developed countries (Baker and Rennie 2006; Christiaens and Peteghem 2007). Moreover, the demands to move to an accrual-based accounting framework in the public sector organisations have been growing especially in the developed countries (Ernst & Young 2010; PwC 2013) despite the drawbacks experienced by some developing nations (Adhikari and Mellemvik 2011; Adhikari, Kuruppu and Matilal 2013).

3.3.1 Debates on Cash Accounting

Cash-based accounting, particularly the cash basis IPSAS has long been dominating the government-wide financial statements and is expected to remain in place in some transitional economies (Adhikari and Mellemvik 2010). The cash system is still common notably in Asian and African countries (Ernst & Young 2011) despite the fact that it has brought a lot of criticisms and debates (e.g. Young 1995; Ouda 2003; Christiaens and Rommel 2008). By definition, cash accounting is an accounting basis that "recognises transactions and events only when cash (including cash equivalents) is received or paid by the entity" (IPSASB 2014a, 1468). As the name implies, the cash basis discloses information relating to the raising of cash sources including the level of extracted taxes to finance it future outlays, the purposes of cash outflow and cash position at the reporting date controlled by the government entity (IPSASB 2014a).

Although the cash basis system only recognises cash transactions and cash flows within the period to which they relate, entities that adopt this practice may disclose additional information separately, such as receivables, payables, non-cash assets, commitments, contingent liabilities and budget comparisons in the notes to the financial statements (IPSASB 2014a). Exemplary to this statement is the practice of the Malaysian federal government which prepares additional memorandum accounts similar to the notes to the financial statements (IFAC 2000; Saleh 2002).

Historically, cash accounting originated in a feudal agency accounting system whereby the government personnel was charged with certain obligations and subsequently discharge the task with full of accountability by providing sufficient evidence (Funnell, Cooper and Lee 2012). According to Baxter 1980, quoted in Funnell, Cooper, and Lee (2012, 199), the term 'charge and discharge' within the ambit of accounting relates to:

> Both manorial and government accounting…as a system of stewardship of which the steward was charged with the sums for which he was responsible (opening balance, plus receipts), and discharged of his legitimate payments; the end balance showed what he must hand over to his lord or keep in his charge for the next period…the charge-discharge system as incorporating a cash account including a list of receipts and payment.

The arguments on the advantages of cash basis accounting have been discussed in the public sector accounting studies, predominantly in the developing countries environment (e.g. Adhikari and Mellemvik 2011; Adhikari, Kuruppu and Matilal 2013). The fundamental principle of cash basis accounting implies that public money should be spent in a manner as specified and approved in the annual governmental budgets (Rauf et al. 2012). Correspondingly, one of the aspects resulting to the predominance use of this system is due to the long relationship between cash accounting and the budgets and appropriation (IFAC 2000) which is integrated into the functional classification of governments activities into the fund (Funnell, Cooper and Lee 2012).

Also, information provided in cash based is argued to be more easily explained, understood, reliable and comparable due to its simplicity as well as uniformity of cash flows. Moreover, the compilation of information is easy therefore requires fewer trained personnel without any detailed accounting knowledge (IFAC 2000). Cash system also has lower operating costs, budget, fiscal and legal compliance, probity, and regularity by connecting between cash expenditures and appropriations and cash receipts and cash balances, and no required judgements to determine cash flow amounts during the period (SAFA 2006; Funnell, Cooper and Lee 2012).

Most sovereign governments adopt cash accounting as a result of its immense advantages (Ouda 2003). For instance, the cash system allows the national legislatures to closely monitor the annual government's tax revenue collection and appropriation due to its economic, comprehensible and straightforward system. As the system is able to provide an evaluation of the cash position and estimates, all information on receipts and expenditures and payments of the expenditures relating to the procurement of goods and services during the fiscal year are provided through its control mechanism. Ouda (2003) also states that some expenditures, such as emoluments and travelling which are received, expended and utilised during one financial year are similar to the accrual basis treatment, and more importantly, subjective adjustments in producing balance sheets and income statements can be avoided under this system.

Further, Ouda (2003) identifies four reasons that stimulate the governments to adopt cash basis accounting namely: (i) political reasons, (ii) traditional reasons, (iii) resistance to change, and (iv) scarcity. Firstly, the use of cash accounting for political reasons allows the governments to portray positive results of their financial position to retain full mandate from the people. Secondly, resistance to change is another compelling factor that causes the governments' accountants to continue engaging cash accounting as they have been traditionally well-accustomed to prepare the financial reports in a simple manner, which consequently limiting the adjustments and evaluation problems. Thirdly, the reason for retaining cash accounting is attributed to a limited number of qualified accountants serving in the government institutions.

The benefits of cash accounting somehow are outdone by the increasing number of critiques. Western scholars or organisations conduct many studies that oppose the use of cash accounting based on the reality of their experiences (Chan 2006; Adhikari and Mellemvik 2011). In some circumstances, the critiques of cash accounting are resulted from the pressures imposed by the international bodies that provide financial assistance to the developing countries (Adhikari and Mellemvik 2011) which seek for greater "transparency and accountability of the government's programs and activities that they finance" (Chan 2006, 8). The criticisms also resulted from the changes of size and government activities that demand a sophisticated system that consequently facilitates the recording of assets maintenance, as well as computing the variable and fixed costs (Saleh 2002).

Aidoo-Buameh (2014) in his study of Public Sector Financial Management Reforms in Ghana argues that cash accounting system allows creation of gap leading to power abuse that is tantamount to corruption as it keeps no proper record of the public resources usage. In Indonesia, the financial management reform taking place at the provincial and local governments in the post-Suharto era has resulted in the ending of cash accounting practices, coupled with numerous deficiencies which also lead to the existence of corruption since the 1950s (Harun 2012; Harun, An and Kahar 2013).

Another argument on cash accounting lies in its failure to provide full information on the public sector non-cash transactions such as assets and liabilities, and long-term perspectives of public finances in the government financial reports (Khan and Mayes 2009; PwC 2013). Cash accounting also fails to provide the full cost of operations data and the resources consumed for public service delivery (Hoque and Moll 2001). These shortcomings are driven by the main principles of cash accounting which are only concerned with disclosing cash flows, cash outflows and changes in the balances held (IFAC 2000). Furthermore, IFAC (2000) reports that the increasing demand for complex information such as capital assets, accumulated borrowing, and other liabilities has prompted the government entities to either maintain supplementary records or in the worst circumstances, move to a different basis of accounting.

The inability of cash accounting to address more meaningful information contained in the financial statements prepared by the government entities is also attributed to several reasons. Christiaens et al. (2015) state that cash accounting does not permit any comparability between different organisations and support decision-making processes for managing and planning the public resources. Cash-based information has also been described as misleading and dangerous by the accounting profession (Potter 2005). The unavailability of data on assets and liabilities has made the government to be held accountable for the excessive consumption of resources because cash accounting only emphasises on the cash flows through reporting of receipts and payments within the current reporting period (IFAC 2000).

In another argument, Funnell, Cooper, and Lee (2012) state that insufficient disclosure on the scale of assets and liabilities held by the government entities has resulted in the misallocation of resources and misrepresentation of the full cost of programs from year to year. These shortcomings have posed extra financial burden not only to the current taxpayers by charging the purchase of assets throughout one financial year, but also to the superannuation contribution by the future taxpayers through liabilities deferment.

To sum up, Ouda (2003) summarises several important shortcomings of cash-based government accounting system that lead to a poor quality financial information and serious distortion in the decision-making process. Among the notable deficiencies are cost ineffectiveness as there is no disclosure on the availability of short-term and long-term liabilities, total assets, and the total value of stocks. Additionally, there is no information on the availability of earned revenue and cost of producing the services between the transactions that relate to either previous years or current year as the transactions are treated in the same manner as the current operating revenue and cost. Ouda (2003) also argues that the cash system is not useful for the performance measurement and comparison purposes, has the potential for deliberate manipulation, and possesses lack of control purposes.

In debating the weaknesses of cash accounting, there is a modification to the system known as modified cash accounting to suit the reporting needs of public sector organisation. As underpinned in the cash system, the modified cash basis implies that the transactions of revenues and expenses are recognised when cash inflows and outflows occur. According to IFAC (1996), the exception would be that the modified cash basis keeps the account open after year end for a specific period of the succeeding year for the settlement of payables. Sometimes, those amounts are treated as liabilities, while in other instances, they are recorded as disbursements in the current financial year although the payments are only made in the succeeding specific period. The rationale for keeping the book open for (e.g., around one month) is for the recognition of amounts received and paid during the specific period to resolve the perceived timing difficulties arising from year-end transactions (IFAC 2000).

IFAC (2000) also states that modified cash basis recognises the amount received during the specific period which relates to the income that is supposed to be received previously, thus it is treated as receipts in that previous reporting period. The benefits of this modification system are the recognition of amounts appropriated, notwithstanding the timing of payment and the acknowledgements of certain receipts and payments which give allowance for the disclosure of information on receivables and payables during the specific period.

Based on the above arguments, either cash accounting or the modification to the cash basis still poses a lot of shortcomings despite the favouring benefits. Although cash basis is desirable to continue as a complementary form, its benefits have gradually diminished with the emergence of accrual accounting and budgeting (Funnell, Cooper and Lee 2012). Due to the apparent limitations of cash accounting, commercial accounting which is often coined as ‘accrual accounting’ has now become a phenomenon in the public sector organisation (Olson, Humphrey and Guthrie 2007).

3.3.2 Characteristics and Benefits of Accrual Accounting

By definition, accrual accounting is a “basis of accounting under which transactions and other events are recognised…when they occur (and not only when cash or its equivalent is received or paid), and the transactions and events are recorded…and recognised in the financial statements of the periods to which they relate” (IPSASB 2014b, 26). Correspondingly, Khan and Mayes (2009, 4) define accrual system as “an accounting methodology under which transactions are recognised as the underlying economic events occur, regardless of the timing of the related cash receipts and payments”.

Another characteristic underpinning the accrual accounting concept is where revenues and expenses are recorded in the books as they are earned and incurred (Falkman and Tagesson 2008). Apart from the revenues and expenses, the accrual basis also recognises assets, liabilities, and net assets/equity as well as disclosing complete information on cash flows which form an integral part of accrual financial statements (IFAC 2000). In the UK, the accrual accounting has been termed in a much wider context as it is commonly known as ‘Resource Accounting and Budgeting’ (Likierman 2003; Laughlin 2012). Laughlin (2012) further states that the understanding of accrual accounting has reached beyond simple recording of debit and credit to a classification of income, expenses, assets, and liabilities and has provided extra disclosure that is filled with definitional issues, judgement and uncertainty.

Based on the discussed definitions and characteristics, accrual accounting has resulted in the recognition criteria of all assets, liabilities, revenues, and expenses as the underlying economic events occur which consequently reported in the financial statements of an organisation. The benefits underlying the accrual accounting implementation have been discussed in numerous studies either in the context of developed countries or emerging economies (e.g. IFAC 1994; Ball et al. 1999; Ernst & Young 2010; IFAC 2011; PwC 2013). As arguments to support the transition from cash to accrual accounting, IFAC presents the fact that accrual accounting can provide full disclosures with high quality, robust and effective financial reporting system. Accrual system is used to achieve "greater transparency and accountability in public sector finances, and better monitoring of government debt and liabilities for their true economic implications (2014, 2-3).

A similar argument has been discussed by Ball and Pflugrath (2012). They state that the comprehensiveness of accrual financial reports, coupled with good accounting practices and full information of accruing obligations and contingent liabilities, have allowed a sound decision making in the consumption of scarce resources, as witnessed in the case of the New Zealand government. Ball and Pflugrath (2012) further argue that the information provided by a robust financial reporting has facilitated the country to restrain financial meltdown posed by the sovereign debt crisis and economic recession and assisted in the decision-making during the fiscal stress over the last two decades.

Given the supremacy of accrual accounting, the full disclosure of all nature of assets and liabilities is vital for assessing the financial consequences of economic, political, and social decisions and mitigate the global economic uncertainties, that in turn, alleviates the failure of government's fiscal management (IFAC 2014). For instance, the sovereign debt crisis, started off the late 2000s in the Portugal, Italy, Ireland, Greece and Spain were reportedly stemmed from the rising of long-term public debt, and notably owing to the weaknesses inherent from cash based accounting practices (MIA 2013a).

The full disclosure of assets and liabilities, which include contingent, quasi-debt and employee liabilities that support the accrual basis reporting are pertinent to the fiscal policy and sustainability, and facilitate the government's fiscal position in response to the global financial crisis (Khan and Mayes 2009; International Monetary Fund 2012). In supporting the arguments, International Monetary Fund (2012) discovers that fiscal transparency is strongly correlated with the government debt and acts as an important predictor for fiscal credibility, performance and economic decision-making tools.

IFAC (2011) outlines several advantages of accrual accounting in their study. Among the strengths are to facilitate better asset management regarding maintenance, replacement, disposal, and risk assessment. Additionally, an accrual accounting allows the government entities to decide on the level of assets, debts, and all recognised liabilities for the execution of current or future program and services. Moreover, the accrual system provides accurate information on revenue, which enables the government to assess the impact of taxation and other revenue streams that in turn assists in providing information for financing the activities and operating costs.

On the other hand, the supports for the accrual accounting are typically grounded on the debates of its both theoretical and practical benefits. Looking into the case of the UK government in 2002, Wynne (2007) segregates the advantages of accrual accounting not only for the Parliament but also for the central government and further cascaded down into various departments. In the study, it is reported that accrual accounting generates better information on the use of resources resulting in the better scrutiny of public spending by the constituents, thus enhanced governmental accountability to the Parliament. In terms of the benefits given to the central government, data derived from accrual reporting has facilitated the decision for public expenditure planning, thus accelerating the efforts in modernising the government agenda. The accrual system has also contributed to the excellence of service delivery by providing better information on the management of receivables, payables, working capital and fixed assets.

Additionally, through accrual accounting, “the impact of past decisions on current financial position and the impact of current decisions on the future financial position” are able to be measured upon detailed recognition of assets and liabilities (IFAC 2000). To sum up, the advantages of accrual accounting are summarised in Appendix 3.1 based on the selected accrual accounting literatures (e.g. Guthrie 1998; IFAC 2000; Likierman 2000; Athukorala and Reid 2003; Hoek 2005; Anessi-Pessina and Steccolini 2007; Ellwood and Newberry 2007; FEE 2007; Wynne 2007; IFAC 2011; Funnell, Cooper and Lee 2012).

3.3.3 Critiques of Accrual Accounting

Accrual accounting, underscores multitude of advantages over other types of accounting basis does not spare with controversies and highlights prospective difficulties as the systems seem to be unmatched with the fundamental purpose of government accounting, particularly to protect public money and its nature of assets (Pallot 1992; Ellwood and Newberry 2007). The implementation difficulties surrounding the accrual accounting is not only confined to the developing countries (Adhikari and Mellemvik 2011) but is also engulfing other developed nations, in the forms of conceptual issues, complexity and practical benefits (Arnaboldi and Lapsley 2009; Hyndman and Connolly 2011).

In the case of the 32 local authorities in Scotland, Arnaboldi and Lapsley (2009) reveal that the benefits of accrual accounting have been overshadowed by the accountability issues and continued resistance on a new approach to capital accounting. Arnaboldi and Lapsley also highlight the likely failure of top-down policy, in which the capital accounting information has not been fully utilised for the management purposes, but only acting as a symbolic compliance. Besides, the complexity of annual reports has resulted in the lack of interest from the local authorities’ constituents other than serving the auditing request.

The appropriateness of accrual accounting to the public sector practices on the impacts of accrual accounting implementation in the UK and its spill-over effect to the Republic of Ireland central government is also debated by Hyndman and Connolly (2011). There are a few issues found in their study such as lack of knowledge on the accrual-based information by the non-accountants and board members as well as cost-benefit arguments stemmed from the increase in the number of professionally qualified accountants. In sharing the UK central government experiences, Hyndman and Connolly (2011) conclude that the non-mandatory requirements, as reported in the case of Republic of Ireland would unlikely function to a comprehensive accrual system in years to come, only if executed modestly during year-end accrual adjustments. Hyndman and Connolly's argument is consistent with that of the findings of their previous study (Connolly and Hyndman 2006) in which they find that accrual accounting system is perceived to be complex, time-consuming, expensive and difficult to be understood by the senior accountants in the Northern Ireland government departments.

In the context of the Belgian and Flemish, Christiaens and Rommel (2008) discover many complications arise from the adoption process of accrual accounting such as difficulty in budgeting certain expenses items. The concepts of balance sheet and profit and loss accounts as underpinning the accrual accounting system are also found to be inappropriate due to the non-involvement of the government sectors in the profit and business orientation activities. These complications are unlikely to happen in the case of commercial entitieswhich revenues (outputs) can be directly measured from costs consumed (inputs). Additionally, "the notions of profitability, financial position, or return on assets" do not pose any political mileage in the decision-making process (Christiaens and Rommel 2008, 72).

In Brazil, Mangualde (2013) studies the perceptions of the local government towards public sector accounting reform. The findings of the study reveal that most of the respondents have cited difficulty in managing the intangible, infrastructure and heritage assets, particularly on the registration and valuation aspects, despite the acknowledgement on the accrual accounting's capability in providing better disclosure of public assets. While, Pallot (1992) criticises the fundamental nature of assets in the public sector organisation which apparently differs from private entities. Although the public assets serve various benefits like the community utilisation, it fails to address cash flow generation as espoused by the private entities. In another argument, Pallot (1990) states on the applicability of depreciation concepts for infrastructure assets which also termed as community assets. These assets are argued to be not readily determinable regarding economic life due to the frequent repair and maintenance.

In response to Pallot (1990), Bandy (2013, 209) affirms that depreciation issues can be resolved by treating "the cost of maintenance in the statement of financial performance (i.e., the operating income and expenditure account)" instead of deploying depreciation approach. Another study conducted by Pallot (1997) on the infrastructure assets of local authorities reveals that the recognition of social benefits into the valuation of infrastructure assets conflicts with the basic principle of conventional asset accounting. Meanwhile, Lapsley, Mussari, and Paulsson (2009) and Ouda (2014a) debate on the inconsistency of accounting approaches relating to the heritage assets. Both studies reveal that the capitalisation of heritage assets may cause inflation of net worth to the countries and distortion of the performance statements as over the period, their unique values are likely to proliferate.

On the other hand, Blöndal (2003), Lapsley, Mussari, and Paulsson (2009) and Ouda (2014a) discuss the challenges to account for public assets. In his study, Blöndal (2003) identifies a few recognition issues of applying accrual concepts to certain types of assets and liabilities. Military assets are another peculiar characteristics of public sector organisation which have caused difficulty in providing capitalisation and depreciation. A further complication identified by Blöndal (2003) is whether destruction-prone items such as military-specific assets should be treated as ordinary expenses or capital expenditure as being practised by the advanced countries.

Additionally, the arguments such as incomplete developments from the provision of information quality (Christensen 2007), non-fulfilment on the adoption of professionally accounting standard (Barton 2005) and non-deliberateness of implementation issues may result in accrual attempt failure as in case of the Nepalese central government (Adhikari and Mellemvik 2011). Although the debates on the applicability of reporting government entity which rooted from private-oriented approach may be mushrooming, there are very few empirical grounds reported against its adoption (Grossi and Steccolini 2015; Boyne 2002).

As discussed above, the accrual accounting implementation is often criticised by some drawbacks and challenges relating to the theoretical and implementation factors such as accounting treatment issues, cost-benefit arguments, technical incapability and human resource management. However, the success of accrual accounting implementation has raised several issues that require careful planning in order to ensure a smooth transition process.

3.3.4 Requirements for Transition Towards Accrual Accounting

Many studies have debated the process of accounting reforms which is contingent upon various critical success factors. Due to the public sector complexity, the transition towards accrual accounting will not be simply achieved by implementing a similar approach as experienced by the private entities. In both cases, the accounting and reporting practices between the two sectors are fundamentally different in terms of the objectives sets between the two sectors (e.g. Guthrie 1998; Carlin 2005) as the implementation of accrual accounting in the public sector organisation is beyond the accrual scope per se (Ellwood and Newberry 2007). Therefore, the requirements for success are due from numerous underlying factors ranging from cultural aspects to providing qualified accountants (Hepworth 2003; Ouda 2004, 2010; Wynne 2007; Khan and Mayes 2009; IFAC 2011; Lande and Rocher 2011).

Ouda (2004) in his Basic Requirement Model through a thorough examination of the experiences of the UK, New Zealand, and Australia derives several requirements that should be coordinated simultaneously by the government in ensuring an efficient, effective and economical way for the successful implementation of accrual accounting. Among others, he suggests that proper planning in the form of parallel change at the departmental level, provision of adoption costs, and the ability to tackle accounting issues like asset valuation and identification of opening account balances could deliver a smooth transition to the successful implementation. The role of international financial bodies is also argued to be an important factor to support the process of migrating to an accrual-based system.

In improvising the earlier Basic Requirement Model, Ouda (2010) proposes a Prescriptive Model which is suitable for the transition to accrual accounting in the context of central government. On the condition to successfully facilitate the accrual accounting transition, Ouda (2010, 63) segregates the process into three phases, namely: (i) reform decision-making phase; (ii) transition phase; and (iii) post-transition phase. The model has been further improved by incorporating a few extra requirements such as integrating accounting and budgeting in the reform process, establishing an advisory group, testing the workability of the new system, and developing new/ improved financial reporting system. The details of the Prescriptive Model are explained in the subsequent section of this chapter.

A study by Khan and Mayes (2009) recommend numerous requirements that have to be recognised for the smooth transition in consideration of the technical and conceptual difficulties underpinning the accrual accounting system. Firstly, a reliable cash-based data should be established before considering the move to adopt accrual reporting. Secondly, with the political and bureaucracy supports, an organisation should ensure that sound technical and system capacity are put in place. Thirdly, a selection of appropriate accounting policies that is consistent with either national or international accounting standards should be emphasised upon contemplation on a shift to accrual accounting system. Fourthly, attention should be given to the alignments of accrual accounting and budgeting as well as budget classification and chart of accounts. Lastly, the incorporation of assets and liabilities in the opening balance sheet should be pre-arranged as it may pose time-consuming task.

As identified by the European Federation of Accountants, Wynne (2007) highlights a few essential requirements for transitioning success within a broader set of the reform process. Apart from sound technical and system capacity, an organisation should obtain an unwavering support from the controlling bodies such government auditors and accountancy professions through the development of accounting standards and comprehensive audit process. Also, the lengthy-reforms period has to be driven with culturally accepted mindset followed by proper consultation and awareness, support across the political spectrum, the use of incentives and penalties and adequate management training. Wynne (2007) concludes that putting efforts through the requirements above would be of no avail if corruptions are still rampant within the organisation.

Consistent with Wynne (2007) and Khan and Mayes (2009), Lande and Rocher (2011) identify several capacity elements to overcome technical and conceptual difficulties as well as favourable cultural, material and organisational environment to ensure the success of the accrual accounting implementation. In this regard, the reorganisation of philosophy and culture in the public sector is essential as sufficient training and engagement of the strategic and political actors are needed to redefine the organisational framework. Since the adoption of accrual accounting is a demanding process and requires a commitment to change, adequate expertise and complete application of accrual accounting standards can facilitate the technical and conceptual issues encountered by the organisation. Lande and Rocher (2011) also highlight some issues regarding the recognition of tangible and intangible fixed assets, taxes, and the obligations of the state which should receive utmost attention during the transition exercise.

A report by IFAC (2011) outlines several requirements that affect the promptness of accrual accounting implementation. Unlike the positive experiences of many developed countries, the introduction of private-style accounting tools in the transitional economies is more likely to encounter various resource restrictions. As a result, a step-by-step implementation and the use of pilot entities are strongly recommended due to the great variation of the transition path. Equally important, the "gradual symmetrical approach" as termed by Chan (2006, 6) which ranges from mild to moderate to strong should also be executed on a sector-by-sector basis by considering a different type and size of entities.

Given the step-by-step implementation, IFAC (2011) states the priority to recognise the short-term assets and liabilities such as receivables and public debts before moving into the property, plant and equipment, and other long-term obligations. The government entities should also consider meeting possible audit options, in such that producing audited financial statements with some audit qualifications. Notably, the success in the transition of accrual accounting in the emerging economies is unlikely to be smoother and faster without undivided support from the appropriate level of governments, political commitment, and legislation as well as adequate resources, effective planning, and management structure (IFAC 2011).

By and large, Hepworth (2003, 42-43) enumerates twelve requirements which form integral parts for the success of accrual accounting implementation in the government, namely: (i) consultation and acceptance; (ii) participation in the accountancy profession; (iii) adoption/development of accounting standards; (iv) full support from government auditors; (v) comprehensive training programme; (vi) internalisation of cultural approach; (vii) robust annual independence audit; (viii) corruption-free; (ix) realistic time frame; (x) sufficient IT capacity and strategy; (xi) application of financial incentives and penalties; and (xii) incorporation of accrual accounting as part of reform package.

Interestingly, Pitulice (2013) argues that the twelve requirements as outlined by Hepworth (2003), may not occur in most cases as all those factors need to be considered to deter distortions in the transition process as experienced by the Romanian public sector. Nevertheless, by considering all the requirements above, the transition to accrual accounting can take place, either in the form of migrating the whole budgeting and accounting to accrual basis or only concentrating on accrual reporting and shifting the account records to an accrual basis (Ouda 2010).

3.4 REVIEW OF THE DISCLOSURE LITERATURE

This section discusses prior disclosure studies that examine the disclosure level in the financial reporting of public sector organisation in both developed and developing countries. The discussions also encompass a review of relevant past literature of non-government sector in order to provide a theoretical background to the study. The issues discussed in this section cover: (i) accrual accounting disclosure in discharging accountability, and (ii) empirical studies on the financial reporting disclosure. The first subsection imparts basic understanding on the role of accountability through accrual accounting disclosure which relates to the first and third research objectives of the study. On the other hand, the discussion on factors influencing the financial reporting disclosure in the following subsection is designed to form a foundation for addressing the second research objective.

3.4.1 Accrual Accounting Disclosure in Discharging Accountability

Financial reporting, being one of the most popular areas of research in public sector reporting literature is among the contentious aspects of reporting to be studied, particularly measuring the disclosure choices and examining its association with specific characteristics such as the form of government organisation. In relation to the financial reporting disclosure, which consists of information related to the accrual accounting, it is continued to be widely researched, especially in the context of local government as a vehicle to discharge accountability. The concept of accountability in the public sector is very broad and regarded as more indefinite, obscure, fragmented, complex and heterogeneous which serves a diverse group of stakeholders (Ryan, Dunstan and Brown 2002). By definition, accountability in the public sector is a two-way relationship involving the government and general public in which the public has the right to be informed and kept abreast with the management of public resources handled by the government (Carlin and Guthrie 2001).

In this regard, annual financial statements are prepared with the generally accepted accounting standards to allow for a greater discharging of accountability (Ball 2005) and concurrently, the use of a better basis of accounting in the government entities through accrual accounting adoption could lead to an effective and efficient operation (Connolly and Hyndman 2006). Financial report, a subset of the annual report (Cárcaba-García, López-Díaz and Pablos-Rodríguez 2002) compliments financial statements by providing additional information, including information on the organisation's financial position and performance (Higson 2003). It therefore serves as an important instrument for discharging accountability to the general stakeholders as well as providing a useful framework for public sector reporting disclosure (e.g. Coy, Fischer and Gordon 2001; Ryan, Dunstan and Brown 2002; Connolly and Hyndman 2004). Furthermore, the role of the annual report, which includes financial elements of performance and position, is the most comprehensive document entitled for the stakeholders which acts "as the main disclosure vehicle" (Marston and Shrives 1991, 196).

Despite various understandings, the notion of accountability as discussed by Coy, Fischer, and Gordon (2001) is to ensure the financial disclosures incorporated in the annual reports are reliable, understandable, relevant, accessible and comparatively satisfying. Accountability, which is contingent upon a comprehensive disclosure of annual report and encapsulated in single documents, must not only address the objectives and performance of the public institution regarding the financial aspect, but also in the non-financial terms. Coy and Dixon (2004) in their study about crafting a parametric disclosure index move a step further by asserting that an assessment of the quality of public institutions' annual reports from an accountability perspective requires full consideration of the social, political and wider economic concerns.

Connolly and Hyndman (2004) in their study on analysis of the voluntary disclosure of annual reports of Irish and British charities express the importance of accountability mechanism through the annual report, which includes wider information encompassing financial, performance, future target, and budget. The study reports that the deficiency in charities' annual report disclosure is attributed from an unwillingness to disclose many of the items or lacking awareness in meeting the need of users. Additionally, the lack of better governance which is linked to the notion of accountability may likely impede full information disclosure in the annual reports.

A comprehensive information of the financial and non-financial disclosure is also of paramount importance, along with public sector reform process that emphasises on the improvements of public sector accounting and reporting as a consequence of traditional financial reporting system deficiencies (Marcuccio and Steccolini 2009). By taking an empirical case of Italian local authorities, Marcuccio and Steccolini (2005) argue that additional disclosure of information could also help improving financial and service performance, apart from giving an opportunity to secure funding from external parties and assisting the local authorities in the decision-making process.

The above discussions confirm that reporting disclosures mirror the patterns of accountability in the public sector which covers various types of disclosures, including accrual accounting reporting. Basically, accrual accounting disclosures in the annual financial statements are argued to be extremely critical as the demand for greater financial accountability is much sought.

3.4.2 Empirical Studies on the Financial Reporting Disclosure

This subsection discusses the studies that have been conducted as early in the 1970s and 1980s to determine factors influencing the financial reporting disclosure practices, particularly in the context of public sector organisation (e.g. Zimmerman 1977; Robbins and Austin 1986; Ingram and DeJong 1987). Unlike some studies conducted before the 1990s, which tend to focus on the US local government, the reporting disclosure studies in the 1990s and beginning of the 21st century appeared to expand to other public sector setting, such as higher tertiary institutions, apart from the state and local governments. A review of another form of reporting disclosure such as accountability reporting is also incorporated in the discussion for the development of research hypothesis and study structure.

One of the earlier studies investigated the association between selected characteristics and the extent of disclosure was conducted by Zimmerman (1977) on the US municipalities. In his study exploring the financial disclosure, Zimmerman concludes that cities run by manager/council form reported more information in the financial statements than cities with mayoral governments. The study postulates that lesser financial disclosure (i.e., full accrual fund statements) exists in the cities with the mayoral government due to the little incentive to hire a well-known audit firm for monitoring the mayors which are not the councils' agent.

Another earlier study discussing the impact of the form of government (mayor vs. manager) on the reporting disclosure in governmental financial reports was done by Robbins and Austin (1986). The study used a simple and compound disclosure indexes in analysing the disclosure of 27 selected information items such as segregation of current assets and liabilities, inter-fund receivables and payables, and total debts outstanding. Consistent with Zimmerman (1977), Robert and Austin found that cities with council/manager form of governments and the role of Big Eight accounting firms act as important determinants disclosure in the governmental financial reports. The study also discovered that long-term debt per capita and intergovernmental revenue through reliance on the Federal government funding remain significant variables with both measures the disclosure quality. A similar empirical finding was also found by Evans III and Patton (1983) in providing insights into the voluntary financial reporting patterns of municipal officials for the form of government, that elected political managers (mayors) do not have greater incentives than the appointed one.

Ingram and DeJong (1987) in their study of 544 local government's financial reporting disclosures in the US argued that there are little differences in the disclosure practices of the cities that are required by the states to comply with GAAP and the cities that practice non-GAAP requirements and State disclosure requirements. Ingram and DeJong also argued that the State disclosure practices and regulations do not significantly influence the local government disclosures. In the late 1980s, Giroux (1989) conducted an empirical study on the municipal political interest and its influences on the financial disclosure quality. The study developed disclosure indexes based on (i) pension and employee benefits disclosures in the annual report, (ii) operating budget format and disclosures, and (iii) statistical section disclosures. By analysing the 97 cities' fiscal year 1983 annual financial report, and operating budget in the US, Giroux argued that political power poses weak influence on disclosure quality which is possibly due to low political competition and high bureaucratic power.

Dixon, Coy, and Tower (1991) attempt to analyse the annual report of all the higher learning institutions in New Zealand for five years. The study, which advocates greater accountability, emphasises on clear contents of financial information in addition to the corporate reports through analysing nine categories incorporated in the annual financial accounts, such as Statement of Financial Position and Statement of Accounting Policies. The study argues that timeliness factor acts as an important variable that affects the comprehensiveness of the reporting disclosure in the universities' annual report. Also, resource constraints is found to be one of the factors that causes failure in complying with the imposed legislation and professional accounting requirements by the financial controller.

Another study on the municipal governments was conducted by Copley (1991) in analysing the relationship between local governments' financial disclosures and audit quality. Consistent with Robbins and Austin (1986), a city-manager form of government, high debt, and the population is found to determine the financial statements' disclosures level. However, the presence of a State regulation imposed on GAAP's compliance does not have any impacts on the local government disclosures. Copley also finds that the existence of Big Eight[24] accounting firms has two different results with the disclosure level. Nevertheless, the presence of Big Eight accounting firms does not necessarily reflect in the quality disclosures, although low audit fees may contribute to inadequate financial reporting presentation.

[24] The Big Eight accounting firms refer to the eight largest international firms, among others, providing audit, taxation, and management consulting. This group was reduced to the Big Six and now become the Big Four after series of mergers.

Cheng (1992) empirically examines the accounting disclosure choice in the US using the Ingram's (1984) 12-practices index. To test her model, she deploys Linear Structural Relations (LISREL) methodology based on the 1986 financial reports of 50 states in the US. The study finds that the choice of accounting disclosure is impliedly dependent upon the institutional forces and political environments which can be constructed from eleven theoretical variables. Based on the LISREL test, only seven theoretical constructs are identified by Cheng (1992, 32) that may influence the state government's disclosure choice. The theoretical constructs are: (i) socioeconomic development and diversity, (ii) interest-group strength, (iii) political competition, (iv) governor strength, (v) debt-market influences, (vi) press strength, and (vii) characteristics of the bureaucracy.

Allen and Sanders (1994) in their study in the US local governments from 1985 to 1990, indicate that professional education of the municipal finance officers positively influences the extent of disclosure in municipals financial reports. The study also finds that size of municipalities, i.e., smaller cities may result in the less-informative of the annual financial report. Christiaens (1999) empirically examines the compliance level arising from the accounting reform in Flemish Municipalities using annual reports and survey data. The study discovers that factors such as municipal size, municipal experience, and technical support from professional accounting consultants significantly influence the compliance index.

In Queensland local governments, Ryan, Stanley, and Nelson (2002) conduct a study using a Local Government Accountability Index and they reveal that disclosures quality in the annual reports for the period of 1997-1999 is still low due to the absence of non-financial elements. The study reports that the size of local government is correlated with disclosures quality. However, the findings of the study are found to contradict with Dixon, Coy, and Tower (1991) in such that no statistical association is proven between timeliness factor and the quality of disclosures. Additionally, the support of the accounting systems through compliance with the National Competition Policy guidelines produce the same result as the timeliness of the reports.

A later study on the Queensland local governments was conducted by Stanley, Jennings, and Mack (2008). They investigate the contents and forms of the community financial reports using a disclosure index analysis. The study finds huge differences in the report disclosures between urban and rural local governments, due to the insufficient reporting guidelines that can assist in the production of the community financial reports by the local government authorities.

Meanwhile, Gore (2004) conducts a study on a local government by comparing the disclosure levels between Michigan with Pennsylvania municipal governments, in which is not mandated by the GAAP requirements. The study reports that unregulated disclosure state is more motivated to disclose financial information due to bond market-induced incentives. Correspondingly, the regulated state tends to produce a high level of GAAP disclosure as compared to the unregulated state. It is interesting to note that Gore's study findings seem to disagree with a prior study conducted by Ingram and DeJong (1987) on the US local governments.

In New Zealand, Tooley and Guthrie (2007) empirically examine the informational values of disclosures in the annual reports of 17 secondary schools for three different financial years. By deploying the 'School Performance Accountability Disclosure Index' methodology, the study reveals that informational values of disclosures in the annual reports demonstrate limited performance information. The information deficiencies consist of: (i) lack of knowledge on public accountability disclosure items among annual report preparers, (ii) wrong perceptions on benefits derived from disclosing certain types of information, and (iii) lack of interest in the usability of an annual report by the stakeholders and community.

In the context of Latin-American countries, Caba-Pérez and Hernández (2007) examine the cross-national comparisons on the financial reports arising from the use of a system called Integrated Financial Management System for Latin America and the Caribbean (SIMAFAL) and the adoption of IPSAS. The study concludes that the financial disclosure levels for the countries that have been successfully implemented SIMAFAL model are relatively better than those countries that have yet to implement the financial reform. In terms of the IPSAS compliance, the study reveals that the overall disclosures of financial information are still below the desired level.

Martani and Liestiani (2012) conduct a financial disclosure study with selected local governments that represent each province in Indonesia. The findings show that the level of disclosures in the financial statements is affected by certain factors, such as (i) wealth, (ii) level of dependency on central government, and (iii) complexity of government. Nevertheless, the types of local government such as city and district do not pose any influence on the level of disclosure. In contrast, Susbiyani et al. (2014) who examine the compliance level of mandatory financial disclosures for 104 local governments in Indonesia, find that dependency on the central government does not pose any significant influence. Consistent with Martani and Liestiani (2012), Susbiyani et al. also find that wealth, size, and type of local governments are directly associated with the compliance on mandatory disclosure of financial statements.

From the discussion of the prior literature, it is found that the determinants that have successfully contributed to a better financial disclosure may not be necessarily applicable in the context of the emerging economies, as well as from one country to another, which create an identified researchable gaps. As argued by Adhikari and Mellemvik (2010), the determinants that have been applied in the developed countries are found to be irrelevant for some developing countries due to the different effects of the institutional pressure. It is also found that the study findings on the influence of the disclosure level are reported to be inconclusive and contradictory (e.g. Ingram and DeJong 1987; Copley 1991; Gore 2004). Therefore, it is essential to determine to what extent the applicability of the determinants that influence the disclosure level in other countries can be generalised in the context of Malaysian public sector in order to fill the lacuna in the field of financial reporting disclosure.

3.5 THEORETICAL PERSPECTIVES FOR THE THESIS

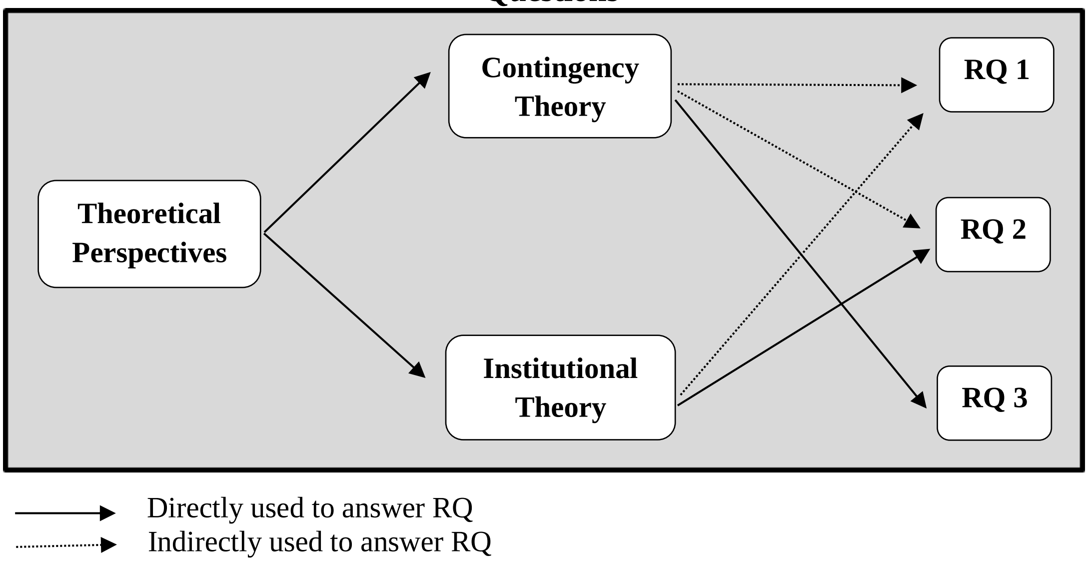
This section provides theoretical perspectives to understand the disclosure practice and requirements that contribute to the implementation and disclosure of accrual accounting information in the annual financial statements. Previous reporting disclosure and accrual accounting literature have suggested that several academic theories may explain the transition towards accrual accounting and disclosure requirements, notably in the developing countries.

In this study, two theoretical perspectives are used, namely: (i) contingency theory, and (ii) institutional theory. Both theories are employed interchangeably as alternatives which complement one another in providing a more comprehensive understanding of the extent of accrual accounting information in the annual financial statements and all relevant conditions that influence the disclosure practices of the SLA. Prior studies have substantiated that the use of a single theory may not be able to produce a thorough discussion on a particular body of knowledge which leads to a combination of contingency and institutional theories for addressing the research objectives (e.g. Humphrey and Scapens 1996; Lande 2006; Qian, Burritt and Monroe 2011).

In view of this, the co-existence of two theories is expected to produce a comprehensive result in examining the extent of accrual accounting information and disclosure requirements for the transition towards accrual accounting in the SLA. Donaldson (2001) argues that the contingency factors are not characterised within the entity but far-reaching the external environmental and technical uncertainty. Similarly, there is a strong relationship between the external pressures posed by the institutional theory and internal structures implied by the contingency theory (Gupta, Dirsmith and Fogarty 1994). In other words, the accrual disclosure practices in the SLA is not only influenced by all relevant contingency factors but also affected by the SLA's operating domain. It is also possible that the transition to accrual accounting and disclosure of accrual accounting information in the SLA's annual financial statements can be influenced by the trivariate and multivariate interactions of variables.

Therefore, both theories are indirectly used to explain the extent of disclosure of accrual accounting information with regards to RQ1. The institutional theory is used to offer a strong basis for the hypothesis development in RQ2 and consequently, their association with the disclosure of accrual accounting information. As stated by Lande (2006), the adoption of institutional theory could explain the weight of particular forces (variables) towards the implementation of accrual accounting. On the other hand, contingency theory is deployed to answer RQ3. In reference to the contingency theory developed by Ouda (2010), it is possible to ascertain the requirements and the extent of influences that contribute to the transition and disclosure of accrual accounting information in the SLA's annual financial statements. Figure 3.2 depicts the relationship between the two theoretical perspectives and the three RQs.

Figure 3.2 Relationship between Theoretical Perspectives and Research Questions



3.5.1 Theoretical Perspectives on Public Sector Accounting and Reporting

The use of relevant theoretical approaches in government accounting research which is evolving remains to be a debatable issue. Some studies use more than one theory, and some do not. According to Jacobs (2012) in his study on theoretical pluralism, 37% of public sector accounting research does not use any single theories. It is also interesting to note that the institutional theory, as propagated by Meyer and Rowan (1977) and DiMaggio and Powell (1983) has dominated the field of public sector accounting research (Jacobs 2012). The theory is regarded as a "well-used framework for analysis" by the accounting researchers (Broadbent and Laughlin 2015, 8).

In addition to the institutional theory which falls under radical/alternative research, various theoretical approaches have also been employed such as functionalist research which consists of the agency, contingency, organisational, and accounting theories (Goddard 2010). Numerous accounting reforms studies have used contingency theory and its variants (e.g. Christiaens 1999; Jorge 2003; Saleh 2008), as it is argued to be able to provide a comprehensive theoretical approach to explain the reliable information on the changes in the governmental accounting (Lüder 1992).

In this connection, the variety of theoretical approaches used in governmental accounting studies is attributed to the unavailability of a unifying theory developed by prior researchers (Smith 2004). The diversity of theories has therefore produced difficulties to the accounting researchers in explaining the forms and contents of disclosures in the annual reports (Campbell, Moore and Shrives 2006). Many accounting studies have combined multiples theories such as Qian, Burritt, and Monroe (2011) who use the institutional and contingency theories in providing insights into their study on the environmental management accounting. Lande (2006) also adopts both theories to explain the accrual accounting reform in her study.

In another instance, Falkman and Tagesson (2008) employ positive accounting theory, alternatively with institutional theory in explaining the accounting standards compliance in the Swedish municipalities. The use of multiple theories is strongly supported by Humphrey and Scapens (1996) in their case study of accounting practices. They argue that over-reliance on the use of a single theory in the accounting research may impede its relevance and fail to provide a deeper discussion. Humphrey and Scapens (1996, 88) further elaborate that:

> The reliance placed on a single social theorist in many accounting papers is felt to privilege a particular body of knowledge excessively, especially in the light of contemporary notions of relativism and the emerging view that knowledge claims should be seen as temporal and fluid.

Appendix 3.2 provides illustrative examples of theories applied in the public sector accounting research. The next section provides the theoretical perspectives, contingency theory and institutional theory, in giving a deeper understanding of the reporting disclosures as well as the factors in accelerating the success of accrual accounting implementation.

3.5.2 Contingency Theory

This section presents numerous developments of the contingency theory, critically discussing issues revealed by several authors. As mentioned by Marcuccio and Steccolini (2009, 149), the main principle underpinning the contingency approaches is that the organisation attempts to "focus on the fit between contingent contextual and organisational features, and accountability practices". By drawing from the previous works (e.g. Gordon and Miller 1976; Hayes 1978; Waterhouse and Tiessen 1978; Emmanuel, Otley and Merchant 1990), Marcuccio and Steccolini (2009) again cite that under all circumstances, the unavailability of common financial reporting system applied throughout the organisations has motivated the use of contingency approach in the accounting studies. Based on these arguments, this study adopts contingency theory to examine both internal and external factors that explain the accounting change in the SLA.

3.5.2.1 Developments in the Contingency Model and its Variants

The contingency model presented in this section and adapted for the study is a framework that is developed by Ouda (2010). The framework termed as a 'prescriptive model' is refined due to the shortcomings found from the earlier versions of the contingency model, such as the contingency theory of government accounting innovations initiated by Professor Klaus Lüder in 1992. Historically, Lüder's contingency model is based on a comparative study of the government accounting reform in the developed nations like the US, Canada, and several European countries (Lüder 1992). The basic model is extended into a detailed model consists of four modules, namely: stimuli, societal structural variables, politico-administrative structural variables, and implementation barriers (refer Appendix 3.3).

Many authors have applied the Lüder's contingency model and its revised version as a framework to describe the innovation process of government accounting reform for both developed and developing countries. Among prior studies that applied the model in the context of developing countries are Godfrey, Devlin, and Merrouche (1996) in discussing the government accounting in Kenya, Tanzania, and Uganda, as well as Saleh (2005) who uses the model in explaining the development of government accounting and reporting in Malaysia. Meanwhile, Chan (1994) employs the Lüder's work in examining the impact of accounting and financial management reform in the US government, arising from the introduction of the 'Chief Finance Officers Act' and the 'Federal Accounting Standards Advisory Council'.

The initial version of the Lüder's contingency model has been a subject to several improvements in addressing the government accounting innovations. The Lüder's contingency model, has first been developed in Lüder (1992) and subsequently, the structure has been revamped by himself in Lüder (1994). The model has also undergone further revisions in the later studies, either by altering or adding new variables to fit it in different environments and countries (e.g. Pallot 1996; Jaruga and Nowak 1996; Yamamoto 1999; Christensen 2002). Notwithstanding the substantial modifications or extensions, the initial model has been criticised by several researchers regarding the fundamental concept of government accounting innovations.

In the light of criticisms hurled against the contingency model, Monsen and Nasi (1998) assert on the relevancy of accrual accounting concerning the concept of accounting innovation. They argue that the change from cash to the accrual-based system is inappropriate and difficult to be applied in the main accounting model of governments due to its matching principle issues. In contrast, Chan, Jones, and Lüder (1996) view that the adoption of accrual accounting is considered as part of the qualitative innovation taking place in the government accounting, based on the premise of the recognition of nonfinancial assets and long-term liabilities which tend to be neglected under the cash-basis regime. Indeed, their argument is well-defended in some later studies as the introduction of accrual accounting is deemed as part and parcel of the government accounting innovation (Ouda 2001, 2004, 2010; Caba-Pérez, López-Hernández and Ortiz-Rodríguez 2009).

The Lüder's contingency model is again redeveloped as a result of the disputed limitations such as lacking clarification on how innovations are implemented (Chan, Jones and Lüder 1996; Monsen and Nasi 1998). Lüder (2001) reconstructs the model called 'Financial Management Reform Model' (FMR) by not only combining previous modifications but also adding new features and correcting some empirical problems. The enhancement of the contingency model among others is taking into consideration of the various additional empirical evidence such as combining the impact of the innovation process from general public's expectations (Jaruga and Nowak 1996) and segregation of the different types of governance and management (Yamamoto 1999). In essence, the FMR model consists of: (i) two clusters of contextual variables (stimuli and institutional arrangements), (ii) three clusters of behavioural variables (reform drivers, political reform promoters and stakeholders), and (iii) two clusters of instrumental variables (reform concept and implementation strategy) (Lüder 2001, 18). The relationship of the variables in FMR model is depicted in Appendix 3.4.

In view of this, Jorge (2003) highlights four distinct characteristics of FMR model, also known as 'the fifth generation of contingency model' as compared to the previous versions (e.g. Lüder 1992, 1994). Jorge (2003, 193-199) further states the differences which include:

> Major revision to the model structure by adding new instrument variables, specification to the actors in the reform process, rearrangements to the cluster components and their linkages, and improvements to the lines of influences, impacts and feedback loop as found in the previous versions.

Apart from the FMR model, Godfrey, Devlin, and Merrouche (2001) introduce a 'Diffusion-Contingency Model' in their government accounting innovations study by combining contingency model elements with other theories of diffusion of innovations, leading to a new hybrid model. The model assume government accounting innovations as "an iterative process whereby the interaction of political, administrative and social actors is conditioned and filtered by the organisational structural variables of the government (as an organisation), which in turn affect the government's organisational innovativeness" (Godfrey, Devlin and Merrouche 2001, 208). The model application, which is tested into government accounting innovations in Albania, attempted to combine many variables, such as internal and external characteristics of the public sector institution and the individuals' roles aspects within the diffusion process.

In response to a case study of the New South Wales government's early adoption of accrual-based reporting, Christensen (2002) proposes a variation on the application of the Lüder's contingency model. Christensen identifies a few issues ignored in the previous models, namely: public influence, individual involvement in the innovation process, and overemphasis on the likelihood of change. Three group of actors are incorporated in the revision model, which are: promoters of change, users of information, and producers of information in reacting to the stimuli factors and implementation barriers. It is discovered that stimuli factors, users of information as well as promoters of change through the contribution from the Big Six accounting firms and management consulting firm are the important elements during the implementation of accrual-based financial reporting. Unfavourably, producers of information and barriers to implementation emerged to be less important.

In another development, Ouda (2001, 2004) initiates a 'Basic Requirement Model' (BRM) that prescribes eleven basic requirements for those countries that intend to implement a public accrual accounting system. In the BRM, the government's decision for the accounting change should take place as the 'starting point' instead of the stimuli factors as contained in the Lüder's framework. In comparison to the Lüder's priority on the explanation agenda (Lüder 1992), the BMR emphasises on the implementation framework which enables the government, particularly in the developing countries for creating conditions that could put accrual accounting implementation into practice. Nevertheless, the BRM upholds the Lüder's contingency model that at least one stimulus factor should exist for the accounting change. In this connection, Ouda (2004) outlines eleven basic requirements which also include international financial support for the case of the developing countries. All these factors should be coordinated simultaneously as illustrated in Appendix 3.5.

The Lüder's contingency model is further enhanced in the later studies. For instance, Caba-Pérez, López-Hernández, and Ortiz-Rodríguez (2009) adapt the model in examining public sector accounting reform in Argentina, Chile, and Paraguay. In their study, they construct the model into four interrelated sections, namely: contextual, interveners, procedures, and product. The study concludes that the generation of innovation can occur due to economic crisis factors and in the situations that both reforms in the governmental accounting and political system do not have any correlation with each other. The study also suggests a creation of a specific unit to inculcate positive attitudes among account preparers towards the reform and to gain support from the professional accounting bodies during the reform process.

3.5.2.2 Prescriptive Model of the Transition to Accrual Accounting

As discussed in the previous chapter, the Malaysian government is recently engaged in the process of transitioning from cash-based to accrual accounting system. Similarly, the move towards accrual accounting has also been incorporated as one of the key strategic issues in the Sarawak Civil Service 10-20 Action Plan under the part of the State government wider reform. In this regard, the Ouda's prescriptive model (PM) is a framework that could explain all relevant requirements contributing to the implementation of accrual accounting and measuring the level of disclosure in the annual financial statements of the SLA. The framework, particularly designed for the developing countries is aptly applied for the third research objective in this study.

The PM is an entirely modified version of the Lüder's contingency model, its variants and also Ouda's BRM. Ouda (2010, 63) states that the main strength of PM rests on its ability "to explain the whole reform process and it comprises all relevant factors that are required for putting the accounting innovations into real practice…with a clear plan of progress established from the outset". The main objective of the PM is to assist the public sector organisation to move to a full accrual basis, including financial reporting, accounting records, and subsequently accrual budgeting by taking into account the cultural, administrative and technical changes.

The development of PM is triggered from Ouda's examination on the shortcomings of the previous governmental accounting innovation models (e.g. Lüder 1992, 1994, 2001; Jaruga and Nowak 1996; Godfrey, Devlin and Merrouche 2001; Christensen 2002; Ouda 2004). Specifically, Ouda (2010, 63) identifies five apparent weaknesses underpinning the previous models, namely: (i) black boxes; (ii) lack of treatment of government accounting innovations from a comprehensive perspective; (iii) emphasis on the context of innovations rather than their content; (iv) greater concern with the initiation phase rather than the actual transition phase; and (v) being considered as explanatory models rather than prescriptive models.

Ouda (2010) states that most of the contingency studies on government accounting innovation tend to understate the actual knowledge about the contents of reforms, resulted from the lack of practical experience among public sector accounting scholars. To find practical solutions, a 'practice-relevant from practitioner's perspective' is required through "considering the specific nature and essence of the governmental entities and tackling the practical accounting issues of concern to the practitioners" (Ouda 2015, 12). On this basis, the PM is a result of combining four requirements, specifically: (i) context factors (e.g.: culture); (ii) behavioural factors (e.g.: willingness to change); (iii) content factors (e.g.: treating specific accounting issues); and (iv) capacity factors (e.g.: IT) (Ouda 2010, 64). The PM is divided into three phases, namely: (i) reform decision-making phase (I), (ii) transition phase (II), and (iii) post-transition phase (III) (Ouda 2010, 75-88). The details of the model are illustrated in Appendix 3.6.

Despite its enormous strengths in the applicability of governmental accounting innovation, the contingency theory and its branch of approaches in general have also been subjected to criticisms. One of the arguments hurled at contingency theory is due to “its simplistic treatment of power, choice and the existence of multiple stakeholders, where each has many overlapping but different objectives” (Brignall and Modell 2000, 286). Basically, the arguments surrounded the contingency theory lie with its failure to address the disagreement among multiple interests of stakeholders, as well as the interaction of power during the implementation stage (Brignall and Modell 2000).

Still, contingency theory through Ouda’s prescriptive model is an appropriate framework used in examining the transition from cash based to a more informative of an accrual accounting system as the changes in the public sector organisation are contingent upon many factors (i.e. mixtures of internal and external variables). As mentioned earlier, the PM encompasses a comprehensive framework required for the innovation process which reflects the full cycle from the initial stage to the outcome by taking into consideration the contextual, behavioural, content, and technical and capacities variables. Moreover, it is considered as proven and practical experiences of the pioneer and reformer countries (e.g., New Zealand, UK and Australia) including the empirical studies that have been thoroughly tested and applied in both the developed and developing countries.

3.5.3 Institutional Theory

Institutional theory, sometimes termed as a ‘new institutionalism’ (Meyer and Rowan 1977; DiMaggio and Powell 1983), has been widely employed in many public sector accounting studies by deliberating the factors and consequences of accounting change (e.g. Carpenter and Feroz 2001; Falkman and Tagesson 2008; Collin et al. 2009). Although the use of institutional theory has drawn some criticisms due to its overemphasis on the outcomes (Dillard, Rigsby and Goodman 2004), somehow the approach is argued to be able to facilitate the process of accounting changes and extend the range of aspects of the government organisation and its environments (Bogt 2008).

Therefore, this thesis applies institutional theory for answering RQ2 as it deals with the interconnections between an organisation and its operating environments (Bergevärn, Mellemvik and Olson 1995; Adhikari and Mellemvik 2011) which consequently provide a basis to analyse the association between five selected variables and the SLA's accounting disclosure and practice.

3.5.3.1 An Understanding of Institutional Theory

By definition, the institutional theory is "a way of thinking about formal organisation structures and the nature of the historically grounded social processes through which these structures develop" (Dillard, Rigsby and Goodman 2004, 508). The theory that is developed within the management literature assumes that the society can influence and be influenced by the organisation's operating domain (DiMaggio and Powell 1991). Thus, the organisation responds to the institutional context pressure and adopt appropriate structure and practices that are well-accepted by the society so it can be seen legitimate by other organisations within their operating environments (DiMaggio and Powell 1983; Carpenter and Feroz 2001).

In the context of SLA, being part of member of the society is therefore influenced by the expectations of others (Qian, Burritt and Monroe 2011) which suggests that the pressures exerted from broader stakeholders have demanded the organisation to appear legitimate by securing resources for the survivability (DiMaggio and Powell 1983). Therefore, the adoption of accrual accounting is institutionalised once it is well-accepted by the organisation and become the absolute form of the management control (Burns 2000).

One of the key tenets of the institutional theory is legitimacy. The survivability of organisation depends on the perceptions of being competent and confirmed to each similar organisations, either by interacting with their institutional environments or meeting the external requirements (Meyer and Rowan 1977; DiMaggio and Powell 1983; Scott 1987; Carpenter and Feroz 2001). In certain circumstances, the adoption of practices that are compliant with certain rules and regulations, is more important than the technical efficiency of any organisational practices for the achievement of legitimacy (Delmas and Toffel 2004).

In relation to the perspectives of the public sector, accounting constitutes as part of the legitimating institution which might be pursued by various bodies such as national governments and international organisations (Baker and Rennie 2006). Hence, the organisations must be perceived to confirm what is expected from the general society to achieve the legitimacy. In the case of transitioning towards accrual accounting, the SLA might strive for operational legitimacy by adhering to the practices that have been successfully employed, either by the private sector organisations or other government settings that form an integral part of their environment.

3.5.3.2 Three Types of Isomorphism Concept

An important issue that deals with the institutional theory is the concept of isomorphism. In essence, the isomorphism is referred as "a constraining process that forces a unit in a population to resemble other units that face the same set of environmental conditions" (Hawley 1968, quoted in DiMaggio and Powell 1983, 149). In other words, it refers to the process through which one organisation tends to imitate others through homogenous norms and values (DiMaggio and Powell 1991). Due to these forces, "organisations will become increasingly homogeneous within the given domains and conform to expectations of the wider institutional environment", thus, influence their structure and practices (Carpenter and Feroz 2001, 566).

DiMaggio and Powell (1983) state that legitimated structures and practices are defused to organisations through three different mechanisms (isomorphism) namely: (i) coercive, (ii) mimetic, and (iii) normative. Empirically, these three forms of isomorphic are difficult to be distinguished from one another as two or more pressures may operate concurrently. Therefore, this study intends to consider several areas within institutional theory framework and below are the explanations of the three types of isomorphism, a useful concept to explain the accounting change in the public sector domain.

Coercive isomorphism occurs due to the regulative and political influences which stem from pressures exerted by other organisations, and by the society's cultural expectations upon whom the organisations are dependent on resources or support (DiMaggio and Powell 1983). In some circumstances, coercive isomorphism may come from the government mandate which demands direct response to the organisational change. From an institutional perspective, the adoption of accrual accounting as enforced by the Indonesian central government is a clear example of how the coercive isomorphism could shape on another level of government's accounting system. In this case, the passage of Law 17 2003 and reporting rules issued by the Ministry of Home Affairs in 2006 and 2007 have brought many influences on the introduction of the accrual accounting system at the Indonesia local government (Harun, An and Kahar 2013).

In relation to this study, the examples of coercive pressures include the implementation of accrual accounting for the Malaysian federal government which was initially scheduled in 2015 and the State governments in West Malaysia in 2016 and the rules, policies and procedures imposed by the Sarawak state government and the MLGH to the SLA. Drawing from the perspective of regulations, the concept of coercive isomorphism can be best explained in this study. Coercive isomorphism is also associated with the size measure. Consistent with the argument by Lynch (2010, 36) that states, "public sector organisations would be expected to face greater pressure to disclose information than private sector organisations…due to their larger, more diverse groups of stakeholders". The pressure can be witnessed through continuous recommendations as put up in the Auditor General's Reports for the larger councils to move to an accrual-based system (e.g. NAD 2015b; NAD 2016b).

Mimetic isomorphism, resulting from uncertainties, occurs when organisations attempt to adhere to the practices of other similar organisations which have been proven successful and more legitimate (DiMaggio and Powell 1983). Such imitation process is mainly triggered when there are uncertainties in the environment, for example, where organisational technologies and goals are far from reach (DiMaggio and Powell 1991). As stated by Collin et al. (2009, 153), "in the case of mimetic, the argument is cognitive, claiming that the organisations in the environment need the signal of accounting choice to be able to classify the organisation in a municipal category".

In this research, the study will investigate whether there is a tendency for smaller local authorities to adopt or imitate the financial practices of larger and established local authorities. This adoption refers to the technology infrastructure, i.e. accounting information system used by the larger local authorities. Although the adoption of a computerised accounting system with accrual accounting elements is part of coercive pressure as possibly directed by the Sarawak state government, the actual implementation of the accrual-based accounting information system by the SLA is considered to be socially acknowledged actions. This adoption perhaps is aimed to protect their legitimacy by not being conspicuously different which is consistent with the notion of mimetic isomorphism. Therefore, two types of pressures may exist simultaneously as in the case of the technology infrastructure.

While, the normative isomorphism stems mainly from professionalisation and expertise which occur through the two aspects that are resulted in a change in organisational practices and professional behaviours. The two drivers are formal education and the growth of cross-organisational professional networks (DiMaggio and Powell 1983). Additionally, it is the commonality of cultural and educational values associated with a professional orientation which leads the organisations to isomorphic behaviours in certain ways (DiMaggio and Powell 1991). Another source of normative isomorphism, as mentioned by Baker and Rennie (2006), is an expertise which claims to be an important driver in the reform implementation. Engaging auditing firms is another important factor that can exert normative pressures on their clients for them to comply with a certain set of rules (DiMaggio and Powell 1983). Being members of the professional association, auditing firms are central to the success of accrual accounting implementation in the public sector (Christensen 2005).

Practically, professionals with specialised expertise, such as accountants or auditors, contribute to the identification of shortcomings and offer solutions to the problem. Therefore, this study will investigate whether demographic background such as academic qualifications with the memberships to a professional accounting body could significantly contribute to the disclosure of accrual accounting information in the annual financial statements.

3.5.3.3 Insights from Past Accounting Studies Using Institutional Theory

This subsection provides a discussion of selected past studies that applied institutional theory as their theoretical underpinnings. Given that this study is based on the public sector accounting reform which is contingent upon many institutional pressures, it is therefore useful to apply institutional theory as one of the theoretical foundations. In support of the applicability of institutional theory in understanding the accounting change within the domain of public sector, Bogt (2008, 215) states that:

> The changes may have been intended not only to make organisations be more business-like and to increase economic efficiency and effectiveness, but also to show sensitivity- well-intentioned or superficial- to new external and internal demands, or to formally fulfil the new requirements and expectations…besides draws attention to the interrelatedness of the various elements.

Carpenter and Feroz (2001) engage institutional theory alongside resource dependency and agency theory in examining the organisational factors that influence the use of GAAP for external reporting. The study identifies three factors that may lead to the resistance of GAAP by four state governments in the US, which are: inactive participation of professional bureaucrats in the professional bodies (normative); organisational imprinting arising from the needs to amend statutes (mimetic); and powerful interest of elected officials (coercive). Based on insights from institutional theory, their findings predicted the potential change of the future adoption of GAAP for external financial reporting.

Christensen (2005) employs institutional theory to explore the impact of established private sector accounting firms towards the promulgation of accrual accounting in the New South Wales government in Australia. Being one of the pioneers of accrual accounting reformers, the New South Wales uses the expertise of the consultants extensively as the advisors to deal with accounting issues affecting the government. The study confirms that the forces of non-coercive isomorphism provide empirical evidence on the importance of private consultants in adding values to the public sector accounting change.

Falkman and Tagesson (2008) applies a combination of institutional and positive accounting theories to investigate the influence of the legislation and standard setting towards municipal accounting reform in Sweden. The results of the study reveals that size factor (mimetic) plays an important role in producing better accounting information as proven by the large municipalities. Additionally, auditing firms (normative) have great influence in ensuring the application of certain sets of accounting standards. Political interests and external stakeholders (coercive) are identified as additional factors that influence the compliance with accounting standard in the Swedish municipalities. The study concludes that the compliance level is below the modified compliance index.

Adhikari and Mellemvik (2010) investigate the extent of the adoption of cash basis IPSAS in South Asia countries using institutional theory as a theoretical foundation. It is revealed that the government accounting reform projects, among others including computerisation of government accounting and training development for the accountants, are dependent upon an international financial support (coercive and normative). Despite the enormous support given by the international financial bodies, the move from cash to the accrual basis of accounting seems to be far away. The study finds that the existence of mimetic pressure also occurs as in the case of Nepal which is modelled after the Sri Lankan financial statements.

Pollanen and Loiselle-Lapointe (2012) use insights from institutional theory and rational public theory to understand the rationale, methods, and impact of accounting reform in the Canadian government. Through semi-structured interviews, they find that the effort taken by the government in moving to the accrual accounting practices is driven by the quest to achieve operational legitimacy by adhering to the practices that have been successfully employed by Anglo-Saxon Countries (normative). The study also reveals that the Canadian government is influenced by the Office of the Auditor General (coercive and normative) and the Canadian Institute of Chartered Accountant’s Public Sector Accounting Board (normative). Overall, the success of accrual accounting implementation is below expectation as many government departments still use the old approaches for decision making due to the weaker use of legislative measures.

Oulasvirta (2014) adopts institutional theory to explore the reasons that influence a negative perception of IPSAS adoption by the Finnish government. The study discusses various groups that could shape the IPSAS's acceptance, which are: financial statement users; financial statement preparers; independent public accountants (Big Four audit firms); doors and lenders; state officials; and national regulators of accounting standards. The reluctance of Finland to adopt IPSAS is due to weak bureaucratic and political interest (coercive), lack of participation among accounting managers, board members as well as accounting firms and associations (normative), and pessimistic attitude by the national government accounting board (FGAB) and external stakeholders to adopt IPSAS (mimetic).

Goddard et al. (2015) interchangeably apply grounded theory method with the concepts of legitimacy, loose coupling, and isomorphism from institutional theory in their study of public sector accounting in Tanzania. Based on their study of accounting practices within central government, local government and NGOs, it was found that different results were recorded in terms of the perceptions of the institutional theory concepts among the three sectors. For instance, the commitment of public officials towards accounting change in central government is stronger than the local government.

3.6 SUMMARY

This chapter has discussed a thorough review that presents accrual accounting as the most suitable system to be adapted in all government settings. The significance of accrual accounting can be seen in many ways which allows a comprehensive financial management system. The transition from cash to accrual accounting may facilitate the "process of reform in the delivery of public services" (Hepworth 2003, 39). However, along with the journey, the transition requires a lot of efforts and strategies to mitigate the unforeseen challenges. This chapter has also presented a review of the relevant disclosure studies to provide a strong foundation to answer RQ2. Several factors have been identified that may influence the financial reporting disclosure practices. The last segment of this chapter discusses a theoretical framework to understand the accrual accounting change and its disclosure requirements in the SLA by drawing from the two theoretical frameworks, namely: Ouda's prescriptive model (the extension of contingency theory) and institutional theory.

The innovation of government accounting through the transition from cash to accrual accounting system is contingent based on many variables. The contingent variables are also influenced by other pressures: coercive, normative, and mimetic isomorphism. Therefore, all these three mechanisms should be well-interacted with the different contingent variables such stimuli factors for the smooth migration to accrual accounting. The two frameworks discussed in this chapter would help impart theoretical insights into the research questions and empirical data. This study aims to develop academic and theoretical thinking in merging the two theoretical frameworks which can be used particularly in the developing countries.

CHAPTER 4

RESEARCH METHODOLOGY, METHODS AND HYPOTHESES DEVELOPMENT

4.1 INTRODUCTION

To provide context to this research, Chapter 3 has presented a literature review on the public sector reform and its consequences towards the new development in financial management landscape and clarified the concepts of public sector accounting and reporting by focusing on accrual accounting practices. Chapter 3 has also discussed the international experiences on the accrual accounting adoption and reviewed the literature on the form and extent of reporting disclosure in the public sector organisations. The theoretical perspectives or sometimes termed as a theoretical paradigm leads to the selection of a proper approach of research methodology and methods are presented. As such, the Ouda's prescriptive model has been chosen as one of the theoretical frameworks for explaining the comprehensive transition context in moving towards accrual accounting, which is suitable for the developing countries. The previous chapter has described institutional theory, which deals with the interaction between the organisations and its social environment including the three isomorphisms underpinning the institutional framework.

This chapter presents the research methodology, methods and hypotheses development which is driven by nature, aim, and objective of the research. This chapter is organised as follows: Section 4.2 shows the research framework that depicts the diagrammatic representation of the transition towards accrual accounting and disclosure requirements in the SLA; Section 4.3 elaborates on the research paradigm adopted in this study; Section 4.4 describes the research method deployed in the study; Section 4.5 develops the hypothesis that empirically tests the independent variables and shows the conceptual schema; Section 4.6 outlines the research design for the quantitative study; Section 4.7 presents the research design for the qualitative study; and Section 4.8 concludes this chapter.

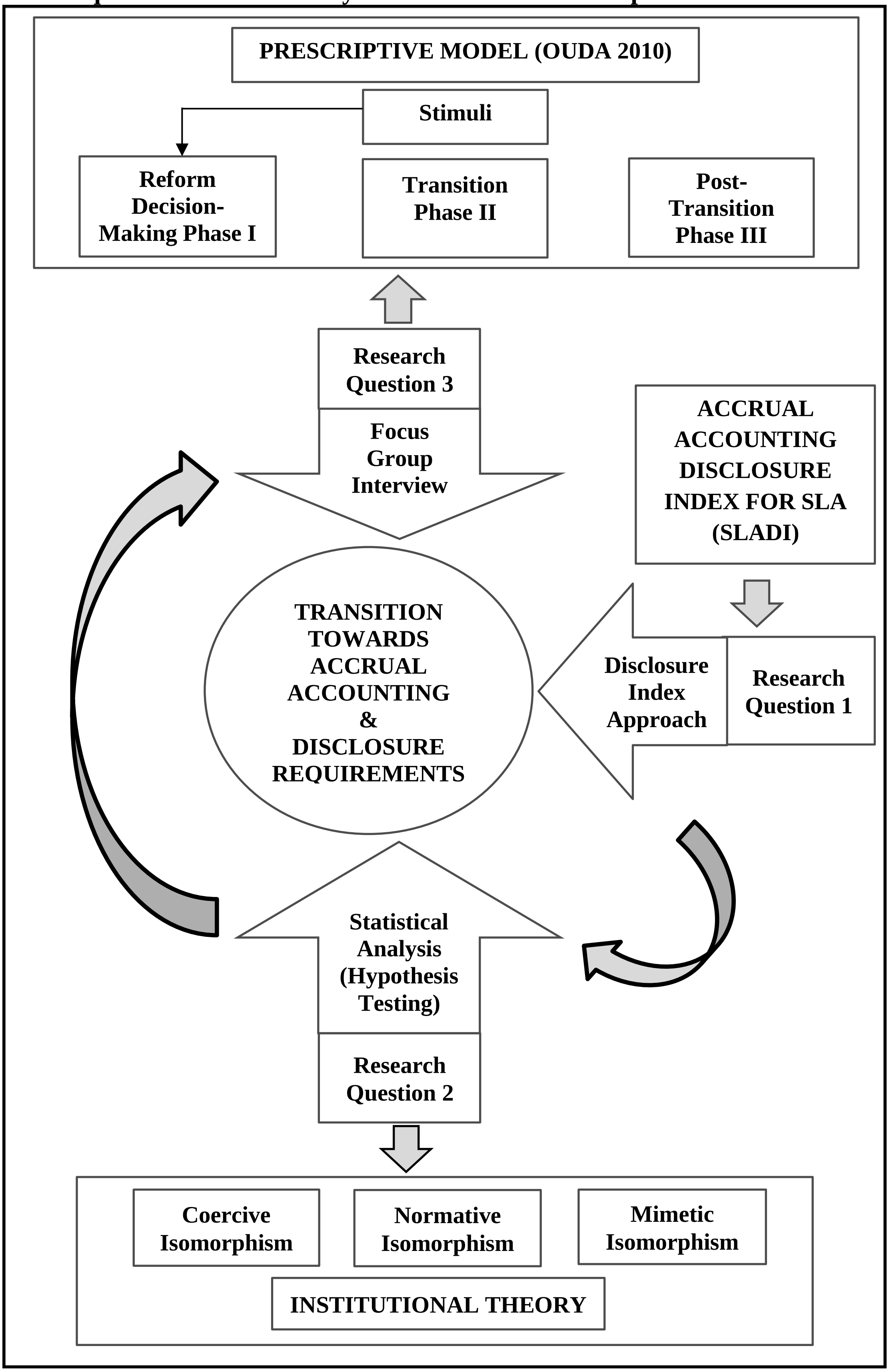
4.2 RESEARCH FRAMEWORK

As mentioned in Chapter 1, this thesis seeks to examine the disclosure requirements for the transition towards accrual accounting in the Malaysian public sector with the focus on local authorities in the state of Sarawak. Therefore, three specific research questions are crafted for testing by using mixed methods approach as the research objectives diverge beyond the identification of the research problem. Therefore, the study findings are expected to not only addressing the theoretical aspect but also extending to the needs of its realism, i.e. the adoption of accrual accounting framework for the SLA. The details of research methods deployed in answering the three research questions are explained in the subsequent section of this chapter.

To recap, the objective of RQ1 is to determine the extent of accrual accounting information disclosed by the twenty-six SLA. In this regard, a disclosure index is constructed by scoring the required items communicated in the annual financial statements from 2012 to 2015. RQ2 involves an execution of statistical analysis techniques to determine the determinants that influence the extent of accrual accounting disclosure. By adopting institutional theory, this study gains understanding of how the three types of isomorphism influence the disclosure of accrual accounting information. Lastly, the primary data collection technique is deployed through focus group interview in order to answer RQ3. By adopting extended contingency theory known as a 'Prescriptive Model' (Ouda 2010), the focus group findings are expected to enrich valuable insights associated with the disclosure requirements for the transition towards accrual accounting. Additionally, the information generated from the interview further complements the results generated from RQ1 and RQ2.

Figure 4.1 is a diagrammatic representation of the transition towards accrual accounting and disclosure requirements in the Malaysian public sector by focusing on the context of SLA by drawing a combined work of the Ouda's prescriptive model and institutional theory. The diagram summarises how the objectives of the study can be achieved by measuring the extent of accrual accounting disclosure in the annual financial statements and identifying the determinants and requirements associated with the transition towards accrual accounting in the SLA.

Figure 4.1: Transition towards Accrual Accounting and Disclosure Requirements in the Malaysian Public Sector: A Proposed SLA Model



Source: Author’s own conceptual framework.

4.3 RESEARCH PARADIGM

Research in accounting can be identical to one of the several paradigms which have its characteristics and principles. According to Guba and Lincoln (1994, 105), a paradigm is defined as "a basic belief system or worldview that guides the researcher". Specifically, a research paradigm refers to a set of postulation, principles and a thinking framework as for how the research can be conducted by looking at the reality and subject of research (Jonker and Pennink 2010). Also, the paradigm allows the treatment of "the best known epistemological stances as distinctive belief systems that influence how research questions are asked and answered and, take a narrower approach by concentrating on one's world views on the issues within the philosophy of knowledge" (Morgan 2007, 52).

Philosophically, the paradigm is underpinned by three main concepts, namely: ontology, epistemology, and methods (Guba and Lincoln 1994). Ontology denotes the beliefs of the researcher on the constitution of reality (Guba and Lincoln 1994). While epistemology refers to "philosophy of knowledge, especially regarding the methods, validity, nature, sources, limits and scope" (Jonker and Pennink 2010, 61). In brief, epistemology concerns with "how we know and what we know" (Crotty 1998, 8). On the other hand, methods are the aspect of paradigms in dealing with "specific research techniques" which include quantitative and qualitative methods (Silverman 2006, 15). Likewise, the methodology is the approach to research the context of a particular paradigm which has ontological and epistemological dimensions (Ryan, Scapens and Theobald 2002).

Traditionally, governmental accounting research was dominated by the positivistic methodology with the emphasis on producing quantitative data through hypothesis testing and statistical analyses (Goddard 2010) and identically related to the "accounting world of numbers" (Parker 2012, 59). However, the move from purely positivist approach has been slowly faded with the development of Lüder's contingency model towards a more exploratory, descriptive, and non-quantitative study (Saleh 2002). The paradigm movement from positivism to qualitative interpretivism and critical in the field of accounting has gained momentum in the late 1970s which seeks a better understanding of functioning accounting practices through better engagement with the respondents (Goddard 2010; Parker 2012).

Notwithstanding the strengths and weaknesses of positivist and interpretivist paradigms, this study adopts pragmatic approach with a tripartite combination of ontology, epistemology, and methodology to describe the social phenomena in the field of government accounting disclosures and innovations. This approach is consistent with the recommendation of Goddard (2010), in which he urges the future public sector accounting research to consider adopting a multi-paradigmatic approach that enables a deeper understanding on the research area. Other researchers have also emphasised on the assessment of alternative accounting research on the role of governmental accounting due to the extensive changes in the public service landscape (e.g. Broadbent and Guthrie 1992, 2008; Broadbent and Laughlin 2015).

Tashakkori and Teddlie (2003, 713) defines the pragmatism paradigm as:

> A deconstructive paradigm that debunks concepts such as 'truth' and 'reality' and focuses instead on 'what works' as the truth regarding the research questions under investigation…advocates the use of mixed methods in research, and acknowledges the values that the researcher plays in the interpretation of results.

The uniqueness of pragmatic approach is located on its position somewhere between positivism and interpretivism. Therefore, the pragmatists would take a stand by emphasising on the approach of "shared meanings and joint action" (Morgan 2007, 67) by manoeuvring the strengths and weaknesses of both positivism and interpretivism approaches in one research study, thus meeting the objectives of research questions (Johnson and Onwuegbuzie 2004). For instance, the pragmatists apply abductive process (somewhere within the inductive-deductive research cycle) in connecting the theory and data through two-way approaches between quantitative and qualitative research to search for useful points of connection (Morgan 2007). The pragmatism paradigm also acts as a buffer for those critically supporting positivism (quantitative) and interpretivism (qualitative).

Based on the above arguments, this study adopts the pragmatism paradigm as its research philosophy that allows the researcher to work with both quantitative and qualitative approaches and provide a better understanding of the social reality (Teddlie and Tashakkori 2009). The researcher strongly opines that the findings of both RQ1 and RQ2 (quantitative phase) will not be able to generate a comprehensive meaning if they were not supported by the deeper explanation as discussed in RQ3 (qualitative phase). Hence, a mixture of ontology and epistemology through objective and subjective approaches is employed to understand the extent of accrual accounting disclosure and more importantly, the determinants and requirements that contribute to the disclosure and transition to accrual accounting.

4.4 RESEARCH METHOD: MIXED METHOD

As stated by Johnson and Onwuegbuzie (2004, 17), mixed method research is defined as “the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language into a single study”. Mixed method research is chosen in this study as it offers greater insights and answers to all research questions, collects additional research evidence for complex situations, eliminates the weakness of both quantitative and qualitative research, thus produces a good quality of the study (Creswell 2013). Moreover, a combination of research methods in disclosure studies may give confidence in study findings (Guthrie and Abeysekera 2006). In Creswell and Clark (2011), they argue that the mixed method research contributes extra evidence in solving a research problem instead of relying on a single research, thus acts as a nexus for the oppositional divide that sometimes occurs between quantitative and qualitative approaches.

This study involves two phases, namely: quantitative (Phase 1 and 2) and qualitative (Phase 3). The quantitative method is used to answer the first two research questions, while the qualitative method is employed to answer the third research question. In Phase 1, annual financial statements are examined using a disclosure index that are benchmarked, among others, the LAFR and the MPSAS 1- Presentation of Financial Statements, as the primary references in examining the extent of the disclosure of accrual accounting information in the SLA’s annual financial statements. The Delphi panel experts are then employed to verify the disclosure index instrument. Consequently, the association between the five SLA-specific determinants (i.e. technology infrastructure, the size of local authorities, qualification of accountancy personnel, audit institution size, and regulations) with the level of disclosure is analysed using panel data analysis. In Phase 2, focus group interview is conducted involving the selected Head of Finance of SLA, as well as the representatives from the

NAD, the MLGH, the SAINS[25], and a managing partner of the audit firm. Consistent with Stewart and Shamdasani (2015), the presence of the legitimate experts is argued to be able to facilitate the interview session. This phase is important to clarify the factors influencing the disclosure level regarding the Phase 1 as well as requirements that contribute to the implementation of accrual accounting in the SLA.

The mixed method approaches, through segregation of phases, are consistent with the arguments by Johnson and Onwuegbuzie (2004) that qualitative approach can provide the insights of complex phenomena as well as the dynamic process of the research, and the quantitative parts numerically act to measure the outcomes. Therefore, the two-phase of sequential explanatory mixed method design (Creswell 2013) adopted in this study is identical with the approaches taken by Joseph (2010) and Abu Bakar (2013). Both studies examine the sustainability reporting in the MLA websites and investigate the accountability information in the MFSB annual report respectively. In principle, sequential explanatory design deals with the analysis and collection of quantitative data followed suit by the qualitative stage (Creswell 2013).

Similar to Joseph (2010) and Abu Bakar (2013), this study places equal weight on the quantitative and qualitative aspects. In Creswell (2013), putting equal priority in both phases may cause longer time for data collection, but in the opinion of the researcher, both phases are equally important to succeed the implementation of accrual accounting in the context of SLA. In this regard, the adoption of sequential explanatory strategy by placing equal priority on both phases facilitate the researcher to explore further requirements that may contribute to the disclosure of accrual accounting information in the annual financial statements of SLA. In essence, this design enables a detailed understanding of revealed issues and contradictions found in the analysis of the results which relates to the quantitative approach in Phase 1. Table 4.1 summarises the association between research objectives, questions, methods, and data sources.

[25] Sarawak Information Systems Sdn Bhd (SAINS) is an ICT Solution and Service provider's company, formed to spearhead the development and implementation of IT within the Sarawak state government.

Table 4.1: Summary of Research Objectives and Questions, Research Methods, and Data Sources

Phase	Research Objectives and Questions	Research Methods	Data Sources
1	**Research Objective 1:** To measure the extent of the accrual accounting disclosure in the Sarawak local authorities' annual financial statements from 2012 to 2015. **Research Question 1:** What is the extent of the disclosure of accrual accounting information in the Sarawak local authorities' annual financial statements?	Quantitative	- Annual financial statements from 2012 to 2015.
	Research Objective 2: To determine whether there is any significant association between the five SLA-specific determinants and the extent of the accrual accounting disclosure in the Sarawak local authorities' annual financial statements over the period of the study. **Research Question 2:** Do technology infrastructure, the size of local authorities, qualification of accountancy personnel, audit institution size, and regulations have significant associations with the disclosure of accrual accounting information in the Sarawak local authorities' annual financial statements?		- Annual financial statements from 2012 to 2015 (variables: size of local authorities and regulations); - Manual procedures of SLA's computerised accounting system (variable: technology infrastructure); - Human resource database (variable: qualification of accountancy personnel); and - List of the external auditors appointed by the NAD for the auditing of the annual financial statement from (variable: audit institution size).
2	**Research Objective 3:** To investigate the requirements and extent of influences that contribute to the transition and disclosure of accrual accounting information in the Sarawak local authorities. **Research Question 3:** What are the requirements and extent of influences that contribute to the transition and disclosure of accrual accounting information in the Sarawak local authorities?	Qualitative	Focus group interview.

4.5 RESEARCH HYPOTHESES DEVELOPMENT AND FRAMEWORK

This section presents a set of hypotheses for meeting the second research objectives whether there is any significant association between the five SLA-specific determinants and the extent of the accrual accounting disclosure in the Sarawak local authorities' annual financial statements over the period of the study. The five SLA-specific determinants hypothesised in this study are: technology infrastructure, the size of local authorities, qualification of accountancy personnel, audit institution size, and regulations. The dependent variable is the extent of the disclosure of accrual accounting information which is quantified from the SLA's annual financial statements. The 'extent' is defined here as the total amount of disclosure to gauge 'how much' the component of relevant accrual accounting items disclosed in RQ1.

The five independent variables were chosen after taking into consideration of several factors, including:

(i) The different aspects of internal and external environments of the SLA which may influence disclosure practices (The details of the discussion on the contextual, behavioural, content, and capacity factors of the SLA can be found in Chapter 6);

(ii) The three types of institutional isomorphism that help to explain the factors influencing the disclosure of accrual accounting information (refer subsection 3.5.3);

(iii) The availability of data;

(iv) The observations made about the governmental accounting reform in developed countries and also the main focus areas identified by the Malaysian government for the transition roadmap to accrual accounting (refer Chapter 3);

(v) Opinions of the senior officials of the MLGH on the elements that could contribute to the implementation of accrual accounting in the SLA; and

(vi) Audit findings as revealed in the series of the Auditor General's report (refer subsection 2.4.2).

4.5.1 Hypothesis One: Technology Infrastructure

Several number of previous studies on the public sector accounting reform have discussed the relationship between technology infrastructure and its key success factors (e.g. Saleh and Pendlebury 2006; Wynne 2007). Not only that technology infrastructure presents challenges to the organisation, it also facilitates the implementation of accrual accounting system through its technical features (Seguin 2008; Pollanen and Loiselle-Lapointe 2012). Therefore, the move from cash to accrual system which is in tandem with the public sector reform process, "should involve an increased use of computerised information systems as a key component…to adopt accrual accounting" (Ouda 2003, 37) as well as to require an upgraded system to linkage the additional information with accruals (Blöndal 2003). Moreover, the move towards accrual accounting will remain futile "without the aid of a modern government financial management information system with a proven functionality in areas such as general ledger, accounts payable, asset management, etc." (Khan and Mayes 2009, 13).

Drawing from the institutional theory perspectives, a directive from the Malaysian federal government to harmonise the practices of an accounting system is one of the forms of direct coercive pressure. In this case, the direct coercive pressure can be reflected through the issuance of AGD Circular Issue No 1, 2015 for the implementation of SAGA in the financial reporting. In the context of Sarawak state government, a directive issued by the State authority was reported to have an impact towards the IT reform on accounting system application in at least the two city councils which was consistent with the notion of coercive isomorphism (Joseph and Janggu 2007).

On the other hand, different types of accounting practices reported in the SLA may be logically due to various accounting software and technical features adopted by the respective SLA (Ernst & Young 2009). The different types of accounting software are more likely to induce dissimilar disclosure of accounting information in the annual financial statements among the SLA. However, it is possible for the Sarawak municipal and district councils to adopt a software system that incorporated all proven functionality as practised by the city council. The tendency of smaller councils to adopt financial practices of the larger council and vice versa is consistent with the key tenet of mimetic isomorphism to be seen similar to their established counterparts. Therefore, the following hypothesis in its alternate form is stated as:

H_1: There is a positive association between the technology infrastructure and the extent of disclosure of accrual accounting information in the annual financial statements of SLA.

4.5.2 Hypothesis Two: Size of Local Authorities

Many public sector accounting studies have hypothesised that the government size is one of the important variables for the choice of accounting standard (e.g. Allen and Sanders 1994; Ryan, Stanley and Nelson 2002; Falkman and Tagesson 2008). Similarly, the government size is found to be positively associated with various disclosure practices including financial disclosures (Gordon and Fischer 2008). Based on the prior literature, larger organisations were reported to have greater disclosure levels for several reasons, namely: (i) from the institutional theory context, larger organisations with adequate accountants are postulated to generate a positive tendency to comply with the acceptable accounting standard (Falkman and Tagesson 2008); (ii) larger organisations are subjected to greater scrutiny from the mass media, resulting in the increase of the perception of normative pressure on these organisations, therefore more susceptible to better and comprehensive disclosure of information in the annual reports (Falkman and Tagesson 2008); (iii) the economies of scale, which are associated with the cost of gathering, collecting and reporting information (Laswad, Fisher and Oyelere 2005); and (iv) bigger number and more diversified staff which give an opportunity for them to undergo a specialised training with regards to the preparation of the annual reports (Christiaens and Peteghem 2007).

Although there are several ways to measure an organisation's size, the local authorities' revenue, in the form of assessment rates collection is employed due to its direct relationship with the number of assessed properties and resources required in governing the local authorities, in which will produce a better reporting disclosure. In this study, size factor is appropriately measured by the income derived from assessment rates. Therefore, larger councils are projected to produce comprehensive levels of financial disclosure as compared to the smaller councils which can be explained using the concept of informal coercive isomorphism. Consistent with the institutional theory, larger organisations are pressured to show greater disclosure for compliance with societal requirements (Meyer and Rowan 1977). As such, the size of local authorities is expected to postulate a positive correlation with the extent of disclosure of accrual accounting information. Therefore, the following hypothesis in its alternate form is developed as follows:

> **H_2**: There is a positive association between the size of local authorities and the extent of disclosure of accrual accounting information in the annual financial statements of SLA.

4.5.3 Hypothesis Three: Qualification of Accountancy Personnel

In the literature regarding public sector financial management reform, human resource capabilities have been regarded as an important variable that influences the adoption of accrual accounting in one organisation (e.g. Seguin 2008; Solomons 2012). As reported by Cohen, Kaimenaki, and Zorgios (2007), insufficient accounting knowledge and unavailability of any professional bodies membership have resulted in the accountancy personnel to encounter difficulty in assessing the accounting information regarding its functionality, accuracy, and usefulness. In other study by Mir and Sutiyono (2013, 99), they assert that "the supply of accounting information is dependent on the training and education of accountancy personnel". Therefore, diverse professional training and high-quality academic qualifications which include commercial working experience and knowledge are instrumental in producing a more encouraging attitude towards the accounting change (Lüder 1992).

From the institutional theory perspective, innovation linked to cultural authority is more likely to have greater influence and easier implementation of accounting reform, notably with the support of professional accountancy bodies (Meyer & Scott 1982 and Meyer & Rowan 1977, quoted in Carpenter and Feroz 2001, 570). In consideration of the dominant role of accrual accounting towards the "qualification requirements of professional accountancy bodies", the change in the governmental accounting basis is directly associated with the increasing number of employed qualified accounting personnel (Saleh and Pendlebury 2006, 430). By using the normative isomorphism, the SLA with the high qualification of accountancy personnel is more likely to produce better content of annual financial statements. The SLA are also hypothesised to be more motivated to disclose accrual accounting information, as educational values are associated with the professional membership possessed by the accountancy personnel, in which could drive the SLA to isomorphic behaviours. Therefore, the following hypothesis in its alternate form is designed as follows:

H_3: There is a positive association between the qualification of accountancy personnel and the extent of disclosure of accrual accounting information in the annual financial statements of SLA.

4.5.4 Hypothesis Four: Audit Institution Size

The existence of audit institution is perceived to impart better practices of commercial accounting profession towards public sector accounting (Saleh 2007). The audit institution can be in the form of external standard setting bodies such the NAD (Saleh 2013) which has a stimulating effect on the development of informative governmental accounting system or the professional bodies, that can assist in the technical guidance aspects (Lüder 1992). Additionally, the auditing and consulting institutions have been reckoned as an essential factor in the process of institutionalising accounting standards and compliance reporting in the public sector domain (Luder & Jones 2003 and Christensen 2005, quoted in Christiaens and Peteghem 2007, 275; Falkman and Tagesson 2008). Therefore, being auditors, they can exert pressure to determine whether the organisations will receive an auditor's report or *vice-versa* about their structure and relations (Collin et al. 2009).

In contrast, some empirical studies have shown mixed results. For instance, the presence of audit institution (Big Eight audit firms)[26] does not necessarily provide a higher quality service, thus contribute to the better disclosure level for the local authorities' financial statements (Copley 1991). It implies that a smaller audit size may also strive to provide better service to maintain the reputation of audit quality. Similarly, Gordon et al. (2002) finds that state auditors impart better influence on the financial and non-financial disclosures as compared to the public accounting firm auditors. The study also reveals that the annual report audited by the established and renowned accounting firms do not show a greater level of disclosures.

However, some institutional theory scholars (e.g. DiMaggio and Powell 1983; Baker and Rennie 2006) assert that conformance to the set of rules as recommended by the auditing firms is a result of the normative pressure. Additionally, established audit firms are argued to be able to provide higher quality audit as a result of maintaining the firm's status, thus producing better disclosure information (Dor and Ming 2014;

[26] In today's context, the Big Eight firms are commonly known as Big Four after a series of mergers.

Barros, Boubaker and Hamrouni 2013). Based on the institutional theory perspective, it is expected that the internationally based audit firms will have more normative isomorphism towards accrual disclosure despite the mixed results of the empirical studies. As a result, there is a predicted direction that the SLA which are audited by the larger and global network of audit firms, to be able to provide greater disclosure of financial information as compared to the local based audit firms. Therefore, the following hypothesis in its alternate form is constructed as follows:

> **H_4**: There is a positive association between international affiliated audit firm and the extent of disclosure of accrual accounting information in the annual financial statements of SLA.

4.5.5 Hypothesis Five: Regulations

Institutional theory suggests that regulations are a relevant organisational factor for the government's public service reform (Brignall and Modell 2000). As experienced by the regulators in New Zealand, the enactment of the Public Finance Act 1989 has positive effect on the compliance of the financial reporting with the GAAP (IFAC 1994), which subsequently triggered to the full accrual accounting adoption by all government departments since 1991 (Simpkins 1998). Likewise, the requirements set out in the CIPFA Code of Practice on Local Authority has influenced the UK local authorities to adopt proper accounting and disclosure practices (Tayib, Coombs and Ameen 1999). Additionally, the enforcement of law at the local government level in France has sparked the introduction of accrual system which is also part coercive isomorphism (Lande 2006). Therefore, the regulatory factors are considered as a significant contributor in the quest towards full accrual accounting implementation by the Malaysian government. In this regard, the establishment of policies and standards and an amendment to the Financial Procedure Act 1957 have been identified as the critical areas emphasised by the Malaysian governments (IPSASB 2013).

In Malaysia, accounting standard setting for the public sector is under the purview of the AGD as specified in the Treasury Instructions. The objective of the standard is to ensure that all public sector accounts are prepared in using the approved accounting standards (Saleh 2013). As mentioned in Chapter 1, the Malaysian government had issued circular TC4/2013 as one of its efforts to implement accrual accounting system. As part of the coercive isomorphism, MPSAS 1 and the FGAAM were also issued which should be complied with all the Federal Ministries. The efforts taken by the Malaysian government towards the accrual accounting implementation can also be felt in the context of the SLA through the spill-over effect of the Financial Management Transformation under the SCS 10-20 Action Plan.

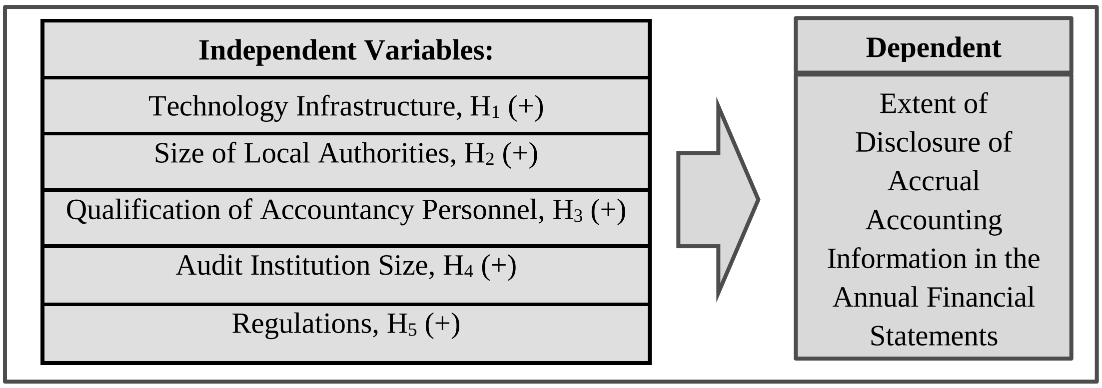
As such, the pressure arising from the issuance of accounting standards and regulations by the Malaysian government is postulated to affect the SLA's disclosure practices. According to Carpenter and Feroz (2001) and Falkman and Tagesson (2008), the more dependent the local authorities are, the more pressure they would feel for compliance with the regulations imposed by the central government. The adoption of accounting standards other than the statutory requirements of the LAFR by some local authorities is also a form of mimetic isomorphism, to enable them to conform to the expectation of the other government's institutions such as the NAD. Therefore, the following hypothesis in its alternate form is specified as follows:

> **H_5**: There is a positive association between the existence of regulations and the extent of disclosure of accrual accounting information in the annual financial statements of SLA.

4.5.6 Research Hypothesis Framework

Figure 4.2 provides a framework addressing the testable hypothesis. It is hypothesised that the five independent variables, namely: technology infrastructure, size of local authorities, qualification of accountancy personnel, audit institution size, and regulations would have a significant positive association with the dependent variable.

Figure 4.2: Research Hypothesis Framework



Source: Author's own diagram, based on the development of research hypothesis.

4.6 RESEARCH DESIGN (PHASE 1: QUANTITATIVE)

This section discusses the methods used in the quantitative phase for meeting the first two research objectives, which are: to measure the extent of the accrual accounting disclosure and to determine whether there is any significant association between the five SLA-specific determinants with that disclosure measurement.

4.6.1 Population and Sample

All SLA in Sarawak jurisdiction constitutes the samples for this study. The sample periods covered four consecutive financial years commencing from 2012 to 2015. The following considerations were taken into account in the selection process:

(i) The official launching of the SCS 10-20 Action Plan in 2012 which is also in tandem with the GTP thus impart some implications on the accounting practices of the SLA, particularly the disclosure of annual financial statements for the year 2012;

(ii) The launching of the complete overhaul of the new accounting system called eLA2 in May 2012 which is expected to impart positive impacts on the financial reporting disclosure; and

(iii) The positive externalities arising from the establishment of a working group by PEMANDU in 2011 to develop the accrual accounting implementation plan at the Federal and State governments' level.

The samples over the four consecutive periods translate to a total of 104 SLA-year observations. This sample selection approach allows internal validity, longitudinal analysis and sufficient sample size for the study.

4.6.2 Source of Data

Annual financial statements for the year ended 2012, 2013, 2014 and 2015 are the main sources of data collected. The scope of analysis is only confined to four years due to a few considerations as mentioned in subsection 4.6.1. More importantly, the cut-off point of the financial year 2015 was made due to the unavailability of 2016 annual financial statements and onwards at the time of data analysis stage. At the time of the first stage of data collection was undertaken (May 2015 to February 2016), the annual financial statement for 2015 had not yet been submitted to the NAD for auditing. It should be noted here that under Regulation 37 of the LAFR, every local authority should prepare and present the annual statements of the preceding financial year within four months following the close of the financial year for auditing. Also, the local authority should submit a copy of its audited annual financial statements to the MMKN and subsequently be tabled at the Sarawak State Legislative Assembly for approval before being made available to the public.

On the other hand, the second stage of data collection for the 2015 annual financial statements began in December 2016 and was completely collected in January 2017 after the reports were approved at the Sarawak State Legislative Assembly and made available to the public. According to the senior accountant of MLGH, the certification of the whole set of SLA's annual financial statements for the year ended 2015 by the NAD was only obtained in August 2016. The delay was caused by the implementation of 'Good and Services Tax (GST)' for the local government services which affected the preparation and disclosure of annual financial statements for auditing purposes. Consequently, this study only covered the annual financial statements from 2012 to 2015.

In this study, the annual financial statements were obtained physically from the respective SLA and MLGH. The majority of the SLA do not publish their annual financial statements electronically on their websites. Consistent with Coombs and Tayib (2000), there is no such requirement made under the Malaysian law that mandates the government's financial statement to be made available to the general public except for the full publication in the official government gazette after auditing. In effect, the electronic publication exercise contradicts the practice of Malaysian private companies which reported an increasing trend of publishing information such as financial reports online to facilitate the public to access the required information (Khan and Ismail 2011).

The collection of the SLA's annual financial statements entailed the following process:

Step 1: An official letter was sent to the Permanent Secretary of MLGH in May 2015 to obtain a complete set of the annual financial statements for the twenty-three local authorities under the purview of that Ministry. Due to the financial constraint and geographical and connectivity factors of the state of Sarawak, the researcher decided not to collect each financial statement from the individual local authority. The annual financial statements collected from the MLGH do not include three local authorities; namely: DBKU, MBKS, and BDA which administratively reporting to the General Administration Unit of Sarawak Chief Minister's Department. As such, the financial statements were directly obtained from the three respective local authorities via official letter and email, and directed to the Head of Finance Division in April 2015.

Step 2: If no response was received within a stipulated time from the letter and email requests, telephone calls were to be made directly to the respective Head of Finance Division and senior accountant from the MLGH.

Based on the two steps given, the overall process of obtaining the annual financial statements took approximately 12 months, i.e., Stage 1: May 2015 to February 2016 (10 months), and Stage 2: December 2016 to January 2017 (2 months). Although the process of collecting the entire set of annual financial statements is time-consuming, the researcher had anticipated the obstacles from the beginning of the study as the reports were required to be laid before the Sarawak State Legislative Assembly for approval. Many authors have long acknowledged the difficulty in obtaining governments financial reports due to certain reasons such as the documents are not electronically accessible and published promptly (Dixon et al. 1991, Banks & Nelson 1994 and Taylor 2006, quoted in Abu Bakar 2013, 143).

In addition, this study extracts information from other internal government documents, namely:

(i) Manual procedures of the SLA's computerised accounting system;

(ii) Human resource database which contains information on the academic qualification and professional membership of the Head of Treasury Division; and

(iii) A list of external auditors involved in the auditing of annual financial statements of the SLA.

The manual procedures of the SLA's computerised accounting system were obtained from SAINS; a state government-linked-company that provides information communications technology solutions and services to the government. Apart from collecting hardcopy documents, a briefing was also given by the two senior managers of SAINS in March 2016 to gain a deeper understanding of the system functionalities used by the respective SLA.

As for the human resource database, the researcher obtained a copy of personnel record of the Head of Finance Division for the twenty-three SLA encompassing basic information such as academic qualification and professional bodies' membership from the MLGH in February 2016. For DBKU, MBKS and BDA, the information was conveyed to the researcher by the respective local authorities, either via email or telephone call. A full list of external auditors involved in auditing the SLA was obtained from the NAD since the auditor's information is not available in the annual financial statements.

4.6.3 Dependent Variable: Disclosure Index

This subsection is designed to elaborate the method used for answering RQ1 of this study, i.e. to what extent the SLA disclosed accrual accounting information in their annual financial statements from 2012 to 2015. Generally, the financial information disclosed by the public sector institutions are difficult to comprehend although its quality is progressively improved (Coombs and Tayib 2000). In this connection, many accounting studies have discussed the importance of accruals in improving the quality of disclosure (Dargenidou, McLeay and Raonic 2011), particularly due to its completeness, relevancy, clarity, comparability and reliability (Bolívar, Caba-Pérez and Hernández 2006).

A disclosure index has long been deployed in the area of public sector studies with the aim of measuring the disclosure level in the annual reports (e.g. Singh and Bhargava 1978; Ingram 1984; Robbins and Austin 1986; Giroux 1989). Despite its partiality in the selection of items, the disclosure index constructed is deemed to be useful and effective in gauging the disclosures made by the institution (Hooks, Tooley and Basnan 2012). Therefore, disclosure index and content analysis have been commonly utilised as the techniques for measuring the level of disclosure (Marston and Shrives 1991; Jones and Shoemaker 1994; Guthrie and Abeysekera 2006).

According to Krippendorff 1980, quoted in Elo and Kyngäs (2008, 108), content analysis refers to "a research method for making replicable and valid inferences from data to their context, with the purpose of providing knowledge, new insights, a representation of facts and a practical guide to action". The techniques have been widely employed in accounting research, especially in the study of social environmental reporting (Guthrie and Abeysekera 2006) either in quantitative or qualitative data, and inductive or deductive way (Elo and Kyngäs 2008). In brief, contents analysis concerns in managing diverse empirical data, which "involves codifying quantitative and qualitative information into predefined categories in order to derive patterns in the presentation and reporting of information" (Guthrie et al. 2004, 287).

Disclosure index, a subset of content analysis (Marston and Shrives 1991; Teodori and Veneziani 2010) is a technique that involves a weighting system to measure the occurrence of the disclosed item (e.g. annual financial statements) which consequently establishing a score that reflects the level of disclosure (Tooley and Guthrie 2007). Coy and Dixon (2004, 79) define disclosure index methodology as:

> Disclosure indices are an oft-applied method in accounting research, particularly in studies of annual reports, being used to provide a single-figure summary indicator, either of the entire contents of reports of comparable organisations or of particular aspects of interest covered by such reports (e.g. voluntary disclosures and environmental disclosures.

Coy and Dixon (2004, 82) also state that:

> An index comprises of numbers that encapsulate, in single figures, objects in the set that one wants to measure and that is capable of measurement. Each number in a valid and reliable index is reached uniformly by determining scores for each of, possibly, many component items, which have been identified as relevant to the set and the purposes of the index. These component item scores are then combined in a meaningful way in order to ascertain the index number for each object in the set.

The mechanisms, subsequently, are achieved through scoring a 'one' for the present item and those not present by a 'zero' (Beck, Campbell and Shrives 2010).

Public sector disclosure studies have used various approaches to develop disclosure index which includes the disclosure requirements as specified by various authoritative guidelines provided by the professional, and regulatory bodies (e.g. Coombs and Tayib 2000; Gore 2004; Caba-Pérez and López-Hernández 2009). Hence, this study adopts disclosure index, a form of content analysis as an instrument to measure the extent of the disclosure of accrual accounting information in the annual financial statements of SLA.

In this study, the researcher reviews a few disclosure studies conducted by some renowned authors, which use various statutory and non-statutory requirements as the guidelines in developing the index. Giroux (1989), in his study on governmental accounting of the US cities, applies the National Council on Governmental Accounting (NCGA) Statement 1, 1979 as the basis for determining the disclosure indices. On the other hand, Pina, Torres, and Yetano (2009) examine the published financial statements of 51 local governments in 20 EU countries by taking the IPSAS as a framework for the accrual disclosure indices. In the same year, Caba-Pérez and López-Hernández (2009) also apply IPSAS as references for developing an index in analysing the informational transparency of central governments in the MERCOSUR countries. In the context of Malaysia, Coombs and Tayib (2000) use a disclosure index based on the CIPFA Code of Practice on Local Authority Accounting in their comparative study in examining the local authority financial reports of the UK and Malaysia. While Ali and Saidin (2016) adopt statutory disclosure requirements as stipulated in the Acts (LGA, Statutory Bodies Act (1980) and Audit Act (1957)), Treasury Circular, and accounting standards that apply in the Malaysian context for developing the mandatory disclosure instrument.

Therefore, the measurement of the level of accrual accounting disclosure for each SLA in each year encompasses a two-stage procedure, namely: (i) developing the accrual accounting disclosure instrument, and (ii) scoring the accrual accounting disclosure items. Based on the scores, the disclosure index is then calculated for each SLA in each period. The detail of each stage is illustrated below.

4.6.3.1 Development of the Accrual Accounting Disclosure Index

In carrying out this study, the selection of items recommended for incorporation in the disclosure instrument is based on the self-constructed index as there are is no single best guideline that can be benchmarked as the index criteria (Wallace, Naser and Mora 1994). Additionally, the self-constructed index offers higher construct validity since it is developed to tailor with specific research questions (Webb, Cahan and Sun 2008).

Therefore, the two main sources that were applied in developing the self-constructed index are the statutory requirements disclosure (Regulation 39, LAFR) and the non-statutory requirements disclosure (MPSAS 1- Presentation of Financial Statements). In addition, early comparison between the disclosures as required by Regulation 39 of the LAFR and MPSAS 1, and DBKU annual financial statement for the year ended 2014 which was prepared using the accrual basis of accounting was conducted. This procedure was to ensure the completeness of disclosure items under accrual basis of accounting.

Since the study is aimed at measuring the extent of the accrual accounting disclosure levels, the self-constructed index is deemed necessary by taking into account the different sets of laws and regulations, as well as the setting of the SLA as compared to their counterparts in Malaysia and also other countries. The review of prior studies relevant to the context of accrual accounting disclosures was also conducted as a mean of checking the accuracy of accrual accounting disclosure index (Pina, Torres and Yetano 2009). For instance, Ali and Saidin (2016) develop the disclosure index based on three steps, namely: (i) identify potential items and source of reference, (ii) develop the draft index, and (iii) establish a final index.

In this study, there were four steps involved in developing the self-constructed disclosure index instruments:

Step 1: The study reviewed the disclosure requirements as stipulated under Regulation 39 of the LAFR which stipulate the accounts that shall be incorporated in the annual financial statements of the SLA. As mentioned in Chapter 2, the Regulation 39 of the LAFR classifies the disclosure requirements into 13 categories, namely: (i) Annual Abstract Accounts, (ii) Statement of Assets and Liabilities; (iii) Detailed Statement of

Revenue; (iv) Detailed Statement of Expenditure; (v) Detailed Statement of Advances (by types); (vi) Detailed Statement of Deposits (by types); (vii) Statement of Reserve Fund; (viii) Statement of Renewals Fund; (ix) Statement of Trading Accounts (if any); (x) Debtors' Accounts; (xi) any other accounts or records which might be called for by the Auditor General or the Minister; (xii) Detailed Statement of Revenue that compare actual against the estimated receipts, with an explanation if there was any difference exceeding 5% between any actual and estimated receipts, an explanation of the difference should be reported; and (xiii) Detailed Statement of Expenditure that compared actual against the estimated expenditures, with an explanation if there was any difference exceeding 5% between any actual and estimated expenditures, an explanation of the difference should be reported.

Then, modifications of disclosure categories were made to the Regulation 39 of the LAFR based on a comparison with DBKU annual financial statements for the year ended 2014. If there were differences between the statutory requirements and DBKU's presentation format, this study applied the disclosure format as presented in the DBKU 2014 audited report as it was prepared using the accrual basis of accounting. In this regard, the disclosure categories as presented in the DBKU 2014 annual financial statement were translated from Bahasa Malaysia (the National language) into English language. Among the additions made in this step was the inclusion of two categories, namely: Cash Flow Statement and Statement of Changes in Net Asset/ Equity. The modified disclosure checklist comprising 13 categories is presented in Table 4.2.

Table 4.2: Initial Categories based on the Modification of the Regulation 39, LAFR and DBKU 2014 Audited Report

No.	Categories			
	Regulation 39, LAFR	**DBKU 2014 Annual Financial Statements**	**Proposed Modification (Step 1)**	**Remarks**
1.	Annual Abstract Accounts	- List of council members; - Table of contents; - Statement by council members; - Audit report; and - Statutory declaration by the accounting officer	-	This general information is excluded from the proposed modification as the study is only interested in measuring accrual accounting items.
2.	Statement of Assets and Liabilities	Balance Sheet	Balance Sheet	No changes.
3.	Detailed Statement of Revenue	Income Statement	Income Statement	Detailed Statement of Revenue and Expenditure are presented under Income Statement as in the case of DBKU.
4.	Detailed Statement of Expenditure	-	-	
5.	Detailed Statement of Advances (by types)	-	Notes to the Financial Statements	Detailed Statement of Advances, Deposits, Trading Accounts and Debtors Account are presented under Notes to the Financial Statement as in the case of DBKU. While Statement of Reserve and Renewals Funds are disclosed separately under Statement of Changes in Net Assets/Equity.
6.	Detailed Statement of Deposits (by types)	-	-	
7.	Statement of Reserve Fund	-	-	
8.	Statement of Renewals Fund	-	-	
9.	Statement of Trading Accounts (if any)	-	-	
10.	Debtors' accounts	-	-	
11.	Any other accounts or records which may be called for by the Auditor General or the Minister;	-	-	Not applicable.
12.	Comparison of actual against estimated receipts	-	Statement of Budget Performance	DBKU does not disclose the statement of differences between actual amount and budgeted amount.
13.	Comparison of actual against estimated expenditures	-		
14.	-	Cash Flow Statements	Cash Flow Statements	Statements of Cash Flow and Changes in Net Assets/Equity are non-statutory requirements under the LAFR.
15.		Statement of Changes in Net Assets/Equity	Statement of Changes in Net Assets/Equity	

Step 2: Additional modifications to the disclosure categories were made to the categories in Step 1 based on a thorough inspection of the non-statutory requirements of MPSAS 1- Presentation of Financial Statements. In contrast with Ali and Saidin (2016), other items that do not fall under existing laws and regulations are categorised as non-statutory requirements. The researcher also did an additional review to MPSAS1 by referring to the FGAAM, issued by the AGD in 2015 for obtaining detailed explanation. Correspondingly, the FGAAM serves as a guide for the Federal departments regarding the recognition, measurement, and disclosure requirements for the production of financial statements based on the MPSAS accrual basis.

Eight sets of subcategories were also incorporated by taking into consideration of the disclosure requirements as reported in both MPSAS 1 and DBKU 2014 annual financial statement, which only applies to the Statement of Financial Position and the Statement of Financial Performance categories. Sub-categories were introduced to relate to each main category in order to produce a comprehensive disclosure instrument. The approach of segregating subgroups is consistent with Abu Bakar (2016), while the incorporation of non-statutory requirement items which is equally applicable to all SLA reporting entities is similar to the practice of Robbins and Austin (1986). The additional modifications to the disclosure categories and the introduction of subcategories are presented in Table 4.3.

Table 4.3: Categories and Sub-Categories of the Accrual Accounting Financial Statements

Category	Sub-Category	Remarks
1. Statement of Financial Position	Current assets	As reported in the MPSAS 1, the Balance Sheet was renamed as the Statement of Financial Position. Both MPSAS 1 and DBKU 2014 audited report disclose similar sub-categories.
	Non-current asset	
	Current liabilities	
	Non-current liabilities	
	Net asset/equity	
2. Statement of Financial Performance	Revenue	Income Statement was renamed as the Statement of Financial Position based on the MPSAS 1. The sub-category was segregated into 3 parts based on the DBKU 2014 audited report. In MPSAS 1, depreciation and amortisation expenses are presented under expenses component.
	Expenses	
	Depreciation/amortisation expenses	
3. Statement of Changes in Net Asset/Equity		These three categories are also presented in MPSAS 1.
4. Cash Flow Statement		
5. Statement of Budget Performance		
6. Notes to the Accounts		Notes to the Financial Statements was renamed as the Notes to the Accounts as presented in the MPSAS 1.

Step 3: At this stage, a set of disclosure items was incorporated based on the items disclosed in the DBKU 2014 annual financial statement. Modifications to remove and add items that may apply to all SLAs were made by understanding the overall functions of the SLA through a thorough review of the LAO, LAFR, BDO, and SBO. Although this approach might lead to subjectivity, this was essential to ensure all items were relevant and applicable to all SLA which was based on the accrual accounting principles. This approach was also taken to ensure the disclosure items were achieved within a reasonable limit. Apart from that, modifications were made which relate the principal basis, convention, rules and practices applied to the information disclosed in the annual financial statements, as recommended by the MPSAS and the FGAAM.

This method is consistent with Allen and Sanders (1994) who add several items in their disclosure index study as the result of the variations in the application of GAAP and non-GAAP conformance for reporting practices. Caba-Pérez and López-

Hernández (2009) also adopt similar approach by creating an index which relates the IFAC's minimum requisites against the actual information disclosed in the MERCOSUR's annual public financial reports. The minimum disclosure instrument was further developed by incorporating information items to supplement explanation for the two categories, namely: Statement of Financial Position and Statement of Financial Performance. Subcategory and disclosure item were also revised based on the applicability and relevancy of items disclosed by the SLA. An example is the expansion of the revenue subcategory which was extended to six disclosure items. Table 4.4 below depicts the number of disclosure items derived from the initial development of minimum disclosure index instrument for the SLA.

Table 4.4: Initial Development of the Minimum Disclosure Index Instrument

Category	**Number of Disclosure Items**
Statement of Financial Position	14
Statement of Financial Performance	11
Statement of Changes in Net Asset/Equity	5
Cash Flow Statement	9
Statement of Budget Performance	3
Notes to the Accounts	6
Total disclosure items	**48**

Step 4: Then, the draft index went through a Delphi opinion-seeking exercise with the expert panel, representing a range of stakeholder groups for the reliability and validity procedures (refer Table 4.5). Technically, the Delphi technique is a method to "solicit, collect, evaluate and tabulate independent opinion…from the experts…of which the results are based not only on the consensus of the end product, but a consensus of assumptions and uniform interpretations of the importance and effect of the data" (Tersine and Riggs 1976, 51-52). In this study, the majority of the Delphi panel members are qualified chartered accountants with sufficient knowledge and experience of local authorities' accounting practices and disclosure issues. Consistent with Hooks, Tooley, and Basnan (2012), the Delphi panel members were selected based on purposive instead of random, and their roles were to confirm and validate the items included in the disclosure index checklist.

Table 4.5: Proposed List of the Delphi Panel Members

Role	Description	Number of Panel Members
Government auditor	Auditor/top official of the NAD	1
External auditor	Partners/senior managers of the international and national audit firms	4
Government accountant	Senior accountant of the MLGH	1
Financial report preparer	Senior accountant of the DBKU	1

Prior studies (e.g. Coy and Dixon 2004; Ho and Taylor 2013; Subroto et al. 2014) have used the Delphi exercise as a mean to obtain a consensus to validate the index items. The selected participants were asked for their opinions concerning a specific issue for a set of rounds until some stability in the responses or consensus have been achieved (Coy and Dixon 2004). Also, the results of initial iterations could be modified in the subsequent iterations by each panel member based on the feedback received by other panel experts who lead a well-organised information (Hsu and Sandford 2007).

The minimum disclosure index instrument was further modified to incorporate the comments from the Delphi panel members, which included the addition of disclosure items and improvement to the information items. The Delphi panel's opinions were then incorporated to construct a complete set of disclosure index checklist. A list of 51 disclosure items was finalised, resulting in an addition of 3 disclosure items which was divided into 6 categories and 9 sub-categories. The study applied the concept of 'rule of thumb' by setting the threshold of 67% for retaining or eliminating a draft index as there is no standard principle in explaining the criteria for maintaining or removing items from the Delphi panel's opinion (Ali and Saidin 2016).

To avoid redundancy with other indices used in previous accounting studies, the self-constructed index was developed in this study known as the 'Accrual Accounting Disclosure Index of Sarawak Local Authorities (SLADI)'. The final disclosure index instrument for Sarawak local authorities is shown in Appendix 4.1.

4.6.3.2 Measurement of Dependent Variable

The second stage in measuring the extent of the disclosure of accrual accounting information in the SLA's annual financial statements involved scoring the disclosure index items. In other words, this study measures the presence of the disclosure items in the annual financial statements of individual SLA in each financial year from 2012 to 2015. The study does not cover the quality aspect of the disclosure. In doing so, financial statements and the accompanying reports are examined thoroughly to assess the existence of the disclosure items.

An unweighted approach by using a dichotomous score was adopted in determining the presence of accrual accounting information. A score of '1' is assigned if the annual financial statement discloses accrual accounting information, and '0' if it does not. Any disclosure item deemed non-relevant for the respective SLA, such item is classified as 'non-applicable' and to be ignored in the index computation. The maximum disclosure score for each SLA varies depending on the applicability and disclosure of the items in the annual financial statement for each year. The example of items considered as 'non-applicable' for some SLA which resulting in the nondisclosure in the annual financial statements are as follows: (i) Long-term borrowings, in the form of the Federal and State governments' loans; (ii) Investment in controlled entities, jointly controlled entities and associates; and (iii) Transfer of renewal fund.

The practice of not penalising the SLA for the non-relevant disclosure items was done because some items might not apply to them. In this thesis, the applicability of an item was determined by understanding the overall operation of the respective SLA through their annual financial statements as well as the Ordinances and Financial Regulations. This study also sought verification from the MLGH and a few SLA to avoid partialities and subjectivity elements in selecting the non-relevant items. Additionally, a thorough review of the whole set of audited financial statements was carried out to determine whether the disclosure items fell under nondisclosure or non-relevant items.

Although this approach might lead to subjectivity, this was desirable to ensure the relevancy of the disclosure items would apply to the respective SLA and to obtain the disclosure items that were within a reasonable limit. The inclusion of 'non-applicable' items would likely inflate the possible resulting bias (Raffournier 1995). The approach of filtering the 'non-applicable' items in the index computation might also provide a better disclosure assessment instead of following a stringent dichotomous approach (Cooke 1996) and might be consistent with prior disclosure studies (e.g. Wallace 1987; Ramli 2001).

Apart from that, the unweighted dichotomous index which consists of fewer subjectivity arguments, has been adopted in many empirical public sector accounting studies (e.g. Christiaens and Peteghem 2007; Caba-Pérez and López-Hernández 2009; Ismail and Abu Bakar 2011). A prior study by Robbins and Austin (1986) has also proven that the use of unweighted approach does not produce any significantly different results as compared to the compound disclosure index (weighted). The index items are unweighted demonstrating that all items in the disclosure instrument are of equally important (Stanley, Jennings and Mack 2008).

Therefore, the total accrual SLADI for individual SLA of the 104 annual financial statements in the sample is derived as the ratio of the Actual Disclosure Score of Relevant Item (ADSRI), divided by the Maximum Disclosure Score of Relevant Item (MDSRI) that each SLA is expected to disclose. The total accrual SLADI for each year is mathematically defined as follows:

The Actual Disclosure Score of Relevant Item (ADSRI) per SLA in each year is calculated as:

Where, ADSRI = Actual Disclosure Score of Relevant Item

D_{ri} = 1 if the information item (relevant) is disclosed;

D_{ri} = 0 if the information item (relevant) is not disclosed; and

m_j = maximum number of relevant items, which an SLA is expected to disclose.

$$\boxed{ADSRI = \sum_{i=1}^{m_j} D_{ri}}$$

Maximum Disclosure Score of Relevant Item (MDSRI) per SLA is expected to disclose in each year is stated as:

$$\boxed{\text{MDSRI} = n_j}$$

Where, MDSRI = Maximum Disclosure Score of Relevant Item

n_j = the total accrual accounting information item relevant to SLA *j*, ($n_j \leq 51$)

Therefore, the total Accrual Accounting Disclosure Index of Sarawak Local Authorities (SLADI) for each SLA is derived as follows:

$$\boxed{\text{SLADI} = \text{ADSRI} \div \text{MDSRI} \ (100\%)}$$

For comparability purposes among SLA, the SLADI for each year is converted into a percentage (100%). The SLA with higher disclosure score denotes the greater extent of the accrual accounting information disclosed in the annual financial statements. The researcher also conducted a pilot study to ensure the robustness of the disclosure index instrument developed in this thesis.

4.6.3.3 Pilot Testing of Disclosure Index Instrument

The pilot study was carried out encompassing one city council, one municipal council and two district councils from the financial years 2012 to 2014, of which the selection was made on a random basis. For the pilot testing, the researcher excluded 2015 annual financial statements as the audited reports for the entire twenty-six SLA were yet to be tabled before the Sarawak State Legislative Assembly. The consideration to exclude 2015 annual financial statements was also made because there was no substantive change made by the SLA to the audited reports as highlighted in subsection 4.6.2.

The pilot study of four councils, which pretested on 12 of the 104 annual financial statements, represented approximately one-tenth of the effective population. Consistent with Gordon et al. (2002), the pilot study pre-tested a 10% of the total population for the purpose of verifying the index instruments and confirming the scoring consistency. The pilot test result indicated that no amendment should be made to the final disclosure index instrument as the different tier of local authorities could generate various levels of the disclosure result. Table 4.6 below shows the amount of accrual accounting disclosure among the three levels of local authorities.

Table 4.6: Pilot Test Results for the Disclosure Level of Accrual Accounting

No.	Type of SLA	Disclosure Index Score (%)		
		2012	2013	2014
1	City 1	31.82	31.82	33.33
2	Municipal 1	36.17	36.17	34.78
3	District 1	31.82	31.82	31.82
4	District 2	33.33	33.33	33.33

4.6.4 Measurement of Independent Variables

This subsection discusses the measurement of independent variables. The independent variables consist of technology infrastructure, the size of local authorities, qualification of accountancy personnel, audit institution size, and regulations.

Technology infrastructure: The technology infrastructure is measured by the applicability of accrual accounting features designed in the accounting software that has been used by the twenty-six local authorities. The measurement was based on the examination of the manual procedures of the SLA's computerised accounting system, namely: eLA2[27], ILAIS[28], and SMART 2000[29]. A discussion was also held with the two senior system developers from SAINS to enable the researcher to thoroughly understand the functionalities of the three different sets of accounting software.

There are seven main systems that should be incorporated into the accounting software under accrual accounting system, namely: (i) financial accounting system (the sub-modules, among others, incorporate trust account, account payable, account receivable

[27] eLA2 (Electronic Local Authority version 2.0), launched in 2012, a revamp of a number of accounting systems, namely: ILAIS and SMART 2000 that have been used by the SLA since year 2000. The system is currently being developed in phases by SAINS for the coverage of the whole SLA. The project is led by the MLGH and the Information Communication Technology Unit of Sarawak Chief Minister's Department (ICTU). This information is obtained from SAINS.

[28] ILAIS (Integrated Local Authority Information System) was designed by SAINS and the system has been used by most of the City and Municipal councils since 2000. This information is obtained from SAINS.

[29] SMART 2000, an acronym of 'Sistem Maklumat Kerajaan Tempatan', is the accounting system developed by PANSAR Sdn Bhd, a Sarawak based private consultant and the system is still being used by a few district councils in Sarawak. This information is obtained from a senior accountant of the MLGH.

and property, plant and equipment account modules), (ii) rating and billing system, (iii) licencing system, (iv) compound system, (v) miscellaneous system, (vi) revenue posting system, and (vii) receipting system. Based on the discussion between the researcher and the two senior system developers from SAINS, all seven main systems should contain full criteria of accrual features for the system to qualify as an accrual-based accounting software. The approach of having mutual consensus on the understanding of an accrual-based accounting software was considered a unique measurement employed in this study which was further counter-validated by the senior accountant of MLGH.

This variable is measured by the percentage of the availability of accrual features designed in the modules and functionalities of the computerised system. For instance, a value of 100% is given if the accounting system is designed based on full accrual modules and functionalities, and 50% if the system is based on modified accrual modules and functionalities. Likewise, 0% is given if the accounting system is developed based on cash modules and functionalities. The percentage is then converted to a ratio of ‘1’, ‘0.5’ and ‘0’ accordingly.

The size of local authorities: As mentioned in subsection 4.5.2, the measurement for this continuous variable is the SLA’s revenue in the form of annual assessment rates which has a direct association with the number of assessed properties, and resources required in governing the local authorities. Thus, the use of assessment rates collection determines the size of local authorities. Consistent with Cook 1991, quoted in Hawashe (2014, 210), “size can be measured in a some different ways, and there is no overriding theoretical reason to select one rather than another”. In this study, total assessment rates for each SLA was extracted from audited financial statements from the years 2012 to 2015.

Qualification of accountancy personnel: Based on the previous empirical studies (e.g. Carpenter and Feroz 2001; Saleh and Pendlebury 2006), the increasing number of professionally qualified accounting personnel has great influence on the implementation of accounting reform. Hence, a value of ‘1’ is assigned if the respective SLA employed an account personnel with at least a Bachelor degree in accounting and the membership with professional accountancy bodies, and ‘0’ if otherwise.

Audit institution size: Previous empirical studies revealed that the audit institution size does not necessarily impart better disclosure level although smaller audit firms tend to accede to client demands, which might produce lower levels of disclosure (e.g. Copley 1991; Gordon et al. 2002). Nevertheless, in maintaining the firm’s status, the internationally renowned audit firms are pressured to provide higher quality audit which commensurate better disclosure level (Barros, Boubaker and Hamrouni 2013). This is in agreement with the institutional theory perspective. Therefore, a value of ‘1’ is allotted if the local authority is audited by one of the international audit firms. On the contrary, ‘0’ is assigned to each SLA if the annual financial statements is audited by the non-international audit firms.

Regulations: As discussed in subsection 4.5.5, the regulations are identified as one of the critical success factors not only for other developed countries but also the Malaysian government in moving towards accrual accounting. In the absence of the mandatory requirements of accrual accounting disclosure, two local authorities had adopted PERS in the preparation of their annual financial statements (refer subsection 1.2). Therefore, this thesis benchmarks PERS as the regulations variable. This consideration was taking into account the non-applicability of MPSAS for the SLA during the period studied. As such, regulations in this study are represented by a dummy variable, if the SLA’s annual financial statements for the year ended 2012, 2013, 2014 and 2015 are prepared based on PERS, it takes a value of ‘1’. Otherwise, it is rated as ‘0’.

A summary of the measurement of independent variables is depicted in Table 4.7.

Table 4.7: Summary of the Measurement of Independent Variables

Variable	Acronym	Measurement	Source of Information
Technology Infrastructure (H_1)	TI	A ratio of ‘1’ is given if the accounting system is designed based on full accrual functionalities, ‘0.5’ if the system is based on modified accrual functionalities, and ‘0’ if the system is based on cash functionalities.	Manual procedures of computerised accounting system provided by the SAINS.
Size of Local Authorities (H_2)	SZ	Natural logarithm of annual collection of assessment rates.	Annual financial statements from 2012 to 2015.
Qualification of Accountancy Personnel (H_3)	QP	Dummy variable with ‘1’ if at least a Bachelor degree in accounting with the membership of professional accountancy bodies, ‘0’ if otherwise.	Human resource database provided by the MLGH.
Audit Institution Size (H_4)	AI	Dummy variable with ‘1’ if the annual financial statement is audited by the international audit firms, ‘0’ if otherwise.	List of appointed external auditors provided by the NAD.
Regulations (H_5)	RG	Dummy variable with ‘1’ if annual financial statement is prepared based on the PERS[30], ‘0’ if otherwise.	Annual financial statements from 2012 to 2015.

4.6.5 Statistical Analysis Technique

This subsection is designed to achieve the second research objective, namely: To determine whether there is any significant association between the five SLA-specific determinants and the extent of the accrual accounting disclosure over the period of the study. There are three steps of data analysis involved in this study, namely: univariate, bivariate, and multivariate analysis. These three techniques are applied to provide a better understanding of the disclosures index data and test the relationship between dependent variable (the extent of the disclosures of accrual accounting information) and independent variables (a set of hypothesis developed in this study). In this study, data about the statistical test were analysed using the panel data analysis in Stata version 15 software.

[30] In the absence of accrual accounting guidelines, the SLA may adopt PERS as a disclosure basis for the preparation of annual financial statements. Refer to footnote no. 7 and section 1.2 of the chapter 1. Additionally, based on the official letter issued by the AGD dated 2nd October 2017, ref: ANM/SPP/P/2/75 Jld. 4(67), the mandatory adoption of MPSAS for the statutory bodies will take effect by the year 2020. Despite the non-mandatory requirements, the adoption of MPSAS is also extended to the local authorities for the presentation of the financial report as earlier as possible.

4.6.5.1 Univariate and Bivariate Analysis

The univariate analysis employed in this study involves a presentation of quantitative descriptions on the extent of disclosure of accrual accounting information. Among the descriptive statistics used are the measurements of central tendency (mean), median, size range (minimum and maximum), and dispersion (standard deviation). This information is useful in making general observations on the extent of accrual accounting disclosure across the local authorities in Sarawak in a meaningful way.

In this study, the bivariate analysis was performed to examine the association between the dependent variable (the extent of accrual accounting disclosure) and each of the independent variables. Therefore, a non-parametric test, Spearman's rank (Spearman's rho) correlation coefficient was conducted to describe how strong the two continuous or ordinal variables monotonically associated with each other. The Spearman correlation coefficient is suitably used in the measurement of one variable, whether it increases or decreases with another variable although the association between that two variables may not be linear or bivariate normal (Hintze 2007). The correlation results also assist in detecting multicollinearity problems between two variables.

The use of Spearman's rank correlation is based on a few advantages. Firstly, it alleviates any concerns about the non-normality on the measurement of the dependent variable (Hackston and Milne 1996). Secondly, the relationship between the two investigated variables is not affected by outliers, unequal variances, non-normality, and nonlinearities, unlike in the case of using the Pearson correlation (Hintze 2007). Lastly, the Spearman rank correlation generates approximately 91% efficiency as compared to the parametric Pearson's correlation (Seigal 1956, quoted in Ramli 2001, 175). Besides that, previous disclosure studies highlighted that by using similar data, the application of parametric test (Pearson correlation) computes the same results as a non-parametric test (Spearman's rank correlation) (Hossain, Tan and Adams 1994).

4.6.5.2 Multivariate Analysis

Multivariate analysis has been widely applied in the study of measuring simultaneous analysis of numerous variables (Hair et al. 2010). Technically, it refers to "a multitude of statistical methods to help one analyses potentially numerous interrelated measures considered together rather than separately from one another (Raykov and Marcoulides 2012, 2). In this study, multivariate analysis was deployed to analyse a single dependent (response, or outcome) variable with a set of many independent (predictor, or explanatory) variables.

Specifically, the multivariate regression in the form of panel data analysis which pools the data from the years 2012 to 2015 was conducted. The use of longitudinal panel data model by a combination of time series and cross-sectional, is to "capture different agents in space, as well as changes that emerge over time" (Inchausti 1997, 59). Other advantages of panel analysis include controlling for individual heterogeneity, giving more degree of freedom, and reducing multicollinearity (Baltagi 2005). More importantly, Baltagi (2005) highlights that by using panel analysis, the effects that are difficult to detect in pure-sectional or pure time-series data can be identified.

In this study, the Ramsey RESET test was performed to check the model specification. As stated by Brooks (2014), the Ramsey RESET test is a general test to test for misspecification of functional form and able to detect a variety of nonlinear structures in the study data. So, the Ramsey RESET test was conducted to measure whether the relationship between SLADI and the explanatory variables is linear or not. Alternatively, Link test was performed to check the validity of the model. According to Tejedo-Romero and de Araujo (2015), the predicted values will have no power if the model is quantified accordingly upon performing the Link test.

The *F* test, Breusch-Pagan Lagrange Multiplier test, and the Hausman specification test were employed since the data in this study is from panel data with time series and a cross-sectional dimension (Baltagi 2005; Wooldridge 2013; Hsiao 2014). The *F* test "serves as the basis for developing more robust interference procedures…and considered as a useful first and preliminary step to explore the source of sample variability" (Hsiao 2014, 24). In other words, the *F* test is used to measure the joint significance of Fixed Effects (FE) estimators of the individual effects which rejects the null hypothesis that indicates the FE model is better than the Pooled Ordinary Least Squares (POLS) model (Baltagi 2005). Next, the Breusch-Pagan Lagrange Multiplier test is employed to compare the POLS against Random Effects (RE) specification. If the result of *p*-value is less than 0.05, it leads to a conclusion that the RE model is more appropriate than the POLS. On the other hand, the Hausman test is used to gauge whether the individual effects are RE or FE models. The model is considered to favour FE estimator if the result of *p*-value reported less than 0.05.

Regarding statistical-wise, several diagnostic tests were performed to get the best model for this study in order to satisfy several assumptions underlying the multiple regression models (Hair et al. 2010). Firstly, a Shapiro-Wilk test was conducted to meet the assumption of normally distributed errors or residuals. Secondly, the study ran multicollinearity test by assessing the Variation Inflation Factor (VIF). Thirdly, the study performed both Breusch-Pagan/Cook-Weisberg test and White's test to meet the assumption of homoscedasticity. If both tests show contradict results, i.e. assumption of homoscedasticity is violated, a graphical method through plotting the residuals against fitted values is then conducted. Lastly, the study tested a Wooldridge test if any serial correlation problems exist. These diagnostic tests are essential to determine whether the study should apply a panel data approach with cluster-robust standard errors if for instance the assumptions of homoscedasticity and serial correlation are not met (Baltagi 2005; Torres-Reyna 2007).

The panel data model specification, which analyses the variables that influence the SLADI during the period from 2012 to 2015 is specified as follows:

$SLADI_{it}$	=	$\beta 0 + \beta_1 TI_{it} + \beta_2 LSZ_{it} + \beta_3 QP_{it} + \beta_4 AS_{it} + \beta_5 RG_{it} + \varepsilon_{it}$
Where:		
SLADI	=	Accrual accounting disclosure index of SLA's score
TI	=	Technology infrastructure
LSZ	=	Size of local authorities (natural log of assessment rates)
QP	=	Qualification of accountancy personnel
AS	=	Audit institution size
RG	=	Regulations
β	=	Regression model coefficients (parameters)
β0	=	Constant or intercept
ε_{it}	=	Error term
i	=	1,...,104
t	=	2012, 2013, 2014, and 2015

4.7 RESEARCH DESIGN (PHASE 2: QUALITATIVE)

The second phase of the study is designed to specifically explain the underlying requirements contributing to the transition and disclosure of the accrual accounting information in the SLA with regard to RQ3. For this phase, focus group interview which belongs to the branch of qualitative methods is employed to gather the opinions of the selected interviewees. Hence, focus group interview is used to complement the disclosure index approach and statistical analysis about RQ1 and RQ2 respectively.

Although the use of focus group in accounting research is not prevalent as other types of qualitative research methods (Agyemang, Awumbila and O'Dwyer 2009), there is an increasing trend of related accounting studies that applies focus group interview as a research technique (e.g. Mook and Quarter 2006; Neu 2006). Hamilton (2007) in her research study on understanding the developing professional identity of becoming a chartered accountant in Scotland acknowledges the usefulness of focus groups as the appropriate method of data collection. Similarly, Kober, Lee, and Ng (2010) strongly recommend the use of focus group interview for future research in obtaining deeper insights on the qualitative characteristics of the users and preparers of government financial reports during transitioning from cash to accrual system. On the other hand, Sutton and Arnold (2013) argue that the emergence of technological accounting challenges has stimulated the application of focus group method in accounting research.

4.7.1 Focus Group Interview and Justification

Krueger and Casey (2015, 2) define the focus group interview as "a carefully planned series of discussions on a defined area of interest in a permissive, non-threatening environment…with 5 to 10 people led by a skilled interviewer or moderator…with the aim of encouraging the participants to share perceptions and opinions". Therefore, the focused interview assists the basic purpose of "gathering qualitative data from individuals who have experienced some particular concrete situation, which serves as the focus of the interview" (Merton & Kendall 1946, quoted in Stewart and Shamdasani 2015, 9). Simply, focus group interview encompasses group interaction that is facilitated by a set of interview guide to obtain participant's perspectives about a particular topic (Putcha and Potter 2004; Barbour 2007).

There are several advantages of conducting the focus group interview. Fern (1982) argues that the results of focus group produce better information as compared to other types of the interview due to the synergism of idea during the session. Stewart and Shamdasani (2015) highlight numerous strengths of the focus group relative to other types of research such as shorter time of interview and cost-effective. More importantly, the participants in a group may feel secure to express their opinions spontaneously, thus trigger direct interaction and snowballing effect among the focus group members which consequently produce greater insights on one particular issue. However, Agyemang, Awumbila, and O'Dwyer (2009, 5-6) outline several conditions behind the success of focus group interview. Firstly, the selection of participants must take into consideration of their experiences which relate to the objective of the study. Secondly, the ideal number of group members depends on the diversity of the participants and research scale. Lastly, interview questions or topic of discussions must be designed cautiously to encourage active participation from the group members.

With this in mind, this study applies focus group interview as the vehicles to "promote self-disclosure among participants" (Krueger and Casey 2015, 4) by "providing insights into process" (Barbour 2007, 30) of transitioning from cash to accrual accounting in the context of SLA. By adopting the extended contingency theory developed by Ouda (2010), the focus group interview would enable the researcher to explore a detailed understanding of revealed issues and contradictions found in the analysis of results which relate to RQ1 and RQ2 respectively. This argument conforms to Barbour (2007) that says focus group is commonly deployed in the exploratory phase of mixed method studies.

Additionally, this study employs focus group interview by taking into account several factors, namely:

(i) Geographical and connectivity factors of the state of Sarawak which might take the researcher more than three months if the data collection was to be conducted through other types of methods, such as one-to-one interview;

(ii) The background of the respondents that possesses certain similar characteristics (Krueger and Casey 2015);

(iii) The time and financial resources available for the research;

(iv) The law of diminishing returns in selecting the sample size of the focus group participants (Ritchie et al. 2013); and

(v) The interviewees gathered in a well-structured group may feel secure to participate in the discussion (Stewart and Shamdasani 2015) because certain points of discussion may be subjected to the sensitivity issues and legal requirements as the majority of them are bound to the 'Civil Service Code of Conducts'.

4.7.2 Composition and Selection of the Focus Group Member

Identification of potential interviewees for this research involves various steps. The rigorous selection is to ensure the participants represent the views of other SLA and general condition of the financial management context in Sarawak. Therefore, several efforts are taken by the researcher on the basis of selecting the focus group interviewees.

Firstly, the approach used by the researcher in identifying homogeneity characteristics among them is through analysing the presentation of annual financial statements of RQ1. This preliminary step is important to achieve something in common by ensuring that the participants share at least one similar characteristics but with appropriate divergent of opinions (Barbour 2007; Krueger and Casey 2015).

Secondly, the composition of focus group interview from the selected SLA was chosen based on the type of SLA. In this regard, the third party opinion was sought from the senior accountant of the MLGH due to his important roles and vast knowledge in the context of the SLA. As such, the invitations to participate in the focus group were sent to the Head of Finance Division from three city councils, two municipal councils and two district councils respectively based on purposeful sampling. The study adopts theoretical or purposeful sampling as it is "concerned with constructing a sample…which is meaningful theoretically and empirically, because it builds in certain characteristics or criteria which help to develop and test the theory or arguments" (Mason 2002, 124). Due to this, only the councils who meet pre-determined criteria were selected for the focus group interview because they might "provide access in an interpretive sense to something" (Mason 2002, 134). Based on the researcher's experience as an insider in the past, the Head of Finance Divisions from the seven selected councils have more reliable sources of issues regarding the

SLA's financial reporting and disclosure practices which are directly responsible for the preparation of the annual financial statements. Although some contrast of opinions might occur among interviewees, focus group consists of sufficient variation among members and the organisational background is likely to provide rich data and lively discussion (Barbour 2007).

The interview proceeding was also participated by a group of experts from the NAD, SAINS, the managing partner of Idris Ibrahim & Co. (audit firm), and a senior accountant from the MLGH in which their inputs in the discussion would also be counted in the study analysis. Such versatility of having participants other than the SLA could provide detailed descriptive information and elaborate some factual issues that the moderator may not be as knowledgeable as the experts (Stewart and Shamdasani 2015), thus validating the responses aired by the SLA. In this regard, the involvement of the legitimate experts is important by drawing on account of their important role as the policy driver and system provider which may then facilitate the transition from cash to accrual accounting. On the other hand, the selection of Idris Ibrahim & Co. (audit firm) was due to the consideration that the firm has vast experience in auditing the various levels of local authorities in Sarawak since 1996.

Thirdly, a discussion was also held with the Director and senior officials of the NAD of Sarawak region. The purpose of conducting the discussion is to obtain a high-level information on the audit findings of the SLA about the financial statements, performance and financial management (accountability index). In this context, the researcher was also provided with the Auditor General's Report for the years 2012, 2013 and 2014. All these information led to the justification of selecting purposeful sampling for the focus group interview which could give the best information to achieve the objectives of the study (Kumar 2014).

Fourthly, to obtain a balanced and broad understanding of the financial management of the SLA, a preliminary discussion was also held with the two senior officials from SAINS. The two senior officials provided updated information on the current issues relating to the technical ability of the accounting system used by the seven selected local authorities for the focus group interview.

From the above explanation, the composition and selection of focus group members include a good blend and diverse characteristics which represent the various levels of local authorities.

4.7.3 Planning and Conducting the Focus Group Interview

The processes involved in collecting data under the qualitative phase are as follows:

Step 1: *Approval from the Authorities*
Prior to identifying the interviewees, an official approval was firstly sought from the Permanent Secretary of the MLGH to conduct the focus group interview which involved a few selected local authorities. A formal invitation was also extended to the respective government departments, SAINS and the managing partner of Idris Ibrahim & Co. (audit firm).

Step 2: *Meeting date, time, and location*
Once the interviewees were identified, a selection of the date, time and location were arranged with the assistance of the senior accountant from the MLGH. The arrangement was made to ensure the proposed interview date did not conflict with other government's official functions. In this regard, one of the SLA involved in the focus group meeting approved the utilisation of the meeting room and facilities, such as desktop, digital voice recorder and projector for the interview purposes.

Step 3: *Personal contacts with potential participants*
Once the interview date was finalised, a formal invitation followed by a telephone call was made to the potential participants. In this process, the invitation for five local authorities was managed by the MLGH. Communication between the researcher and the senior accountant of the MLGH was done on a frequent basis to ensure the participations of the interviewees were confirmed. On the other hand, the invitations for two local authorities, namely: DBKU and MBKS, as well as the group of experts, were conducted by the researcher, either via email or courtesy call. Consistent with Krueger and Casey (2015), all communications are made at least a month before the focus group session to enable the participants to arrange their official schedule accordingly.

Step 4: *Personalised confirmation letter*

Upon the agreement of the participants to participate in the focus group interview, the researcher sent four documents via either registered mail or email approximately a week before the interview was conducted. These items are: (i) participation information statement, (ii) consent form, (iii) interview guide, and (iv) disclosure index checklist. All these documents were sent in advance to the participants so that they would be able to comprehend the objectives of the meeting as well as to ensure that the ethical research was conducted properly.

Step 5: *Reminder phone contact*

As suggested by Krueger and Casey (2015), the phone contacts at least a day before the focus group session is conducted is essential to remind the attending participants. In this study, an extra caution was taken by making a phone call, at least, three days before the interview.

Step 6: *Conducting the interview*

Before the interview session began, all interviewees were ensured to have read the participation information statement and consent form. The procedure is done to ensure the anonymity and privacy of participants are safeguarded in creating an openness's discussion (Stewart and Shamdasani 2015). Additionally, some information divulged by the participants might also subject to the legal requirements and confidentialities which needed to be addressed at the very beginning. All the interviewees gave full permission for the researcher to tape-record the interview at the time.

A copy of the interview guide was distributed to the interviewees. The interview guide was also displayed on the projector screen to ensure the interviewees comprehend the subject matter and follow the flow of the interview accordingly. A list of names and the agencies that they represent were provided corresponding to the seating arrangement to build greater rapport and sense of group cohesiveness with the focus group participants (Stewart and Shamdasani 2015). Refreshments were also provided during the focus group session.

Before discussing the main scope of the focus group interview, the session started with the presentation of the preliminary disclosure index results which covers the annual financial statements for the year ended 2012 until 2014. This approach is consistent with a study conducted by Abu Bakar (2013) which allows feedbacks from the interviewee about the total disclosure scores of each SLA, thus validating the results of RQ1. Similar to Abu Bakar (2013), the study received positive comments from the interviewees, specifically on the insights of the accounting treatment in the preparation of the annual financial statements and the disclosure index instrument, thus, implying the acceptance of the index results. Subsequently, the discussion was followed by the main theme of the interview, i.e. the prescriptive model of the transition towards accrual accounting.

The interview lasted for about two and a half hours, which is more than the initial duration of two hours set by the researcher. The extra duration was to allow the discussion to flow freely without limiting the number of frequency interviewees responding to each question being asked. The interviewees were enthusiasts, where each member of the focus group participated in the discussion by imparting their own experiences and values as if the researcher was an insider to them. In some part, the participants sought advice from the researcher, inevitably leading to contributing to the discussion. The researcher was aware of the contribution but the researcher tried to "avoid offering opinions and substantive comments" (Berg 2004, 136) because the input might have a slight impact to the SLA in preparing for the transition towards accrual accounting.

The researcher also acknowledged the difficulty of controlling the dominating interviewee and encouraged the passive focus group member to participate (Berg 2004). Somehow, it was still manageable. In some specific topics, a few interviewees dominated the proceeding as the inputs given demonstrate their roles, experiences and exposures in one particular area. Despite all these, it stimulated a synergistic effect during the discussion (Stewart and Shamdasani 2015), in which "one group member reacts to comment made by another…resulting the interactions among and between group members" (Berg 2004, 124). The researcher anticipated this beforehand based on the earlier discussion with the MLGH's senior accountant. This situation offered an advantage of having focus group as compared to the typical face-to-face and single interviewing. As Rubin and Rubin, quoted in Berg (2004, 127) enlighten:

> In a focus group, the goal is to let people spark off one another, suggesting dimensions and nuances of the original problem that any one individual might not have thought of. Sometimes, a totally different understanding of a problem emerges from the group discussion.

4.7.4 Ethical Clearance for Focus Group Interview

As this research involved human participants, the researcher is bound to adhere to the appropriate ethical requirements as stipulated by Curtin University. Furthermore, the researcher, being a civil servant is also subjected to the principles of privacy and confidentiality as well as a code of conduct on the ethical aspects that is being applied to all government officials in Malaysia.

The thesis was initially approved through the low-risk ethics approval process at Curtin University in August 2015 and subsequently obtained an amendment approval in April 2016 with the ethics amendment approval number of RSDE-44-15/AR01 before the commencement of the focus group exercise.

4.7.5 Pilot Testing and the Design of Interview Guide

For this study, the pilot interview was conducted with the senior accountants of the MLGH, DBKU and BDA who are well-versed in the financial management of the SLA. Their senior position in the respective agencies made them the most qualified officials to discuss the current state of financial reporting and disclosure practices as well as policy matters concerning the SLA. The pilot interview was revolved around the Ouda's prescriptive model in which the researcher assessed where the SLA fit in the model or might consider adopting full accrual system. This exercise is deemed important to ensure all relevant questions are being incorporated in the interview process, assist in refining data collection (Remenyi et al. 1998), and examine the feasibility of the research undertaken.

The role of the senior accountant of the MLGH was also sought to validate the interview guide. The design of the questionnaire for the interview guide was done carefully to ensure it was linked back to the theme of RQ3 and related to the previous accounting and disclosure studies. Preliminary findings of RQ1 and RQ2, apart from the series of discussion with the senior officials of the NAD helped enlightening and guiding the interview. Also, several key factors such as the participants' official position in their respective organisations, educational background, and cultural characteristics were also being considered. The interview guide was also presented to the researcher's supervisors for their screening and constructive feedback.

The researcher adopted open-ended to the semi-structured questionnaire as it provided flexibility for asking questions within the predetermined inquiry subjects, which in turn offered an in-depth understanding regarding the research problems that set to be addressed by RQ3. In the context of this thesis, the open-ended to the semi-structured questionnaire is necessary to ensure the interview findings are confined to the proven framework with some minor modifications. This approach allows the researcher to control the time, content and sequence of the interview (Saleh 2002) as probes and prompts were also used to obtain a deeper response from the interviewees. Somehow, the approach is slightly different from any typical focus group interviews, which revolves around a purely open-ended in designing the questions (Krueger and Casey 2015).

In this regard, the interview guide was devised to suit the prescriptive model of transition to accrual accounting (Ouda 2010) by taking into account of the SLA's environmental context. The researcher asked slightly different questions to enrich the extraction of information from the interviewees and drew themes that might not have been thought before. The guide was also built within possible institutional pressures (formal and informal) which could help to explain the transition towards accrual accounting. The structure of the interview guide allows the researcher to "build a conversation within a particular subject area, and to establish a conversational style but with the focus on a particular subject that has been predetermined" within the limited time available (Patton 2002, 343).

The interview guide was set in English to avert any mistranslation of specific accounting terms as the interviewees were also not expected to encounter any problems in comprehending the English language. The interview guide was segregated into two parts, namely: the general and primary interview questions, i.e. from general to specific topic (an interview guide is attached in Appendix 4.4). Question 1 to 3 of the general questions were designed to obtain basic information and gauge the views of the interviewees on the current accounting practices of the SLA, particularly financial reporting and disclosure practices. The first three questions were designed to build the confidence of the interviewees to ease them to answer and participate in the interview session freely. Question 4 and 5 of the general questions were formulated based on the theme of the first two research questions which assisted the researcher in the interpretation of the quantitative results.

Meanwhile, the primary interview questions focus on the qualitative part of the current research, i.e. exploring the requirements and the extent of influences that contribute to the transition and disclosure of the accrual accounting information in the SLA, which was guided based on the framework developed by Ouda (2010). The primary interview questions were segregated into three main phases, namely: Reform Decision-Making: Phase I, Transition Framework: Phase II, and Post-Transition: Phase III. For each phase, it contained a few sets of questions which covered almost all requirements of the descriptive model to ensure the relevant factors in the whole reform process were well-covered. Some new requirements were also incorporated in the interview guide to suit the environmental context of the SLA based on the earlier discussions with the officials from the NAD, MLGH and SAINS and the pilot interview was conducted with the MLGH, DBKU and BDA.

4.7.6 Interview Data Analysis

The focus group was conducted in mix-languages. However, the English language was predominantly communicated during the interview, but in some cases, the interviewees responded in their local languages or native dialects. The dual languages communicated during the interview did not affect the transcribing process as it permits the interviewees to convey the message clearly, thus meeting the research objective. Data from the focus group interview were documented in the form of field notes and tape-recorded. The researcher used two units of digital voice recorder to ensure the recordings were clear from less-effects noises and other background distractions. The researcher also took field notes on the important points emphasised by the interviewees.

The interview was transcribed verbatim on the following day to provide a fresh recall of the interview and it took approximately a month to complete, after taking into consideration the word-for-word transcription and editing the structural and grammatical errors. The interview was carefully listened at least twice by playing back both the voice recorders subject to its clarity. This approach was taken into consideration of the needs to translate the interview from the local dialect to English language to ensure its accuracy and meaning, particularly on the specific accounting terminologies. Additionally, the researcher took the effort to repeat the conversation recorded as the "interviewees responses are subject to the common problems of bias, poor recall, and poor or inaccurate articulation" (Yin 2014, 113), thus generating a reliable transcript for the analysis. The transcription, in Microsoft Word document, was then kept in both hard and soft copies. The field notes were also compared with the transcribed conversations and analysed carefully to identify common themes and patterns.

Consistent with the mixed method approach in other disclosure studies (e.g. Joseph 2010; Hawashe 2014), this study adopts content analysis to identify the main themes, by way of analysing the focus group data (Silverman 2014). The content analysis refers to "any qualitative data reduction and sense-making effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings (Patton 2002). While, Kumar (2014, 318) defines content analysis as "analysing the content of interviews or observational field notes in order to identify the main themes that emerge from the responses given by respondents or the observation notes".

Therefore, the content analysis was facilitated by a qualitative software, ATLAS.ti version 8.0 to code and index the themes from the transcriptions for easy retrieval, storage and systematic overview although the amount of data were deemed moderate. Simply, the deployment of a computer program such as ATLAS.ti assists the researcher to locate the main themes from the text of the focus group interview based on the content analysis approach (Kumar 2014).

In analysing the contents of focus group interview, the researcher adopted the process as suggested by Kumar (2014, 318), which is summarised as follows:

Step 1: *Identify the main themes*

The main themes were brought up from the Ouda's prescriptive model and issues identified in Chapter 3 of the literature review. Some of the themes were generated from the transcripts through analysing the responses from the interviewees based on the sequence of questions in the interview guide. In this process, the selection of themes has to be assigned and reassigned to represent the accurate meaning expressed by the interviewees based on the comparison with the incoming data (Corbin and Strauss 2015). Therefore, the researcher firstly applied the deductive approach by validating or extending Ouda's prescriptive model and reviewing a literature based on previous related studies, followed by the inductive analysis through discovering the themes at the data afresh (Patton 2002).

Step 2: *Assign codes to the main themes*

According to Smith and Taffler (2000, 627), there are two methods of content analysis. The first method is known as 'form orientated (objective) analysis', which involves routine counting of words or concrete references. Meanwhile, the second method focuses on the analysis of the underlying themes in the texts under investigation, known as 'meaning orientated (subjective) analysis'. Therefore, the code assignment, which "denoting concepts to stand for meaning" (Corbin and Strauss 2015, 57) was based on the counting of words or themes extracted from the interview as identified in Step 1. In contrast to Joseph (2010), who solely deployed the 'form oriented' approach, this study conducted both methods of the content analysis as mentioned above. In addition to the counting of words, the judgement on certain messages expressed by the interviewees needed to be exercised to analyse the thematic content and meaning despite its difficulties.

The SLA's financial management was something that related closely to the researcher. In fact, the researcher worked from the interpretivist stand to explore the underlying meaning that was clustered in the same theme conveyed by the interviewees. Previously, the researcher was trained as an insider, a chartered accountant in one of the SLA for several years. This consideration impart some implications on this research, particularly in illuminating the views of the interviewees, though in many cases, the focus group researcher is an outsider of the particular organisation being investigated (Silverman 2014). The researcher attempted to analyse the thematic content by immersing and interpreting the transcript beyond its literal context (Silverman 2014). The researcher's industry knowledge and professional experience contributed some advantages in understanding the significant data promptly and discerning connections between concepts (Corbin and Strauss 2015).

Step 3: *Classify responses under the main themes*

Through the application of ATLAS.ti, all relevant contents of the interview were classified under the different themes as discussed in Step 1 and Step 2. By using ATLAS.ti tools, each main theme was symbolised by a code group and an individual code could belong to more than one particular code group.

Step 4: *Integrate themes and responses into the text of the report*

The final step is to integrate the themes and responses into the text of the report, which is presented in Chapter 6 of this study. Other than the presentation of the themes occurrence, the verbatim responses from the interviewees are also discussed in that chapter.

4.7.7 Validity and Reliability Issues

In ensuring the quality and trustworthiness of the research specifically the data generated from the interview, it is pertinent to address the issue of validity and reliability. Many notable scholars have discussed the concept of validity and reliability. According to Silverman (2014, 285) validity denotes "the credibility of our interpretation". Likewise, Kumar (2014, 218) refers validity as "the ability of a research instrument to demonstrate that it is finding out what you designed it to". Validity is also associated with the notion of credibility, trustworthiness and authenticity (Creswell and Miller 2000). Due to this, the information obtained from qualitative research needs to be validated to ensure its accuracy (Creswell and Clark 2011). In addition to that, Kumar (2014, 218) defines reliability as the "consistency in its findings when used repeatedly". Silverman 2005, quoted in Corbin and Strauss (2015, 342) states that reliability "can be achieved by tabulating categories that a researcher chooses, and also by being certain that when transcribing interviews, all aspects of data are transcribed, even the most minute".

There are many strategies that can be employed to maintain validity and reliability in the qualitative research (e.g. Kumar 2014; Yin 2014; Corbin and Strauss 2015). Nevertheless, Creswell and Clark (2011) argue that more focus should be placed on validity than reliability as qualitative validity comes from the analysis procedures of the researcher, based on information gleaned while visiting with participants, and from external reviewers. In line with this, the researcher adopted several measures to achieve the quality of the research which are explained as follows:

Member checking

The transcript and research findings were sent to the interviewees for checking to ensure the information and narrative account are accurate and credible which consequently ensuring the validity procedure being cascaded down to the interviewees (Creswell and Miller 2000). This research has undergone a member check, in which ten interviewees responded, making a response percentage of 77% with two interviewees contributed discrepant information for the minor correction of the transcript. The high percentage of response is reasonable to assume that it represents the whole sampling of focus group members, thus meeting the criteria of validity.

Triangulation

This procedure requires data validation through finding the convergence or common code or theme across data sources, theories and methods (Creswell and Miller 2000). In this respect, the code and theme are drawn from the Ouda's prescriptive model and previous related studies.

Disconfirming evidence

According to Creswell and Clark (2011, 212), disconfirming evidence, which closely relates to triangulation process "is information that presents a perspective that contrary to the one indicated by the established evidence". In this study, the initially established themes were compared with the actual transcript to confirm the accuracy of the data analysis.

Peer debriefing

The researcher sought assistance from the graduate student in the same faculty to provide contradictory evidence and counter-check the qualitative data, thus to enhance the credibility of the research.

Researcher reflexivity

Technically, researcher reflexivity refers to the "validity procedure, in which the researchers self-disclose their assumptions, beliefs, and biases…early in the research process to allow readers to understand their positions, and then to bracket or suspend those researcher biases as the study proceeds" (Creswell and Miller 2000). As mentioned in the earlier part of this chapter, the researcher was an insider to the SLA, having a position as the Head of Finance Division for several years which positively influenced the process of data discovery. As a previous insider, it facilitates developing the bigger picture of the research, and during the focus group session, the interviewees spoke as if the researcher was an insider to them. This scenario was witnessed in some parts whereby the interviewees disclosed the internal work process without explaining the terminology, thus treating the researcher "as anything other than someone who understood their world" (Hamilton 2007, 76).

Prolonged engagement in the field

This prolonged engagement requires the researcher to be in the research site over the longer period to establish good relations with the participants, thus making it easy to obtain the information, apart from facilitating the comparison of the observational made and interview data (Creswell and Miller 2000). In the effort to build a better perspective on the accounting issues of the SLA, the researcher approached some of the key officials from various government departments, SAINS and a few local authorities as early as three months after commencing the research.

Audit trail

For the provision of audit trail, the researcher employed a few strategies for the maintenance of the research documentation. For instance, the interview transcription was transferred from the two digital tape recorders to the pen drive and computer's hard drive as a backup. A data collection chronology was also kept in both hardcopies and softcopies. The process taken during data collection and analysis was also documented in a series of steps as likely (Yin 2014).

In addition, a few approaches were also done to improve the validity and reliability of qualitative data. These approaches included the selection of interviewees based on their position, experience and expertise in the financial management of the SLA as well as covering the respondents from the organisations that meet the pre-determined criteria.

4.8 SUMMARY

This chapter outlines in details the research methodology, methods and hypotheses development employed in answering the three research questions. This chapter discusses the research framework, research paradigm and methods, hypotheses development, and research design used for both quantitative and qualitative approaches. Specifically, the study adopts pragmatism paradigm as the research philosophy in working with the mixed method approaches to enable a deeper understanding in the field of government accounting disclosure. Phenomenally, it allows the researcher not only analysing the quantitative output of the first two research objectives but also immersing in the extent of influences towards the disclosure of accrual accounting information in the SLA, through qualitative method.

The chapter presents the development of self-developed disclosure index, which was further verified by the Delphi panel members. The extent of disclosure of accrual accounting information was determined by analysing the whole annual financial statement of twenty-six SLA from 2012 to 2015. Next, the chapter discusses the development of five hypotheses to be tested using various statistical analysis tools. All the condition and assumptions of longitudinal panel data model were checked and performed. Finally, this chapter justifies the selection of the focus group interview and the targeted study sample addressed in RQ3. Several measures were undertaken to ensure the data analysis of the interview achieves the quality of research.

CHAPTER 5

THE LEVEL AND DETERMINANTS OF ACCRUAL ACCOUNTING DISCLOSURE

5.1 INTRODUCTION

Research methodology, methods and hypothesis development in Chapter 4 are designed to explain how the three research questions are addressed in the thesis. The methods used for this thesis include disclosure index approach, statistical analysis and focus group interview. This chapter specifically designs to answer the first two research questions as follows:

> RQ1: What is the extent of the disclosure of accrual accounting information in the Sarawak local authorities' annual financial statements?
>
> RQ2: Do technology infrastructure, the size of local authorities, qualification of accountancy personnel, audit institution size, and regulations have significant associations with the disclosure of accrual accounting information in the Sarawak local authorities' annual financial statements?

This chapter is organised as follows: Section 5.2 begins with the background of data collection; Section 5.3 deals with the descriptive information of disclosure index results and its development over a period of four years; Section 5.4 presents the descriptive statistics for the extent of accrual accounting information by category; Section 5.5 compares the results of RQ1 with other relevant studies; Section 5.2 to section 5.5 addresses the first research objective, i.e. to measure the extent of the accrual accounting disclosure in the SLA's annual financial statements from 2012 to 2015. The subsequent section 5.6 discusses the findings of the univariate, bivariate and multivariate analysis. Next, Section 5.7 highlights the association between the findings of RQ2 and the institutional theory. Both sections determine whether there is any significant association between the five SLA-specific determinants and the extent of the accrual accounting disclosure over the period of the study; and Section 5.8 provides a summary of the chapter.

5.2 BACKGROUND OF DATA COLLECTION

A total of 104 annual financial statements from 2012 to 2015 were successfully collected from all SLA over a period of approximately twelve months which represented the whole population of the study. The audited financial statements were directly obtained from the Head of Finance Division under the respective SLA and the senior accountant of the MLGH.

Furthermore, the Delphi opinion-seeking exercise, with the purpose of obtaining a consensus to validate the disclosure index items resulted in the participation rate of 86%, justifies the robustness of the minimum disclosure index instrument for the SLA. Seven expert panels, representing the NAD, the MLGH, the SLA, and four audit firms were invited to participate in the Delphi opinion-seeking exercise to validate the general framework of the index. Nonetheless, there was only one local based audit firm which did not reply to the request made within the stipulated time.

The process of obtaining a complete response from the Delphi panel members took the researcher approximately five months, which began in April 2016 and completed in August 2016 (refer Appendix 5.1 and 5.2 on the reply letters from the Delphi panel members). The composition of the Delphi panel members is presented in Table 5.1:

Table 5.1: List of the Participated Delphi Panel Members

Organisation	**Description of Panel Member**	**Number of Panel Members**
NAD	Government auditor	1
Crowe Horwath, Chartered Accountants (M)	Partner of the international audit firm and member of Crowe Horwath International	1
Idris Ibrahim & Co., Chartered Accountants (M)	Managing partner of the national audit firm	1
Khaidier & Co., Chartered Accountants (M)	Managing partner of the national audit firm	1
MLGH	Senior accountant	1
SLA	Senior accountant	1

In the context of data collection for RQ2, various organisations were contacted for assistance. Manual procedures of the SLA's computerised accounting system were obtained from SAINS. As mentioned in Chapter 4, a briefing on the computerised accounting system used by the SLA was also given by the two system developers of SAINS. As for the academic and professional qualification of the accountancy personnel, the information was provided by the Senior Administrative Officer of the MLGH and the respective SLA. The NAD provided a list of audit firm involved in the financial auditing of the SLA. Other information regarding RQ2 were extracted from the annual financial statements. The process of data collection for RQ2 commencing from the issuance of request letter until the accessibility of the information took the researcher approximately nine months from Jun 2015 to March 2016.

5.3 THE EXTENT OF ACCRUAL ACCOUNTING DISCLOSURE

This section addresses RQ1 on the extent of the disclosure of accrual accounting information in the SLA's annual financial statements by employing a disclosure index approach. The discussion starts with the overall accrual accounting disclosure score per SLA for four financial years (2012-2015) and is then followed by the descriptive statistics for each category of the annual financial statements. This section also presents the distribution scores and development in the extent of SLADI.

5.3.1 Disclosure Index Results

Arising from the Delphi opinion-seeking exercise, the final disclosure index instrument comprising 51 disclosure items was constructed and the dichotomous procedure was performed to obtain the SLA's disclosure score. As discussed in Section 4.6.3.1, the index instrument was divided into six categories and nine subcategories, which forms final disclosure index instrument for the SLA under accrual accounting principle. Two categories, namely: Statement of Financial Position and Statement of Financial Performance were further expanded to incorporate the information items to provide a clearer understanding of the accrual accounting treatment (details are provided in Appendix 4.1). Comparatively, the disclosure index varies from one study to another and between the countries. The index for public sector is smaller than the private sector which has about 70 items (Ali and Saidin 2016). For instance, Pina, Torres, and Yetano (2009) in their study of 51 local governments belonging to 20 EU countries developed an equal weighting of only 25 accrual disclosure index.

As mentioned in Chapter 4, the dichotomous scoring 'one' is awarded if an SLA discloses an accrual accounting item and 'zero' if no disclosure is reported. Subsequently, any non-applicable disclosure items is excluded in the index computation. In this regard, the relevant maximum disclosure was reported at 47 items and only 42 items were evaluated for the relevant minimum points. The majority of the SLA reported relevant disclosure of 44 items. In summary, total index score (denoting dependent variable) was calculated for the individual SLA for each year by the sum of actual disclosure score awarded to the relevant item divided by the sum of relevant items. SLADI for each SLA over the period of four years is displayed in Table 5.2.

Table 5.2: Accrual Accounting Disclosure Score per SLA

No.	SLA	MDSRI				SLADI %*				Pooled SLADI %
		2012	2013	2014	2015	2012	2013	2014	2015	2012-2015
1.	**C1**	46	46	46	46	89.13	89.13	89.13	89.13	89.13
2.	**C2**	46	46	45	45	30.43	30.43	31.11	31.11	30.77
3.	**C3**	44	44	45	44	31.82	31.82	33.33	31.82	32.20
4.	**M1**	42	42	43	42	88.10	88.10	88.37	88.10	88.16
5.	**M2**	47	47	46	46	36.17	36.17	34.78	34.78	35.48
6.	**M3**	46	46	45	45	32.61	32.61	31.11	31.11	31.86
7.	**D1**	44	44	44	44	31.82	31.82	31.82	31.82	31.82
8.	**D2**	44	44	44	44	31.82	31.82	31.82	31.82	31.82
9.	**D3**	44	44	44	44	31.82	31.82	31.82	31.82	31.82
10.	**D4**	43	44	44	44	30.23	31.82	31.82	31.82	31.42
11.	**D5**	43	43	43	43	30.23	30.23	30.23	30.23	30.23
12.	**D6**	44	44	44	44	31.82	31.82	31.82	31.82	31.82
13.	**D7**	44	44	44	44	31.82	31.82	31.82	31.82	31.82
14.	**D8**	44	44	44	45	31.82	31.82	31.82	33.33	32.20
15.	**D9**	44	44	44	45	31.82	31.82	31.82	33.33	32.20
16.	**D10**	44	44	44	44	31.82	31.82	31.82	31.82	31.82
17.	**D11**	44	44	44	44	31.82	31.82	31.82	31.82	31.82
18.	**D12**	45	44	44	44	33.33	31.82	31.82	31.82	32.20
19.	**D13**	44	44	44	44	31.82	31.82	31.82	31.82	31.82
20.	**D14**	44	44	44	44	31.82	31.82	31.82	31.82	31.82
21.	**D15**	44	44	44	44	31.82	31.82	31.82	31.82	31.82
22.	**D16**	45	45	45	45	33.33	33.33	33.33	33.33	33.33
23.	**D17**	44	45	45	44	31.82	33.33	33.33	31.82	32.58
24.	**D18**	44	44	44	44	31.82	31.82	31.82	31.82	31.82
25.	**D19**	44	44	44	44	31.82	31.82	31.82	31.82	31.82
26.	**D20**	44	44	44	44	31.82	31.82	31.82	31.82	31.82
Total						**36.33**	**36.39**	**36.37**	**36.36**	**36.36**

* SLADI% = (ADSRI / MDSRI) x 100%, where SLADI (Accrual Accounting Disclosure Index of Sarawak Local Authorities), ADSRI (Actual Disclosure Score of Relevant Item), and MDSRI (Maximum Disclosure Score of Relevant Items).

** Category of SLA: C- city council, M- municipal council, and D- district council (refer Appendix 2.2 for the Coding List of Sarawak Local Authorities).

Table 5.2 shows that the highest mean SLADI score over the period of four years was 89.13% achieved by C1, and followed by M1 with a mean of 88.16%. On the other hand, the lowest scoring index over the period of four years was reported by D5 with a mean of 30.23%. It is interesting to note that both local authorities with the highest and lowest scoring were from the category of city and district councils. Remarkably, thirteen district councils achieved the same disclosure score of 31.82%. As shown in the table, only two local authorities scored over 88% during the period under study which indicates that their annual financial statements were prepared at least under modified accrual basis. In contrast, the remaining twenty-four local authorities only reported a mean score from 30.23% to 35.48%, suggesting a lower level of accrual accounting disclosure. On average, the total SLADI score for the whole SLA over the four years was 36.36%, suggesting that low achievement of accrual disclosure.

The disclosure index results indicate that the financial management transformation that currently occurred at the Federal and State governments impart little impact on the disclosure practices of SLA. The results also indicate that the transition towards accrual accounting is still far from being implemented unless a comprehensive transition framework is available for the reference of the SLA. In short, the results support the previous study by Ernst & Young (2009) that the majority of the SLA are still practising modified cash basis for the disclosure of annual financial statements.

Table 5.3: Descriptive Statistics of SLADI (%) based on Type of Local Authority

Council	Mean	Median	Minimum	Maximum	Standard Deviation
City	50.70	31.82	30.43	89.13	28.39
Municipal	51.83	35.48	31.11	88.37	26.89
District	31.89	31.82	30.23	33.33	0.64

Table 5.3 shows the descriptive statistics of SLADI. The SLADI mean for the city and municipal councils across the four years was approximately 51%. The mean score as a central tendency measure for the district council was only at 31.89%. On the other hand, the median values were 31.82% respectively for the city and district councils, and the municipal council stood at 35.48%. The extent of accrual accounting disclosure in the SLA's annual financial statements was widely dispersed as the difference

between the maximum and the minimum disclosure levels were about 58.90%. For the city and municipal councils, the range of accrual items was approximately between 30% and 89%, with the district council achieved minimum and maximum at 30.23% and 33.33% respectively that showed the least accrual disclosure.

The measure of variability as indicated by the standard deviation was 28.39% and 26.89% respectively for the city and municipal councils which denoted a mediocre dispersion in the total accrual disclosure. In contrast, the district council achieved a standard deviation of 0.64%. As mentioned in Chapter 2, the above analysis concurs with the recommendation of the Auditor General's reports that the migration to an accrual system should be emphasised more to the city and municipal councils.

Table 5.4: Descriptive Statistics of SLADI (%) for the Period of 2012-2015

Year	Mean	Median	Minimum	Maximum	Standard Deviation
2012	36.33	31.82	30.23	89.13	15.43
2013	36.39	31.82	30.23	89.13	15.41
2014	36.37	31.82	30.23	89.13	15.44
2015	36.36	31.82	30.23	89.13	15.41
Pooled %	36.36	31.82	30.23	89.13	15.20

Table 5.4 presents the descriptive statistics of SLADI over the study period. It can be seen from Table 5.4 that the mean SLADI across the four years was approximately 36%, with a minimum of 30.23% and a maximum of 89.13% respectively. Remarkably, the standard deviation for four years was almost constant at approximately 15%. The small variation suggests that there were very little changes to the presentation of the SLA's annual financial statements since there were only two SLA practice accrual accounting system.

Table 5.5: Distribution Scores of SLADI

Score Range	Number of SLA					% pooled in the sample
	2012	2013	2014	2015	Pooled	
30.01% - 34.99%	23	23	24	24	94	90.39
35.01% - 39.99%	1	1	0	0	2	1.92
40.01% - 89.99%	2	2	2	2	8	7.69
Total	26	26	26	26	104	100

Table 5.5 shows the distribution scores of SLADI, with most SLA disclosed approximately 30% to 39% of the accrual accounting information, representing closely to 92.31% pooled in the sample. On the extreme side, two SLA belonged to the range of 40.01% to 89.99%. On average, it denoted a low level of accrual disclosure in the annual financial statements across the SLA over the period of four years. It is possible to deduce that overall, from 2012 to 2015 there has been no change in the number of SLA achieving accrual disclosure score value of higher than 39.99%.

5.3.2 Changes in the Extent of Accrual Accounting Disclosure

This subsection aims to compare the mean ratio of SLADI over the period of four years, thus confirming whether any significant changes in the accrual accounting data disclosed in the SLA's annual financial statements from 2012 to 2015. Table 5.6 below presents the changes in the extent of SLADI between two consecutive years and overall years.

Table 5.6: Developments in the Extent of SLADI for the Period of 2012-2015

Year	SLADI (Mean scores %)	Differences among years	Changes in SLADI % $(Y_t\text{-}Y_{t-1})/\ Y_t$ *
Year 1-2	36.33	2012-2013	0.17
Year 2-3	36.39	2013-2014	-0.05
Year 3-4	36.37	2014-2015	-0.03
Overall	36.36	2012-2015	0.08

* Y_t: Mean SLADI in the current year, and Y_{t-1}: Mean SLADI in the previous year

Table 5.6 shows that the mean score of SLADI for each year was relatively consistent in such way, implying relatively little change in accrual accounting disclosure over the four years. Apparently, the mean change of SLADI reported a little reduction of 0.17% in (year 2012-2013), -0.05% in (year 2013-2014) and -0.03 in (year 2014-2015) respectively. However, the mean changes in SLADI between 2012 and 2015 was only 0.08%. From the same table, it can be summed up that there was relatively little change in the disclosure of accrual accounting information reported in the annual financial statements of the SLA during the period under study.

5.4 DISCLOSURE INDEX RESULTS BY CATEGORY

This section presents the result of RQ1 in detail, in such that the accrual disclosure scores are presented based on the category as laid out in the earlier chapter. As presented in Chapter 4, there were six categories constructed, namely: (A) statement of financial position; (B) statement of financial performance; (B) statement of changes in net asset/equity; (D) cash flow statements; (E) statement of budget performance; and (F) notes to the accounts. The explanation for these six categories is segregated into the breakdown of local authorities and disclosure items. This section also briefly discusses the summary of SLADI by each category.

5.4.1 Category A: Statement of Financial Position

Table 5.7 contains the descriptive statistics for the statement of financial position, commonly known as balance sheet, by the breakdown of local authorities. As can be seen in the table, the total average number of relevant disclosure score was 6.5 items (57.4%). The highest disclosure score was achieved by M1 (100%). Surprisingly, the lowest disclosure score was obtained by C2 (48.1%), which came from the city council's category. Also, twenty-one local authorities shared similar scores value of 50% (19 SLA) and 54.5% (2 SLA) respectively. On average, the maximum disclosure score for relevant accrual item achieved by the SLA was 11.3 items throughout the period studied.

On the other hand, Table 5.8 highlights the descriptive statistics based on the breakdown of disclosure items. The results indicate that nine items scored 100%, implying that all SLA disclosed such items based on the accrual accounting principles. These items are: (i) cash and cash equivalents; (ii) investment in renewal fund; (iii) investment in reserve fund; (iv) investment in general fund; (v) other investment; (vi) trust fund; (vii) renewal reserve fund; (viii) local authority reserve fund; and (ix) accumulated surpluses/(deficits) of general fund. The results are not surprising as the transaction processes under these items are not complicated as compared to the other types of assets or liabilities. These complexities have been acknowledged by Blöndal (2003), who identifies some recognition problems in the application of accrual concept for transacting certain items of assets and liabilities.

Additionally, two items disclosed more than 50%, namely: (i) investment in controlled entities, jointly controlled entities and associates (66.7%); and (ii) long-term borrowings (57.1%). In the case of investment in controlled entities, jointly controlled entities and borrowings, one reason for the lack of accrual disclosure was because the SLA regard the recognition of this item under the statement of financial performance as revealed in the focus group interview (refer subsection 6.7.2.6). Further, five items reported a disclosure score of below 10%, namely: (i) short-term receivables (7.7%) (ii) property, plant and equipment (7.7%); (iii) community assets (7.7%); (iv) short-term payables (7.7%), and (v) deferred development fund (3.8%). This implies that only two SLA disclosed the short-term receivables; property, plant and equipment; and short-term payables under accrual accounting principles throughout the study period. Out of twenty-six local authorities, only one SLA disclosed the information of deferred development fund using accrual principle. The low level of disclosure for these items is discussed thoroughly in Chapter 6 of the present study.

Regarding the short term-receivables, the interview's findings revealed that the majority of the SLA did not transact arrears such as assessment rates and rental in the balance sheet (refer subsection 6.3.1). Similarly, the short-term payables were also not available for the majority of the SLA as the payment transactions were based on a cash system (refer subsection 6.7.2.2). It was also reported during the interview that some of the obstacles encountered by the SLA were on the recognition and valuation of the community assets, such as road and other infrastructure and biological assets (refer subsection 6.4.7). Prior studies have also highlighted the difficulty of managing these type of assets, particularly in the aspects of recognition, depreciation and valuation (e.g. Pallot 1997; Blöndal 2003; Ouda 2014a).

Table 5.7: Descriptive Statistics of Category A: Statement of Financial Position by Breakdown of Local Authorities

SLA	Disclosure Score of Relevant Item				MDSRI				Disclosure Score %				Average Disclosure Score of Relevant Item	Average Disclosure Score %
	2012	2013	2014	2015	2012	2013	2014	2015	2012	2013	2014	2015	Pooled	
C1	13	13	13	13	14	14	14	14	92.9	92.9	92.9	92.9	13	92.9
C2	6	6	6	6	13	13	12	12	46.2	46.2	50.0	50.0	6	48.1
C3	6	6	6	6	11	11	11	11	54.5	54.5	54.5	54.5	6	54.5
M1	12	12	12	12	12	12	12	12	100	100	100	100	12	100
M2	8	8	8	8	13	13	13	13	61.5	61.5	61.5	61.5	8	61.5
M3	6	6	6	6	12	12	12	12	50	50	50	50	6	50
D1	6	6	6	6	11	11	11	11	54.5	54.5	54.5	54.5	6	54.5
D2	6	6	6	6	11	11	11	11	54.5	54.5	54.5	54.5	6	54.5
D3	6	6	6	6	11	11	11	11	54.5	54.5	54.5	54.5	6	54.5
D4	5	6	6	6	10	11	11	11	50.5	54.5	54.5	54.5	5.8	53.4
D5	5	5	5	5	10	10	10	10	50	50	50	50	5	50
D6	6	6	6	6	11	11	11	11	54.5	54.5	54.5	54.5	6	54.5
D7	6	6	6	6	11	11	11	11	54.5	54.5	54.5	54.5	6	54.5
D8	6	6	6	6	11	11	11	11	54.5	54.5	54.5	54.5	6	54.5
D9	6	6	6	6	11	11	11	11	54.5	54.5	54.5	54.5	6	54.5
D10	6	6	6	6	11	11	11	11	54.5	54.5	54.5	54.5	6	54.5
D11	6	6	6	6	11	11	11	11	54.5	54.5	54.5	54.5	6	54.5
D12	6	6	6	6	11	11	11	11	54.5	54.5	54.5	54.5	6	54.5
D13	6	6	6	6	11	11	11	11	54.5	54.5	54.5	54.5	6	54.5
D14	6	6	6	6	11	11	11	11	54.5	54.5	54.5	54.5	6	54.5
D15	6	6	6	6	11	11	11	11	54.5	54.5	54.5	54.5	6	54.5
D16	6	6	6	6	11	11	11	11	54.5	54.5	54.5	54.5	6	54.5
D17	6	6	6	6	11	11	11	11	54.5	54.5	54.5	54.5	6	54.5
D18	6	6	6	6	11	11	11	11	54.5	54.5	54.5	54.5	6	54.5
D19	6	6	6	6	11	11	11	11	54.5	54.5	54.5	54.5	6	54.5
D20	6	6	6	6	11	11	11	11	54.5	54.5	54.5	54.5	6	54.5
Total	6.5	6.5	6.5	6.5	11.3	11.3	11.3	11.3	57.2	57.4	57.5	57.5	6.5	57.4

Table 5.8: Descriptive Statistics of Category A: Statement of Financial Position by Breakdown of Disclosure Item

Code	Disclosure Item	Frequency	No. of Relevant Items	Percent (%)
Sub-category: Current assets (A1-A5)				
A1	Cash and cash equivalents	104	104	100
A2	Short-term receivables	8	104	7.7
A3	Investment in renewal fund	12	12	100
A4	Investment in reserve fund	92	92	100
A5	Investment in general fund	99	99	100
Sub-category: Non-current assets (A6-A9)				
A6	Property, plant & equipment	8	104	7.7
A7	Investment in controlled entities, jointly controlled entities and associates	8	12	66.7
A8	Other investments	8	8	100
A9	Community assets	8	104	7.7
Sub-category: Current liabilities (A10)				
A10	Short-term payables	8	104	7.7
Sub-category: Non-current liabilities (A11-A13)				
A11	Trust fund	100	100	100
A12	Deferred development fund	4	104	3.8
A13	Long-term borrowings	8	14	57.1
Sub-category: Net asset/equity (A14-16)				
A14	Renewal reserve fund	12	12	100
A15	Local authority reserve fund	96	96	100
A16	Accumulated surpluses/(deficits) of general fund	104	104	100
Total Category A: Statement of Financial Position		679		

5.4.2 Category B: Statement of Financial Performance

Statement of Financial Performance is also known as the Income Statement or the Statement of Revenue and Expenditure for those SLA that adopt modified cash basis. It is the second category appearing in the annual financial statements. Overall, the study reported that the average disclosure score of relevant items was 4.5 items, contributing to 40.8% of the accrual percentage over the period of four years. On average, there were approximately 11 applicable items of MDSRI in this category. The highest average disclosure score was 90.99% obtained by C1, followed by 77.8 (M1). In comparison, twenty-four local authorities achieved the total average disclosure score below 50%, impliedly portraying that the accrual disclosure was not given a high priority by those SLA. In this respect, sixteen local authorities reported similar lowest score of 36.4%.

Table 5.10 provides the breakdown of disclosure items contained in the statement of financial performance of SLA. It is apparent from Table 5.10 that five items reported 100% disclosure's achievement namely: (i) state grants and fixed payments; (ii) federal grants and reimbursements; (iii) gross surplus/(deficit) for the period; (iv) transfer to reserve fund; and (v) net surplus/(deficit) for the period. In contrast, the other items reported a very minimal disclosure below 10%, namely: (i) taxation revenue (3.8%); (ii) non-revenue receipts (7.7%); (iii) amortisation of fund (4%); (iv) expenses are aggregated to the nature, programme or purpose (7.7%); (v) development expenditure (4%); and (vi) property, plant and equipment (7.7%).

Surprisingly, only one SLA disclosed the information of assessment rates using accrual principle which fell under the taxation revenue item. Likewise, two SLA fulfilled the accrual requirements for the transaction of non-revenue receipts, such as a receipt of miscellaneous services. The lack of disclosure is perhaps attributed to various reasons including the requirement to match with the budget system (refer subsections 6.3.1 and 6.4.8), lack of accrual information in the legal provision (refer subsection 6.7.1.2), and the willingness to change as some SLA still prefer to use cash basis due to simplicity and easiness (refer subsections 6.4.5, 6.4.6 and 6.7.1.9). It was also found that non-taxation revenue which among others encompassing the licence and permits reported 0% achievement. This result suggests that none of the SLA disclosed the non-taxation revenue under accrual concept throughout the study period as the SLA could probably misunderstand the accrual accounting principle. The nondisclosure could also attributed to a few factors (refer subsection 6.7.2.6), such as lack of detailed work process, dysfunctional of accounting software, timing recognition problems, and non-applicability of Licencing-By-laws.

None of the SLA disclosed information regarding the transfer of renewal fund over the four years as stated under Section 46 of the LAO and Regulation 34 of the LAFR (refer Chapter 2 and Appendix 4.1). However, only one SLA disclosed the information on the transfer of renewal fund in the notes to the accounts, by qualifying that such transfer was not performed to strengthen the position of accumulated general fund throughout the study period. Despite the nondisclosure recorded over the four years, the consideration to grant ‘non-applicable’ is due to the fact that the transfer to renewal fund is one of the statutory requirements as laid out in the LAO and LAFR. In this respect, the SLA might provide the annual setting aside of the accounts subject to the adequate surplus recorded during that financial year and approval obtained from the Minister in-charge of the respective SLA.

Table 5.9: Descriptive Statistics of Category B: Statement of Financial Performance by Breakdown of Local Authorities

SLA	Disclosure Score of Relevant Item				MDSRI				Disclosure Score %				Average Disclosure Score of Relevant Item	Average Disclosure Score %
	2012	2013	2014	2015	2012	2013	2014	2015	2012	2013	2014	2015	Pooled	
C1	10	10	10	10	11	11	11	11	90.9	90.9	90.9	90.9	10	90.9
C2	4	4	4	4	11	11	11	11	36.4	36.4	36.4	36.4	4	36.4
C3	4	4	5	4	11	11	12	11	36.4	36.4	41.7	36.4	4.3	37.7
M1	7	7	7	7	9	9	9	9	77.8	77.8	77.8	77.8	7	77.8
M2	5	5	4	4	12	12	11	11	41.7	41.7	36.4	36.4	4.5	39
M3	5	5	4	4	12	12	11	11	41.7	41.7	36.4	36.4	4.5	39
D1	4	4	4	4	11	11	11	11	36.4	36.4	36.4	36.4	4	36.4
D2	4	4	4	4	11	11	11	11	36.4	36.4	36.4	36.4	4	36.4
D3	4	4	4	4	11	11	11	11	36.4	36.4	36.4	36.4	4	36.4
D4	4	4	4	4	11	11	11	11	36.4	36.4	36.4	36.4	4	36.4
D5	4	4	4	4	11	11	11	11	36.4	36.4	36.4	36.4	4	36.4
D6	4	4	4	4	11	11	11	11	36.4	36.4	36.4	36.4	4	36.4
D7	4	4	4	4	11	11	11	11	36.4	36.4	36.4	36.4	4	36.4
D8	4	4	4	5	11	11	11	12	36.4	36.4	36.4	41.7	4.3	37.7
D9	4	4	4	5	11	11	11	11	36.4	36.4	36.4	41.7	4.3	37.7
D10	4	4	4	4	11	11	11	11	36.4	36.4	36.4	36.4	4	36.4
D11	4	4	4	4	11	11	11	11	36.4	36.4	36.4	36.4	4	36.4
D12	5	4	4	4	12	11	11	11	41.7	36.4	36.4	36.4	4.4	37.7
D13	4	4	4	4	11	11	11	11	36.4	36.4	36.4	36.4	4	36.4
D14	4	4	4	4	11	11	11	11	36.4	36.4	36.4	36.4	4	36.4
D15	4	4	4	4	11	11	11	11	36.4	36.4	36.4	36.4	4	36.4
D16	5	5	5	5	12	12	12	12	41.7	41.7	41.7	41.7	5	41.7
D17	4	5	5	4	11	12	12	11	36.4	41.7	41.7	36.4	4.5	39
D18	4	4	4	4	11	11	11	11	36.4	36.4	36.4	36.4	4	36.4
D19	4	4	4	4	11	11	11	11	36.4	36.4	36.4	36.4	4	36.4
D20	4	4	4	4	11	11	11	11	36.4	36.4	36.4	36.4	4	36.4
Total	4.5	4.5	4.5	4.5	11.1	11.11	11	11	40.9	40.9	40.7	40.7	4.5	40.8

Table 5.10: Descriptive Statistics of Category B: Statement of Financial Performance by Breakdown of Disclosure Item

Code	Disclosure Item	Frequency	No. of Relevant Items	Percent (%)
Sub-category: Revenue (B1-B6)				
B1	Taxation revenue	4	104	3.8
B2	Non-taxation revenue	0	104	0
B3	Non-revenue receipts	8	104	7.7
B4	State grants and fixed payments	104	104	100
B5	Federal grants and reimbursements	104	104	100
B6	Amortisation of fund	4	100	4
Sub-category: Expenses (B7)				
B7	Expenses are aggregated according to their nature, programme or purpose	8	104	7.7
B8	Gross surplus/(deficit) for the period	104	104	100
Sub-category: Depreciation/amortisation (B9-B10)				
B9	Development expenditure	4	100	4
B10	Property, plant & equipment	8	104	7.7
Sub-category: Reserve transfer (B11-B12)				
B11	Transfer to reserve fund	14	14	100
B12	Transfer to renewal fund	N/A	N/A	N/A
B13	Net surplus/(deficit) for the period	104	104	100
Total Category B: Statement of Financial Performance		466		

* Any disclosure items deemed non-relevant for the respective SLA is classified as 'non-applicable (N/A)' thus, is ignored in the index computation.

5.4.3 Category C: Statement of Changes in Net Asset/Equity

The third category within SLADI includes six items of information and should be disclosed in the annual financial statements if SLA were to adopt a full accrual system. As can be seen in Table 5.11, the total average disclosure score of the study from 2012 to 2015 was 7.7%, which is equivalent to 0.4 relevant items. Remarkably, only two local authorities (C1 and M1) achieved full disclosure (100%). In contrast, not a single item was disclosed by the remaining twenty-four local authorities.

In Table 5.12, only one item recorded 100% disclosure score by M1, which is the effects of changes in accounting policies and correction of fundamental errors for each component of net asset/equity disclosed indicated in one particular year studied. The disclosure of that item was neither relevant nor mandatory to be disclosed in the annual financial statements by the other respective SLA, thus did not impart much weight on the overall disclosure score. However, five other items reported a disclosure score of 7.7%, indicating that only two local authorities (C1 and M1) disclosed the information over the period of four years.

Table 5.11: Descriptive Statistics of Category C: Statement of Changes in Net Asset/Equity by Breakdown of Local Authorities

SLA	Disclosure Score of Relevant Item				MDSRI				Disclosure Score %				Average Disclosure Score of Relevant Item	Average Disclosure Score %
	2012	2013	2014	2015	2012	2013	2014	2015	2012	2013	2014	2015	Pooled	
C1	5	5	5	5	5	5	5	5	100	100	100	100	5	100
C2	0	0	0	0	5	5	5	5	0	0	0	0	0	0
C3	0	0	0	0	5	5	5	5	0	0	0	0	0	0
M1	5	5	6	5	5	5	6	5	100	100	100	100	5.3	100
M2	0	0	0	0	5	5	5	5	0	0	0	0	0	0
M3	0	0	0	0	5	5	5	5	0	0	0	0	0	0
D1	0	0	0	0	5	5	5	5	0	0	0	0	0	0
D2	0	0	0	0	5	5	5	5	0	0	0	0	0	0
D3	0	0	0	0	5	5	5	5	0	0	0	0	0	0
D4	0	0	0	0	5	5	5	5	0	0	0	0	0	0
D5	0	0	0	0	5	5	5	5	0	0	0	0	0	0
D6	0	0	0	0	5	5	5	5	0	0	0	0	0	0
D7	0	0	0	0	5	5	5	5	0	0	0	0	0	0
D8	0	0	0	0	5	5	5	5	0	0	0	0	0	0
D9	0	0	0	0	5	5	5	5	0	0	0	0	0	0
D10	0	0	0	0	5	5	5	5	0	0	0	0	0	0
D11	0	0	0	0	5	5	5	5	0	0	0	0	0	0
D12	0	0	0	0	5	5	5	5	0	0	0	0	0	0
D13	0	0	0	0	5	5	5	5	0	0	0	0	0	0
D14	0	0	0	0	5	5	5	5	0	0	0	0	0	0
D15	0	0	0	0	5	5	5	5	0	0	0	0	0	0
D16	0	0	0	0	5	5	5	5	0	0	0	0	0	0
D17	0	0	0	0	5	5	5	5	0	0	0	0	0	0
D18	0	0	0	0	5	5	5	5	0	0	0	0	0	0
D19	0	0	0	0	5	5	5	5	0	0	0	0	0	0
D20	0	0	0	0	5	5	5	5	0	0	0	0	0	0
Total	0.4	0.4	0.4	0.4	5	5	5	5	7.7	7.7	7.7	7.7	0.4	7.7

Table 5.12: Descriptive Statistics of Category C: Statement of Changes in Net Asset/Equity by Breakdown of Disclosure Item

Code	Disclosure Item	Frequency	No. of Relevant Items	Percent (%)
C1	Surplus or deficit for the period	8	104	7.7
C2	Separate disclosure of reserves	8	104	7.7
C3	Each item of revenue and expense, recognised directly in net asset/equity, and total of these items	8	104	7.7
C4	Reconciliation between the carrying amount at the beginning and the end of the period for each components of reserves, separately disclosing each change	8	104	7.7
C5	The balance of accumulated surpluses or deficits at the beginning of the period and at the reporting date, and movements for the period	8	104	7.7
C6	The effects of changes in accounting policies and correction of fundamental errors for each components of net asset/equity disclosed	1	1	100
Total Category C: Statement of Changes in Net Asset/Equity		41		

5.4.4 Category D: Cash Flow Statement

Cash flow statement is the fourth category in SLADI, which include nine disclosure items to be disclosed by those preparing the annual financial statements under the accrual basis. The statement, which consists of the reporting activities on operating, investing, and financing enables a better cash management for the current and future cash flows, could assist in providing precise cash budgets. As discussed in Chapter 3, disclosing this statement is important to uncover its advantages in providing information on the cash liquidity that involves current and future cash flows (IFAC 2011), and also the management of working capital (Wynne 2007).

As shown in Table 5.13, only two local authorities (C1 and M1) reported 100% disclosure score for the nine cash flow items over the period of four years. It is also evident that the remaining twenty-four local authorities adopted modified cash basis by not presenting the cash flow statement in their annual financial statements but presenting the comparison of budget against actual and relying on the bank and cash balances at the year-end as the basis for managing the cash flows. The current practice of the majority of the SLA is similar to some Western local governments that the budgetary accounting is predominantly used with cash accounting (Anessi-Pessina, Sicilia and Steccolini 2012), thus provides information on the budget available for future spending (IFAC 2000). From Table 5.14, nine items shared similar disclosure score of 7.7% within the annual financial statements for the years 2012-2015. It is interesting to note that some SLA who are not using accrual system are still unable to present the cash flow statement although it can be directly generated from the new accounting software (refer section 6.8).

Table 5.13: Descriptive Statistics of Category D: Cash Flow Statement by Breakdown of Local Authorities

SLA	Disclosure Score of Relevant Item				MDSRI				Disclosure Score %				Average Disclosure Score of Relevant Item	Average Disclosure Score %
	2012	2013	2014	2015	2012	2013	2014	2015	2012	2013	2014	2015	Pooled	
C1	9	9	9	9	9	9	9	9	100	100	100	100	9	100
C2	0	0	0	0	9	9	9	9	0	0	0	0	0	0
C3	0	0	0	0	9	9	9	9	0	0	0	0	0	0
M1	9	9	9	9	9	9	9	9	100	100	100	100	9	100
M2	0	0	0	0	9	9	9	9	0	0	0	0	0	0
M3	0	0	0	0	9	9	9	9	0	0	0	0	0	0
D1	0	0	0	0	9	9	9	9	0	0	0	0	0	0
D2	0	0	0	0	9	9	9	9	0	0	0	0	0	0
D3	0	0	0	0	9	9	9	9	0	0	0	0	0	0
D4	0	0	0	0	9	9	9	9	0	0	0	0	0	0
D5	0	0	0	0	9	9	9	9	0	0	0	0	0	0
D6	0	0	0	0	9	9	9	9	0	0	0	0	0	0
D7	0	0	0	0	9	9	9	9	0	0	0	0	0	0
D8	0	0	0	0	9	9	9	9	0	0	0	0	0	0
D9	0	0	0	0	9	9	9	9	0	0	0	0	0	0
D10	0	0	0	0	9	9	9	9	0	0	0	0	0	0
D11	0	0	0	0	9	9	9	9	0	0	0	0	0	0
D12	0	0	0	0	9	9	9	9	0	0	0	0	0	0
D13	0	0	0	0	9	9	9	9	0	0	0	0	0	0
D14	0	0	0	0	9	9	9	9	0	0	0	0	0	0
D15	0	0	0	0	9	9	9	9	0	0	0	0	0	0
D16	0	0	0	0	9	9	9	9	0	0	0	0	0	0
D17	0	0	0	0	9	9	9	9	0	0	0	0	0	0
D18	0	0	0	0	9	9	9	9	0	0	0	0	0	0
D19	0	0	0	0	9	9	9	9	0	0	0	0	0	0
D20	0	0	0	0	9	9	9	9	0	0	0	0	0	0
Total	0.7	0.7	0.7	0.7	9	9	9	9	7.7	7.7	7.7	7.7	0.7	7.7

Table 5.14: Descriptive Statistics of Category D: Cash Flow Statement by Breakdown of Disclosure Item

Code	Disclosure Item	Frequency	No. of Relevant Items	Percent (%)
D1	Reporting cash flows from operating activities disclosed separately	8	104	7.7
D2	Net cash flows from operating activities disclosed separately	8	104	7.7
D3	Reporting cash flows from investing activities disclosed separately	8	104	7.7
D4	Net cash flows from investing activities disclosed separately	8	104	7.7
D5	Reporting cash flow from financing activities disclosed separately	8	104	7.7
D6	Net cash flows from financing activities disclosed separately	8	104	7.7
D7	Cash flows associated with extraordinary items disclosed separately	8	104	7.7
D8	Cash flows associated with interest and dividends or similar distributions received and paid as either operating, investing or financing activities disclosed separately	8	104	7.7
D9	Components of cash and cash equivalents and reconciliation of the amounts in the cash flow statement with the equivalent items reported in the statement of financial position disclosed	8	104	7.7
Total Category D: Cash Flow Statement		72		

5.4.5 Category E: Statement of Budget Performance

As stipulated in Regulation 39 (1) of the LAFR and MPSAS 1, a complete set of financial statements should include a comparison of budget and actual amounts either as a budget column or separate additional financial statement. This disclosure, in some countries are termed as a budgetary accounting, forms a core basis for the legal compliance, manages budget appropriations, and deals with cash receipts and disbursements (Pina, Torres and Yetano 2009; Christiaens et al. 2015).

It was found that the statement of budget performance appeared in the twenty-four local authorities' annual financial statements, resulting in the positive achievement of 92.3%, or 2.8 out of 3 items were being disclosed over the period of four years. The twenty-four local authorities also disclosed changes between the original and revised budget and detailed information about the budget heads and classifications. This result was expected as the SLA which adopted modified cash basis was making a total reference to the LAFR in the preparation of annual financial statements (refer subsection 6.3.2) apart from fulfilling the budget and fiscal compliance (Ouda 2003; IPSASB 2014b). In contrast, none of the above information was disclosed by the two SLA (C1 and M1) which were using PERS as the guidelines in preparation of the annual financial statements. As stated in the previous chapters, the PERS is an accounting standard designed for private entities. Thus, there is no such requirement for reporting the budget performance in the financial statements which is a possible reason for the nondisclosure as reported by the two SLA, despite the mandatory requirement of the LAFR.

Table 5.15: Descriptive Statistics of Category E: Statement of Budget Performance by Breakdown of Local Authorities

SLA	Disclosure Score of Relevant Item				MDSRI				Disclosure Score %				Average Disclosure Score of Relevant Item	Average Disclosure Score %
	2012	2013	2014	2015	2012	2013	2014	2015	2012	2013	2014	2015	Pooled	
C1	0	0	0	0	3	3	3	3	0	0	0	0	0	0
C2	3	3	3	3	3	3	3	3	100	100	100	100	3	100
C3	3	3	3	3	3	3	3	3	100	100	100	100	3	100
M1	0	0	0	0	3	3	3	3	0	0	0	0	0	0
M2	3	3	3	3	3	3	3	3	100	100	100	100	3	100
M3	3	3	3	3	3	3	3	3	100	100	100	100	3	100
D1	3	3	3	3	3	3	3	3	100	100	100	100	3	100
D2	3	3	3	3	3	3	3	3	100	100	100	100	3	100
D3	3	3	3	3	3	3	3	3	100	100	100	100	3	100
D4	3	3	3	3	3	3	3	3	100	100	100	100	3	100
D5	3	3	3	3	3	3	3	3	100	100	100	100	3	100
D6	3	3	3	3	3	3	3	3	100	100	100	100	3	100
D7	3	3	3	3	3	3	3	3	100	100	100	100	3	100
D8	3	3	3	3	3	3	3	3	100	100	100	100	3	100
D9	3	3	3	3	3	3	3	3	100	100	100	100	3	100
D10	3	3	3	3	3	3	3	3	100	100	100	100	3	100
D11	3	3	3	3	3	3	3	3	100	100	100	100	3	100
D12	3	3	3	3	3	3	3	3	100	100	100	100	3	100
D13	3	3	3	3	3	3	3	3	100	100	100	100	3	100
D14	3	3	3	3	3	3	3	3	100	100	100	100	3	100
D15	3	3	3	3	3	3	3	3	100	100	100	100	3	100
D16	3	3	3	3	3	3	3	3	100	100	100	100	3	100
D17	3	3	3	3	3	3	3	3	100	100	100	100	3	100
D18	3	3	3	3	3	3	3	3	100	100	100	100	3	100
D19	3	3	3	3	3	3	3	3	100	100	100	100	3	100
D20	3	3	3	3	3	3	3	3	100	100	100	100	3	100
Total	2.8	2.8	2.8	2.8	3	3	3	3	92.3	92.3	92.3	92.3	2.8	92.3

Table 5.16: Descriptive Statistics of Category E: Statement of Budget Performance by Breakdown of Disclosure Item

Code	Disclosure Item	Frequency	No. of Relevant Items	Percent (%)
E1	A comparison of budget and actual amounts either as a separate additional financial statement or as a budget column in the financial statements	96	104	92.3
E2	Any changes between the original and final budget, a cross reference is reported by way of note disclosure in the financial statements	96	104	92.3
E3	Budget details, which are aggregated into broad classes, such as common budget heads and budget classifications	96	104	92.3
Total Category E: Statement of Budget Performance		288		

5.4.6 Category F: Notes to the Accounts

The notes to the accounts are the final accrual category to be shown in the SLA's annual financial statements which encompasses a summary of significant accounting policies and other explanatory notes that might be helpful for the users of the financial report. Table 5.17 indicates that two SLA (C1 and M1) achieved 100% disclosure score over the four years. On the contrary, twenty-four local authorities attained 25% disclosure score, signifying that only one item was reported. Overall, the average disclosure score for the category of notes to the account was 30.8%.

While, Table 5.18 shows that one item, namely: 'provide additional information that is not presented on the face of the earlier four statements (categories) but that is relevant to an understanding of any of them' achieved 100% disclosure score. Table 5.18 also indicates that over the four years, the other three disclosure items equally reported a lower score of 7.7%. In relation to this, only two local authorities revealed these three items during the period studied like 'the information on the specific accounting policies used', 'disclosure of the information required that is not presented in the earlier statements (categories)', and 'other disclosures such as contingent liabilities and commitments'. In contrast, the remaining local authorities did not present such important information.

Table 5.17: Descriptive Statistics of Category F: Notes to the Account by Breakdown of Local Authorities

SLA	Disclosure Score of Relevant Item				MDSRI				Disclosure Score %				Average Disclosure Score of Relevant Item	Average Disclosure Score %
	2012	2013	2014	2015	2012	2013	2014	2015	2012	2013	2014	2015	Pooled	
C1	4	4	4	4	4	4	4	4	100	100	100	100	4	100
C2	1	1	1	1	4	4	4	4	25	25	25	25	1	25
C3	1	1	1	1	4	4	4	4	25	25	25	25	1	25
M1	4	4	4	4	4	4	4	4	100	100	100	100	4	100
M2	1	1	1	1	4	4	4	4	25	25	25	25	1	25
M3	1	1	1	1	4	4	4	4	25	25	25	25	1	25
D1	1	1	1	1	4	4	4	4	25	25	25	25	1	25
D2	1	1	1	1	4	4	4	4	25	25	25	25	1	25
D3	1	1	1	1	4	4	4	4	25	25	25	25	1	25
D4	1	1	1	1	4	4	4	4	25	25	25	25	1	25
D5	1	1	1	1	4	4	4	4	25	25	25	25	1	25
D6	1	1	1	1	4	4	4	4	25	25	25	25	1	25
D7	1	1	1	1	4	4	4	4	25	25	25	25	1	25
D8	1	1	1	1	4	4	4	4	25	25	25	25	1	25
D9	1	1	1	1	4	4	4	4	25	25	25	25	1	25
D10	1	1	1	1	4	4	4	4	25	25	25	25	1	25
D11	1	1	1	1	4	4	4	4	25	25	25	25	1	25
D12	1	1	1	1	4	4	4	4	25	25	25	25	1	25
D13	1	1	1	1	4	4	4	4	25	25	25	25	1	25
D14	1	1	1	1	4	4	4	4	25	25	25	25	1	25
D15	1	1	1	1	4	4	4	4	25	25	25	25	1	25
D16	1	1	1	1	4	4	4	4	25	25	25	25	1	25
D17	1	1	1	1	4	4	4	4	25	25	25	25	1	25
D18	1	1	1	1	4	4	4	4	25	25	25	25	1	25
D19	1	1	1	1	4	4	4	4	25	25	25	25	1	25
D20	1	1	1	1	4	4	4	4	25	25	25	25	1	25
Total	1.2	1.2	1.2	1.2	4	4	4	4	30.8	30.8	30.8	30.8	1.2	30.8

Table 5.18: Descriptive Statistics of Category F: Notes to the Account by Breakdown of Disclosure Item

Code	Disclosure Item	Frequency	No. of Relevant Items	Percent (%)
F1	Present information about the basis of preparation of the financial statements and the specific accounting policies used	8	104	7.7
F2	Disclose the information required that is not presented on the face of the statement of financial position, statement of financial performance, statement of changes in net assets/equity, or cash flow statement	8	104	7.7
F3	Provide additional information that is not presented on the face of the statement of financial position, statement of financial performance, statement of changes in net assets/equity, or cash flow statement, but that is relevant to an understanding of any of them	104	104	100
F4	Other disclosures, including contingent liabilities and unrecognised contractual commitments; and non-financial disclosures, e.g., the SLA's financial risk management objectives and policies	8	104	7.7
Total Category F: Notes to the Account		128		

5.4.7 Summary of the Six Categories

Table 5.19 and Figure 5.1 summarise the results from the overall six categories of SLADI over the four years period of study. The pooled results from the six categories showed different patterns in the range of the mean disclosures scores. Interestingly, each category seems to achieve a similar mean score in each year, suggesting that almost no change was being reported in the presentation of the SLA's annual financial statements throughout the period studied. It can be deduced here that the financial transformation programmes which have been taking place at the Federal and State governments, do not impart any spill-over effects towards the transition to accrual accounting in the SLA.

Overall, the total average SLADI for the six categories over the period studied was below the satisfactorily level at 39.45%. Among the six categories of SLADI, the statement of budget performance (category E) achieved the highest mean disclosure score at 92.3%. The maximum disclosure score was reported at 100% and none for the minimum. It was expected that the other two SLA which did not disclose such information (refer subsection 5.4.5) would easily disclose the information as the budgetary report was readily available, but provided that the alignment between accounting and budgeting principles was being resolved accordingly (refer subsections 6.4.8 and 6.7.2.5).

The second highest mean of disclosure score was reported at 57.4% (category A: statement of financial position), with the maximum and minimum scores of 100% and 48.1% respectively. These results suggest that the preparation of annual financial statements based on the accrual system could be implemented across the whole SLA. As revealed in subsection 5.4.1, the non-achievement of accrual disclosure was reported on items such as receivables, payables, and property, plant and equipment. In this regard, the transition to accrual accounting would be feasibly achieved if the government entities consider a 'step-by-step implementation' and adopt a pilot project (IFAC 2011), similar to the previous strategy taken by the SLA in the implementation of new accounting software (refer subsection 6.7.4). Therefore, the recognition of the short-term assets and liabilities should be put as a high priority in the 'step-by-step implementation' instead of moving to the fixed assets and long-term obligations (IFAC 2011). The availability of listing for items such as fixed asset, receivables and payables (refer subsections 6.7.2.1 and 6.7.2.2) would also assist the accrual implementation in the SLA through the adoption of ‘a gradual symmetrical approach’ (Chan 2006). Another notable nondisclosure was the accrual treatment on the fund accounting, specifically the development fund received from the government for the community asset and deferred development fund. Although there was a debate on the usefulness of fund accounting in the local government (Ingram 1986), its relevance particularly by using the accrual basis has been argued based on numerous advantages which consequently benefitting the government. The relevance of using accrual system is due to a few arguments such as fulfilling the Malaysian legal requirements and financial procedures (Salleh, Aziz and Bakar 2012), providing creditor decisions-related information (Torres and Pina 2003), and recording assets for the use of community (Christiaens and Rommel 2008).

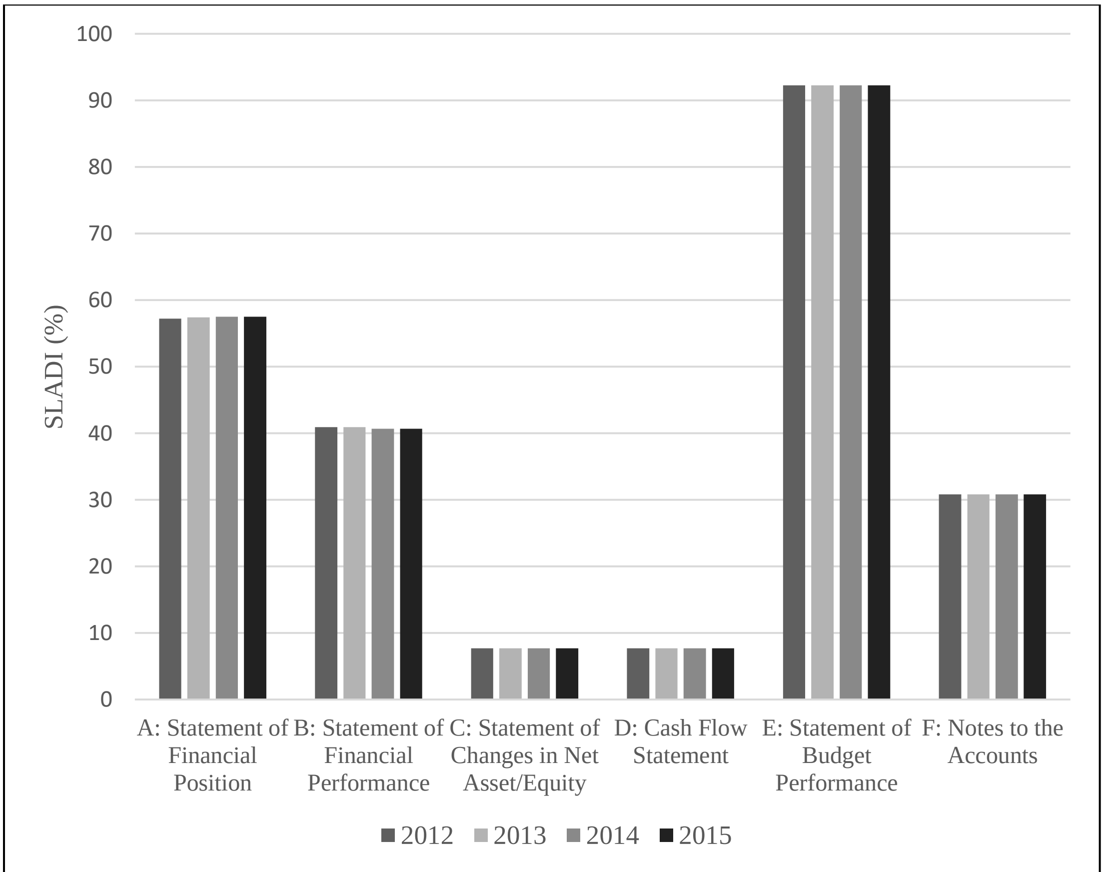
Statement of financial performance (category B) reported a maximum disclosure score of 90.9% and a minimum disclosure score 36.4%. The overall average disclosure score for the period studied was 40.8%. Apparently, the analysis in subsection 5.4.2 reveals that the nondisclosure of certain items such as taxation and non-taxation revenues, and operating expenses were mainly due to the absence of accounting policies and guidelines as well as the timing of revenue and expense recognition (refer subsections 6.7.2.6 and 6.7.2.7). Consistent with Christiaens and Rommel (2008), another possible explanation is perhaps due to the complication in budgeting certain expenses of items under accrual basis, in which some revenues could not be directly measured from cost consumed. This complexity should be resolved accordingly as the accurate recognition of revenue would enable the government to provide accurate information for financing the current of future program and services (IFAC 2011).

On the other hand, notes to the accounts (category F) achieved a maximum disclosure score of 100% and a minimum disclosure score of 25%, with an average mean of 30.8% over the period of four years. It can also be seen from Table 5.19 that the extent of accrual accounting disclosures for the statement of changes in net asset/equity (category C) and cash flow statement (category D) reported a lowest mean disclosure score of 7.7% respectively. Both categories received a maximum disclosure score of 100% and a minimum disclosure score of 0%, suggesting that the accrual information published in the SLA's annual financial statement was still inadequate, despite the capability of eLA2 to generate a report such as cash flow statement (refer section 6.8).

Table 5.19: Summary of the Descriptive Statistics of SLADI by Category

Category	Mean Percentage Score (%)				Pooled (%)	Minimum Score (%)	Maximum Score (%)
	2012	2013	2014	2015			
A: Statement of Financial Position	57.2	57.4	57.5	57.5	57.4	48.1	100
B: Statement of Financial Performance	40.9	40.9	40.7	40.7	40.8	36.4	90.9
C: Statement of Changes in Net Asset/Equity	7.7	7.7	7.7	7.7	7.7	0	100
D: Cash Flow Statement	7.7	7.7	7.7	7.7	7.7	0	100
E: Statement of Budget Performance	92.3	92.3	92.3	92.3	92.3	0	100
F: Notes to the Accounts	30.8	30.8	30.8	30.8	30.8	25	100
Total Average Disclosure Score (2012-2015)					39.45		

Figure 5.1: The Extent of SLADI by Category



5.5 COMPARISON OF THE RESULTS OF RESEARCH QUESTION 1 WITH THE PREVIOUS STUDIES

This section briefly presents the comparison the findings of SLADI with other relevant studies in the Malaysian perspective as well as the global context. Generally, it was evident that the presentation of annual financial statements in the MLA was still below the satisfactorily level, particularly the form and content of reporting which also included the accrual accounting disclosures (e.g. Omar, Amran and Aripin 2005; Mohamed et al. 2010; Mohamed, Atan and Ab Majid 2012; Mohamed, Hairy Mohd Yusof and Ab Majid 2013).

One of the earlier studies on the selected MLA revealed that there was a minimum requirement disclosure presented in the financial statements with no comparison made between the activity cost and the source of revenue which lead to a subjectivity analysis (Coombs and Tayib 2000). The study also found that there was a lack of detailed classification of fixed asset, no disclosure by any provisions, and limited disclosure of capital accounting and statement of accounting policies. The study also revealed that there was no disclosure being made on the cash flow statement, but a statement of sources and application fund was published. Given the findings as mentioned in the previous studies above (also refer section 2.3), there is a high degree of similarity regarding the level of accrual disclosure between the SLA and its counterparts in the Peninsular States of Malaysia, which is still at the mediocre level.

As mentioned in Chapter 2, a study on the seventy-five local authorities revealed that there were obvious differences of disclosures reported for the statement of financial position and statement of financial performance among the local authorities in 11 states of Peninsular Malaysia (Mohamed, Atan and Ab Majid 2012). Some local authorities in 11 states of Peninsular Malaysia adopted cash practices whereby the expenditure on development and capital assets were disclosed as part of the operating expenditure. However, the majority of the local authorities under studied disclosed breakdown and details of all income and expenditure in the notes to the account. It was also found that there were six different disclosure format of the statement of financial position and three types of the statement of financial position format, suggesting that the low level of uniformity disclosure reported to the local authorities not only in the Peninsular States but also among the SLA.

As stated in Chapter 4, Caba-Pérez and López-Hernández (2009) adopted IPSAS as references for analysing the accrual index compliance for the four MERCUSOR countries in which the index is used as one of the benchmarks for developing the SLADI in this current study. The study found that only three countries, namely: Argentina (80%), Paraguay (60%), and Brazil (40%) achieved a satisfactory disclosure for the first-level degree of compliance irrespective of their contents. Nevertheless, Uruguay did not present any IPSAS's accrual disclosure for the five contents of the financial reports from balance sheet item to the notes to the accounts. For the second-level requirements which focused on the presentation of each IPSAS's detailed items, there was a mixed-result of which the disclosure of accrual items published by the four MERCUSOR countries were lower than the achievement of the SLA. For instance, Argentina with the highest overall score only achieved 53.9%, with no disclosure being made to the items presented on the face of the cash flow statement. On the other hand, Brazil and Paraguay reported a total score of 21% and 42.1% for the second-level degree of compliance with the IPSAS. There was a mediocre level of compliance with items to be presented on the face of the balance sheet, the statement of the financial performance and notes to the account reported by both countries. Remarkably, there was no IPSAS information provided by Uruguay unlike the case of the SLA, whereby the lowest SLADI score stood at 30.23%.

Pina, Torres, and Yetano (2009), in their study of measuring the degree of accrual implementation in the EU local governments' published financial statements took IPSAS as a benchmark. Except for the UK and some Nordic countries with strong support from the accounting profession and central governments, other EU local governments did not show remarkable accrual accounting disclosure. The study revealed that different countries disclose different information, ranging from different types of modified accrual to full accrual, and items related to monetary assets and liabilities reported the highest disclosure score as this information was available in the budgetary systems. As similar to the SLA, however, there was high degree of non-compliance for items such as accumulated depreciation, intangible assets and infrastructures.

In the European local governments, Brusca et al. (2015) analysed the comparison of the accounting systems for the fourteen countries, such as Belgium, Finland, France, and Greece. From the study analysis, it was found that there were mixed variations of accounting basis being used as some countries still adopt modified cash and modified accrual respectively. Similar to SLA, it was also found that not all local governments in Austria, Denmark and Germany applied the same accounting principles, therefore, leading to the heterogeneity in the presentation of annual reports. It was also reported that only three countries: Spain, Sweden and the UK disclosed a statement of changes in equity. Also, there was a lack of disclosure of the recognition of long term obligations in which only four countries fulfil the requirements disclosure, while the other two countries reported a variation of treatment for the recognition of long-term obligations.There was also mixed variation of the disclosure of cash flow statement and notes to the accounts, whereby some countries did not disclose both or either one of that statements in the financial report. More importantly, the majority of local governments published a balance sheet and an income statement either by using accrual or modified accrual basis, which could be emulated by the SLA.

However, the empirical results of other prior studies cannot be totally compared with the findings of this research. Firstly, the current study's accrual disclosure index is a self-constructed index that consists of a different number of information items measured. For instance, items such as the investment in renewal fund, and state grants and fixed payments might not be applicable either in the context of other local governments in Malaysia or to some public sectors setting in other countries. Secondly, the development of accrual disclosure practices by the SLA during the study period remain constant despite the financial transformation activities taking place at the level of the Federal and State governments. Thirdly, the non-direct comparison is also attributed to the different regulations and specific disclosure requirements applied to the SLA's annual financial statements.

5.6 ASSOCIATION BETWEEN DEPENDENT AND INDEPENDENT VARIABLES

This section discusses the empirical findings of RQ2, i.e. “Do technology infrastructure, the size of local authorities, qualification of accountancy personnel, audit institution size, and regulations have significant associations with the disclosure of accrual accounting information in the Sarawak local authorities’ annual financial statements”. This section is divided into two subsections: subsection 5.6.1 presents the results of the univariate and bivariate analyses, and subsection 5.6.2 offers the analysis of the multivariate analysis.

5.6.1 Univariate and Bivariate Analysis

As discussed in Chapter 4, two types of univariate and bivariate analyses were conducted, namely: the descriptive statistics of the dependent and independent variables, and a correlation analysis using a non-parametric test, Spearman’s rank (Spearman’s rho) correlation coefficient. Both analyses are important in making general observations about the association between the five SLA-specific determinants and the extent of accrual accounting disclosure across the local authorities in Sarawak and the identification of the initial correlation between variables.

5.6.1.1 Descriptive Statistics

Table 5.20 shows the descriptive statistics for SLADI and the five independent variables that are constructed in this study. The descriptive statistics used are the measurements of central tendency (mean), median, size range (minimum and maximum), and dispersion (standard deviation). The results of skewness and kurtosis are also presented. The descriptive statistics of the dependent variable (SLADI) shows a mean value of 36%, with standard deviation (S.D.) of 15%, and range from 30% to 89%. These results correspond with the findings as revealed in RQ1 and RQ3 that only two SLA practice a modified to full accrual basis while the other twenty-four local authorities still adopt modified cash accounting system. As discussed in the earlier part of this chapter (refer section 5.3), the results of SLADI show extreme variance with two SLA achieve a scoring of over 88% while the remaining twenty-four SLA only report a score range from 30.23% to 35.48%, suggesting a lower level of accrual accounting disclosure. On the other hand, the coefficient of skewness and kurtosis are 3.1550 and 11.0009 respectively, indicating a slight divergence from the normal distribution. As stated by Garson (2012), the normal distribution for skewness and kurtosis should be within the lenient range of +2 to -2 and +3 to -3 respectively.

The descriptive statistics in Table 5.20 also show that the five independent variables, namely: TI, LSZ, QP, AI, and RG with mixed ranges. The skewness and kurtosis for TI, LSZ and AI are within the range of normal distribution. On the other hand, the kurtosis value for QP is slightly over than the acceptable value of the kurtosis by 0.4381. On the other hand, RG does not present acceptable values of the coefficients of kurtosis, thus threatening the assumption of the normality. This result is due to the consideration that the majority of the SLA still make a full reference to the LAFR, which do not cover the accrual disclosure in the preparation of annual financial statement (refer subsection 6.3.2 and the first two earlier chapters). While only two SLA comply with the PERS as the guidelines for the preparation of the annual financial statements which is based on the accrual principles. Remarkably, it causes a huge variability in the adoption of regulations between the twenty-six SLA in the sample of the study. On the other hand, the mean value of four independent variables, namely: TI, QP, AI, and RG is between 0.0769 and 0.3125, with an acceptable value of S.D for the four variables from 0.2678 to 0.4234. In contrast, LSZ indicates a mean value of 14.7824, with an S.D. of 1.6165.

Table 5.20: Descriptive Statistics of Dependent and Independent Variables

Variable	Mean	S.D.	Min.	Max.	Skewness	Kurtosis
SLADI	0.3636	0.1520	0.3023	0.8913	3.1540	11.0009
TI	0.3125	0.2803	0.00	1.00	0.1609	2.1816
LSZ	14.7824	1.6165	12.5266	17.7801	0.6824	2.1413
QP	0.1923	0.3960	0.00	1.00	1.5614	3.4381
AI	0.2308	0.4234	0.00	1.00	1.2780	2.6333
RG	0.0769	0.2678	0.00	1.00	3.1754	11.0833

* SLADI- accrual accounting disclosure index of Sarawak local authorities; TI- technology infrastructure; LSZ- natural logarithm transformation of annual collection of assessment rates; QP- qualification of accountancy personnel; AI- audit institution size; RQ- regulations.

5.6.1.2 Correlation Analysis

Table 5.21 shows the Spearman rank correlation between the five independent variables and the extent of accrual accounting disclosure index (SLADI). Except for AI, it can be seen that the other four independent variables, namely: TI, LSZ, QP and RG are significantly correlated with the SLADI. TI (r = 0.2935) and LSZ (r = 0.2259) are positively correlated at 5% level with SLADI, albeit statistically moderate. The SLADI shows a strong positive correlation with QP (r = 0.5215) and RG (r = 0.5490) at 1% level respectively.

The study finding reveals that there is no significant influence of AI (r = -0.0687) towards the disclosure of accrual accounting information. Moreover, there is a negative correlation between AI and SLADI which is in contradiction to the expectations of hypotheses 4 (H_4). This result suggests that the presence of internationally renowned audit institution does not assure the high quality of accrual accounting disclosure in the annual financial statements of the SLA. Another possible interpretation is that the locally based audit firms could impart better influence on the disclosure and quality of the SLA's annual financial statements.

Generally, the findings from the Spearman rank correlation indicate that the other four independent variables (TI, LSZ, QP, and RG) are in agreement with the research hypothesis, indicating preliminary assumption that the existence of their influence towards the accrual accounting disclosure. Also, there is a significant correlation among the pairs of several variables (TI, LSZ, QP, and RG), except for AI. However, multivariate analysis, which to be discussed in the next subsection is more appropriate to interpret the association between these variables, and it is impossible to confirm, at 1% or 5% significant level, a significant pairwise correlation between SLADI and other five independent variables. It is also interesting to note that the correlation results do not indicate any serious multicollinearity between any of the two variables[31].

[31] Gujarati and Porter (2009), suggest a threshold of above 0.8 indicate a serious multicollinearity in which the two regressors are highly correlated to each other.

Table 5.21: Spearman's Rank Correlation Matrix

Spearman's Rank Correlation Between Variables						
	SLADI	**TI**	**LSZ**	**QP**	**AI**	**RG**
SLADI	1.0000					
TI	0.2935* (0.0025)	1.0000				
LSZ	0.2259* (0.0211)	0.5892** (0.000)	1.0000			
QP	0.5215** (0.0000)	0.4758** (0.0000)	0.6176*** (0.0000)	1.0000		
AI	-0.0687 (0.4882)	-0.0278 (0.7792)	0.1593 (0.1063)	-0.0356 (0.7195)	1.0000	
RG	0.5490** (0.0000)	0.3821** (0.0001)	0.3762** (0.0001)	0.5916** (0.0000)	-0.1581 (0.1089)	1.0000

*   Correlation is significant at the 0.05 level
** Correlation is significant at the 0.01 level
P-values are given in parentheses: ( )

*** * SLADI- accrual accounting disclosure index of Sarawak local authorities; TI- technology infrastructure; LSZ- natural logarithm transformation of annual collection of assessment rates; QP- qualification of accountancy personnel; AI- audit institution size; RQ- regulations.

5.6.2 Multivariate Analysis

This subsection presents the results of the multivariate test of the research hypothesis as denoted in the RQ2, i.e. do the five independent variables, namely: TI, SZ, QP, AI, and RG have significant associations with the disclosure of accrual accounting information in the Sarawak local authorities' annual financial statements.

5.6.2.1 Minimum Sample Size

In conducting the multiple regression analysis, Tabachnick and Fidell (2013, 159) outline the formula for calculating sample size requirements, in such that "N ≥ 50 + 8m (where m is the number of independent variables)". Since this study is made of five independent variables, the number of cases required is 90. Therefore, the 104 observations (i.e. twenty-six local authorities multiplied by four financial years) justify the minimum sample size requirement to perform the multiple regression analysis.

5.6.2.2 Three Estimators Panel for the Regression Model

This subsection determines the right estimator panel for the regression model by analysing several statistical tests, such as F test for FE, the Breusch-Pagan Lagrange Multiplier test and Hausman test. As stated in Chapter 4, three estimators panel were conducted to obtain the best model in explaining the association between the dependent and independent variables, mainly: POLS, FE, and RE models (Baltagi 2005; Wooldridge 2013; Hsiao 2014). According to Tejedo-Romero and de Araujo (2015), if the term $\mu_{it} = \mu_i + \nu_{it}$ is assumed to be constant, there is neither significant individual nor significant time effects, and the POLS estimator assumes that all the terms are equal. If the term μ_i is assumed to be a fixed parameter, then the model is an FE, and if the term μ_i is assumed to be random, then the model is an RE. Therefore, this study employed multiple multivariate analysis, with different diagnostic statistical tests as the approaches taken in the previous accounting disclosure studies have proven that it might help to generate results that are robust across methods instead of solely relying on a method-driven (Cooke 1998).

Model Specification Test

Firstly, the study conducts a Ramsey RESET and Link test to check for the omitted variables and the accuracy of model specification. The result from Ramsey RESET test shows that the panel model is correctly specified, with F(2,96) = 0.82; p-value = 0.4446. Link test also shows that the model is well-quantified with a p-value = 0.856, suggesting the proper specification of the model. As shown in Table 5.22, both tests reveal that there is no reason to reject the null hypothesis for the SLADI model.

Table 5.22: Result of Model Specification

Statistical Test	Results
Ramsey RESET Test	F(2,96) = 0.82 Prob>F = 0.4446
Link Test	_hat P>|t| = 0.020 _hatsq P>|t| = 0.856

Regression Diagnostic Test

The F-test result (p-value = 0.0000) indicates that there is individual local authority effect, thus rejecting the null hypothesis. The results from POLS model is deemed reasonable, however, accepting the pooling data might lead to a biased result without taking into consideration of heterogeneity or serial correlation issues (Hsiao 2014). Therefore, other diagnostic tests are performed to satisfy the assumption that the POLS model is not suitable for the study data.

Table 5.23: Result of F-test

Statistical Test	Results	Decision
F-test	F(3,75) = 0.11 Prob>F = 0.000	Reject H_0

In respect of the diagnostic tests mentioned above, the four assumptions underlying the OLS regression (Hair et al. 2010) show a mixed statistic results. Firstly, a Shapiro-Wilk test (p-value = 0.0000) reveals that the assumption of normality of residuals is not met. From Table 5.24, the p-value is less than 0.05, which is significant and the null hypothesis is rejected. As a remedy, Tabachnick and Fidell (2013) suggest using the transformation of variables to improve the normality. However, the current study opted not to perform the data transformation because of the consideration to maintain the original data of the dependent variable in particular, and its association with the five independent variables. Consistent with Fox 1984, quoted in Cooke (1998, 3), the study identifies that the dependent variable should not be transformed as it might "disturb the relationship between the dependent variable and the other regressors and because the error distribution is changed".

Table 5.24: Result of Shapiro-Wilk Test

Variable	W	V	z	Prob>z
Residuals	0.3166	58.30	9.04	0.0000

Secondly, the multicollinearity test (mean VIF = 2.10) shows the degree of correlation among independent variables generates Variation Inflation Factor (VIF) values of less than 10 (refer Table 5.25). According to Gujarati and Porter (2009), if the VIF value is more than 10, there is strong evidence that multicollinearity problem exists. This result suggests that no multicollinearity problem arises among the five independent variables, thus consistent with the argument of Baltagi (2005) that the advantage of panel data approach could minimise multicollinearity.

Table 5.25: Result of Multicollinearity Test

Variable	VIF	Decision
TI	3.08	No multicollinearity problem
LSZ	3.04	No multicollinearity problem
QP	1.67	No multicollinearity problem
AI	1.67	No multicollinearity problem
RG	1.05	No multicollinearity problem
Mean VIF	**2.10**	

* SLADI- accrual accounting disclosure index of Sarawak local authorities; TI- technology infrastructure; LSZ- natural logarithm transformation of annual collection of assessment rates; QP- qualification of accountancy personnel; AI- audit institution size; RQ- regulations.

Thirdly, the White's test (p-value = 0.0000) indicates that there is a heteroscedasticity problem, which contradicts the result of the Breusch-Pagan/ Cook-Weisberg test (p-value = 0.1488) (refer Table 5.26). The result of White's test shows that the chi-square probability value of 0.0000 is less than 0.01, which is statistically significant at 1% level. To further validate the discrepancy of both results, a graphical method is used to plot the residuals against fitted values (refer Appendix 5.4). The pattern as shown in the graph, suggests a violation of the OLS assumption that the failure of the homoscedasticity requirement resulted from non-normality by one of the variables (Tabachnick and Fidell 2013). Based on the results of White's test and the graphical method, there is a heteroscedasticity in the model and rectification for the regression is required.

Table 5.26: Result of Heteroscedasticity Test

Statistical Test	chi2	Prob > chi2	Decision
White's Test	53.02	0.0000	Reject H_0
Breusch-Pagan/ Cook-Weisberg test	2.08	0.1488	Do not reject H_0

Fourthly, the Wooldridge test shows the p-value of 0.036, which is less than the threshold of 0.05, suggesting that the study data has a serial correlation problem. Thus, the null hypothesis is rejected which indicating that the study model has a problem of autocorrelation (refer Table 5.27). Based on these statistical tests, therefore, it can be concluded that some of the assumptions of the OLS are not met, which justify that the OLS model is not suitable for the study data.

Table 5.27: Result of Autocorrelation Test

Statistical Test	F	Prob > F	Decision
Wooldridge Test	4.884	0.0365	Reject H_0

Pooled Effect against Random Effect

The Breusch-Pagan/ Lagrange Multiplier is used to compare whether the RE is more appropriate than the POLS. According to Brooks (2014, 536), if RE procedures are used, it implies that "the parameters (α and the β vector) are estimated consistently but inefficiently by OLS, and the conventional formulae would have to be modified as a result of the cross-correlations between error terms for a given cross-sectional unit at different points in time". The result of the Breusch-Pagan/ Lagrange Multiplier with a p-value = 0.0000, profoundly rejects the null hypothesis. Therefore, the POLS model is not suitable. In other words, there is local authority-specific effects in the data. Thus, the succeeding test is turned into either FE or RE models.

Table 5.28: Result of Breusch-Pagan/ Lagrange Multiplier Test

Statistical Test	chi2	Prob > chi2	Decision
Breusch-Pagan/ Lagrange Multiplier Test	79.83	0.0000	Reject H_0, RE model

Random Effect against Fixed Effect

The result of the Hausman test with a p-value = 0.9541 is more than 0.05, thus not rejecting the null hypothesis. The result of the Hausman test indicates that the RE model is the more appropriate model specification to be used against the FE model due to the local authority-specific effects in the study data. In other words, the assumption underlying the RE model is that the N individual is drawn randomly from the common population, in such that the model is deemed appropriate if there is no strict correlation between the individual specific constant terms and the independent variables (Baltagi 2005). Additionally, the RE model, which applies the generalised least squares method can control the estimation of the coefficients for time-varying, and time-invariant variables that also assumes the difference across organisations (SLA) might exert some influences on the dependent variable (SLADI) (Baltagi 2005; Hsiao 2014). In a similar note, Baltagi (2005), highlights that the study data with small T and large N will generate different estimation results from the RE and FE models.

Table 5.29: Result of Hausman Test

Statistical Test	chi2	Prob > chi2	Decision
Hausman test	0.33	0.9541	Do not reject H_0, RE model

Based on the various statistical tests shown above, this study regression is under RE with cluster-robust standard errors model. The cluster-robust option is used to control any heteroscedasticity (Torres-Reyna 2007) and serial correlation problems (Baltagi 2005) which are reported in the earlier diagnostic tests, thus rectifies the model accordingly. A summary of results for the five-panel regression model, namely: POLS, FE (within), RE (GLS), RE (cluster-robust standard errors) and OLS (cluster-robust standard errors) are also shown in Appendix 5.3 for comparative purposes.

5.6.3 Results of GLS Regression Analysis

This subsection directly discusses and interprets the RQ2, i.e. the association between the dependent variable (SLADI) and the five independent variables (TI, LSZ, QP, AI, and, RG) in the SLA. As mentioned earlier, this study uses the RE generalized least squares (GLS) regression estimated with cluster-robust standard errors at the SLA. The results are displayed in Table 5.30 below.

Table 5.30: Results of the RE Generalized Least Squares (GLS) Regression Estimated with Cluster-Robust Standard Errors

IV	Coefficient	Robust Std. Err.	*t*-statistic	One-tailed *p*-value	[95% Confidence Interval]	
TI	0.0025*	0.0016	1.59	0.0565	-0.0006	0.0057
LSZ	-0.0016**	0.0008	-1.91	0.0298	-0.0032	0.0001
QP	0.0177**	0.0107	1.65	0.049	-0.0033	0.0387
AI	-0.0004	0.0007	-0.48	0.3155	-0.0018	0.0011
RG	0.5542***	0.0105	52.84	0.000	0.5336	0.5747
_cons	0.3402***	0.0115	29.52	0.000	0.3176	0.3628

Significance level: ***p<0.01, **p<0.05, *p<0.1 levels respectively
R-squared: (within) = 0.0036, (between) = 0.9975, (overall) = 0.9969
Prob > F = 0.0000
Number of obs = 104, (N = 26, T = 4)
- means negative effect, + means positive effect

SLADI- accrual accounting disclosure index of Sarawak local authorities; TI- technology infrastructure; LSZ- natural logarithm transformation of annual collection of assessment rates; QP- qualification of accountancy personnel; AI- audit institution size; RQ- regulations.

The RE generalized least squares (GLS) regression estimated with cluster-robust standard errors presented in Table 5.30 is highly significant ($p<0.0001$). The multiple coefficients of determination, denoted by R^2 correlation stood at 0.9969, which impliedly stating that the GLS model is capable of explaining 99.69% of the variation in SLADI throughout the study period. In other words, the high value of R^2 reveals that "the square of the correlation between the values of the dependent variable and the corresponding fitted values from the model…means that the model fits the data well" (Brooks 2014, 152). However, Gujarati and Porter (2009), argue that R^2 would not be able to predict the out-of-sample observations effectively, and by adding more variables to the model, it may increase the value of R^2. Their argument can be illustrated as in the case of this study data whereby the inclusion of RG into the model increases the overall value of R^2 from 0.3764 (level 4) to 0.9969 (level 5) (refer Table 5.31). On this basis, it is apparent that the RG imparts significant influence on the current study data as well as the disclosure of accrual accounting information in the annual financial statements of SLA. Furthermore, the RG adopted by the respective SLA remains constant over the four years, which also justifies the use of RE model that can tackle the time-invariant variables (Baltagi 2005; Hsiao 2014).

Table 5.31 below illustrates the comparison of measurements of the goodness of fit (R^2) of SLADI model using the GLS regression with cluster-robust standard errors by combining the different levels of independent variables. Although the study indicates a relatively high value of R^2, more importantly, an emphasis should also be stressed on the signs of the estimated coefficients, the theoretical aspects supporting the selected model and the statistical significance (Gujarati and Porter 2009) which explain the causes of change in the SLADI. The following paragraphs discuss the regression results by the five hypotheses developed for the study.

Table 5.31: Measurement of the Goodness of Fits of SLADI Model

Independent Variables	**Regression Level**	**R^2 (Overall)**
TI	1	0.2146
TI, LSZ	2	0.2571
TI, LSZ, QP	3	0.3762
TI, LSZ, QP, AI	4	0.3764
TI, LSZ, QP, AI, RG	5	0.9969

* SLADI- accrual accounting disclosure index of Sarawak local authorities; TI- technology infrastructure; LSZ- natural logarithm transformation of annual collection of assessment rates; QP- qualification of accountancy personnel; AI- audit institution size; RQ- regulations.

5.6.3.1 Hypothesis One: Technology Infrastructure

The result of the GLS regression model shows marginally significance between the technology infrastructure and the extent of disclosure of accrual accounting information in the annual financial statements of SLA, hence supports the first hypothesis. The correlation coefficient for TI is 0.0025, which is positive at the level of significance 0.0565 ($p<0.1$). The result of the GLS regression is also similar with the Spearman correlation result on the existence of a relationship between the technology infrastructure and the extent of accrual accounting disclosure (SLADI).

Consistent with prior studies (e.g. Hepworth 2003; Khan and Mayes 2009; Pollanen and Loiselle-Lapointe 2012), the public sector reform process which concerns with the move from cash to accrual system would demand for an upgrading of the computerised accounting system that could cater for the needs of the accrual's requirements. The result of the present study is also consistent with the argument of Pitulice (2013) in the context of local authorities by modernising the IT capacity forms as one of the requirements for the disclosure of accrual data in the reporting financial statements. More importantly, the needs of having a full accrual functionalities have been witnessed as in the case of the Malaysian federal government, in which the inability of system development to cater the full usage of accrual system has resulted in a series of implementation delay (PEMANDU 2017).

Despite the acknowledgement on some deficiencies caused by the previous accounting software employed by the SLA, the findings from the focus group interview seem to be consistent with the result of the first hypothesis, which does not rank high significance on the technology infrastructure (refer subsection 6.5.3 and 6.7.2.6). However, the effort of the MLGH and SAINS in introducing the new version of accounting software to cater the transition towards accrual accounting in the SLA has been commendable, although the system has not yet been equipped with the full accrual packages. In conclusion, the above results indicate that the existence of full accrual functionalities designed in the computerised accounting system such as the rating and billing system, and financial accounting system is relatively important in the drive for the SLA for the implementation of accrual accounting system.

5.6.3.2 Hypothesis Two: Size of Local Authorities

This study examines the size of local authorities through the collection of assessment rates from the annual revenue of the SLA. For the size of local authorities, the results show that t-statistic (-1.91) and p-value (<0.05) from the collection of assessment rates in the annual revenue are statistically significant. However, regression results indicate that the effect of the size of local authorities on SLADI is negative with the coefficient of -0.0016. Hence, the second hypothesis that the size of local authorities shows a positive association with the extent of disclosure of accrual accounting information in the annual financial statements of the SLA is rejected. This weak negative relationship indicates that the larger council does not necessarily produce a better disclosure level regarding the compliance of the accrual accounting presentation.

This result is however not consistent with the outcomes of many relevant disclosure studies which find out that larger councils tend to have a greater disclosure for the choice of accounting standard and compliance level, including the accrual disclosure (e.g. Christiaens 1999; Falkman and Tagesson 2008). In Indonesia for instance, Susbiyani et al. (2014) find out that type of local authorities has great influence on the framework disclosure compliance as contained in the financial statements, which was based on the Indonesia Government Accounting Standard (IGAS).

Nevertheless, the finding of the second hypothesis is in line with the focus group interview in Phase 2 of the study that the size of local authorities does not pose any significant influence on the accrual accounting disclosure (refer subsection 6.5.4). There are two reasons to explain these results. Firstly, from the findings of RQ1 revealed that from the larger councils understudied, only one city council and one municipal council reported a satisfactory disclosure score of more than 88%, implying that the remaining four city and municipal councils, which scored between 30.77% to 35.48% do not exert any weight on disclosing the accrual information. Secondly, as argued by one of the interviewees, the smaller council can easily move to the accrual system due to the lesser accounting transactions as compared to the larger council (refer subsection 6.5.4). The two findings from the GLS regression and focus group interview should be interesting to the higher authorities to consider in order to overcome the weaknesses of the current cash system. The NAD, in particular, might consider encouraging the district councils to also migrate to the accrual systems apart from putting a strong priority to the city and municipal councils (NAD 2016b). Regardless of the size of local authorities, the study results indicate that equal emphasis should be put on all level of the SLA to consider to move to an accrual system for the preparation of annual financial statements.

5.6.3.3 Hypothesis Three: Qualification of Accountancy Personnel

The regression results as shown in Table 5.30 reveals that the qualification of accountancy personnel is also statistically significant at 5% level, with the coefficient of 0.0177. Hence, the third hypothesis is not rejected. An earlier finding of the Spearman correlation matrix also shows that the qualification of accountancy personnel correlates with SLADI, but strongly at 1% level. This result suggests that an accountancy personnel who possesses at least a Bachelor degree in accounting with the membership of professional accountancy bodies will lead to a high level of accrual disclosure in the annual financial statements of SLA.

Consistent with prior studies (e.g. Allen and Sanders 1994; Carpenter and Feroz 2001; Ouda 2010), professional education level of the finance officers has positively influenced the extent of disclosure in financial reports and concurrently facilitated the implementation of accrual system. Lüder (1992) also argues that high-quality academic qualifications with diverse professional training and private working experience are of paramount importance for influencing the attitude towards the accounting change in the public sector. Indeed, McLeod and Harun (2014) acknowledge the importance of the qualified financial report preparer as in the case of the local government in Indonesia and to the greater extent Australia which determines the disclosure quality and smooth implementation of accrual accounting.

The focus group results in Phase 2 of the current study also provide strong support that the qualification of accountancy personnel is essential towards the disclosure of accrual accounting information (refer subsection 6.5.2). One of the reasons that impedes the disclosure of accrual information in the annual financial statements of SLA is due to inexperienced staff who does not have strong accounting background (refer subsection 6.7.1.3). This finding is quite encouraging as it may pose strong evidence for the higher authorities to consider emphasising on the recruitment and redeployment of the accountancy personnel in the respective SLA, particularly the district councils (refer Chapter 7).

5.6.3.4 Hypothesis Four: Audit Institution Size

According to the GLS regression results, the extent of disclosure of accrual information in the annual financial statements of the SLA is not affected by the audit institution size. The coefficient representing the audit institution size is not statistically significant at -0.0004 with a *p*-value of 0.3155, which is contrary to the earlier prediction. Therefore, *"H_4: There is positive association between international affiliated audit firm and the extent of disclosure of accrual accounting information in the annual financial statements of SLA"* is rejected. The GLS regression result is also similar to the earlier finding of the Spearman correlation matrix.

Despite the earlier prediction that the internationally based audit firms will impart normative isomorphism towards accrual disclosure, there are mixed results reported on the public sector's disclosure studies that empirically support the audit institution size as being a crucial predictor (refer subsection 4.5.4). The results found in this present study is consistent with Copley (1991) and Gordon et al. (2002), who found that the presence of internationally renowned audit institution does not assure the high quality of service and hence, may work both ways regarding its association with the disclosure level. Therefore, the notion that the internationally based audit firms can provide a higher quality of technical advice (e.g. Lüder 1992; Falkman and Tagesson 2008) may not be applicable in the case of the SLA due to the different settings and disclosure aspects.

Correspondingly, the focus group interview did not put any significant value to the audit institution size. There are two reasons for the arguments of the non-importance of audit institution size. Firstly, the SLA are not necessarily bound to the professional audit recommendation on the accrual disclosure, and the non-compliance will not lead to a systematic penalty. Secondly, the empirical evidence from the focus group interview has justified that both the international and local based audit firms brought similar influences on the disclosure and quality of the SLA's annual financial statements (refer subsection 6.5.5). In conclusion, the study results impliedly indicate that the audit institution size does not exert any influence towards the accrual accounting disclosure.

5.6.3.5 Hypothesis Five: Regulations

The GLS regression result indicates that the effect of regulations on the extent of disclosure of accrual accounting information in the annual financial statements of the SLA is highly significant at 1% level, with a coefficient of 0.5542. Thus, the fifth hypothesis is not rejected, as there is a positive association between the regulations and SLADI. An earlier Spearman matrix also shows a highly significant correlation which suggests that the regulations are the most significant predictor of the accrual accounting disclosure to be emphasised in this study.

Although the earlier disclosure studies conducted in the US local governments reported adverse results (e.g. Robbins and Austin 1986; Ingram and DeJong 1987), this scenario may not be applicable in the context of the emerging economies such as Malaysia. As discussed in Chapter 1, one of the preliminary efforts taken by the Malaysian government in facilitating the transition towards accrual accounting is through the issuance of Treasury circular and accrual accounting manuals as well as the development of the customised accounting standards, namely MPSAS. Through the perspective of the pioneer country, the enactment of the Public Finance Act 1989 has triggered the smooth adoption of full accrual implementation by all government departments in New Zealand (Simpkins 1998). Similarly, some EU's local governments have benchmarked IPSAS, which facilitates the disclosure of annual financial statements using accrual basis (Pina, Torres and Yetano 2009).

The regulations, as a fundamental variable was also highlighted in the focus group interview, in which the necessity of having a comprehensive legal provision governing the accrual practices would then justify the adoption of any accounting standards like IPSAS that suit the requirements of the SLA (refer subsection 6.5.1). Additionally, the absence of statutory requirements mandating on the accrual disclosure practice has prompted a delay in the transition towards accrual accounting for the majority of the SLA, despite the willingness to change for some of them (refer subsection 6.7.1.9). In short, H_5 which argues that the regulations are associated with the extent of accrual accounting disclosure is the most significant predictor of disclosure in this study.

5.7 ASSOCIATION BETWEEN THE RESULTS OF RESEARCH QUESTION 2 AND THE THEORETICAL PERSPECTIVES

This section discusses the linkages between the results of the five independent variables in the GLS regression with the theoretical perspectives. In other words, it presents how the three types of institutional isomorphism help to explain the variables that influence the disclosure of accrual accounting information in the SLA's annual financial statements from 2012 to 2015. As presented in Chapter 3, the institutional theory is used to offer a strong hypothesis that could explain the change of accounting system (Collin et al. 2009) and deal with interconnections between an organisation and its operating environments (Adhikari and Mellemvik 2011). Based on the findings of RQ2, the institutional isomorphism exists in three variables, namely: technology infrastructure, qualification of accountancy personnel, and regulations.

a) Coercive Isomorphism

According to DiMaggio and Powell (1983), coercive isomorphism, which comes in the form of formal or informal, may influence the organisation as a result of the regulative action exerted by the other organisations of whom they are dependent on the resources or support. From an institutional perspective, there is a strong evidence of the existence of coercive isomorphism in the disclosure practices either in formal or informal pressures exerted on the SLA by the other regulatory bodies or higher authorities, in the case of the technology infrastructure although the regression result indicates it as a marginally significant variable. There are two reasons to explain this result. Firstly, the previous directive issued by the State authority on the reform of IT accounting system has brought much impact, particularly to one city council in facilitating the disclosure of accrual accounting information in the annual financial statements (Joseph and Janggu 2007). Secondly, the introduction of new accounting software, called eLA2 has also brought some impacts in harmonising the core business procedures of the SLA, despite not wholly covering the extent of accrual accounting disclosure (refer subsection 6.6.5). This form of coercive pressure is consistent with the findings of the focus group interview, whereby the revolution of the computerised accounting system, which initially started with the two SLA, has caused a snowballing effect to other SLA (refer subsections 6.7.3 and 6.7.4). In this case, the informal coercive pressure exists as some of the SLA are perhaps relying on the support of the technology provider (SAINS) which consequently brings positive effect on the disclosure practices.

The regression result also indicates that the regulations are the most significant variables that influence the extent of accrual accounting disclosure in which both bivariate and multivariate analyses indicate a highly significant association result at 1% level. It is interesting to illustrate how important the coercive isomorphism can act to mandate the disclosure of accrual accounting practices in some Western countries. Some examples are the enactment of the Public Finance Act 1989 in New Zealand (Simpkins 1998) and the enforcement of the law for the accrual accounting implementation in French local government (Lande 2006). Therefore, there is an evidence of coercive isomorphism in the disclosure practices of the SLA. Due to the absence of the accrual disclosure requirements, some SLA opt to adopt PERS as the guidelines for the preparation of their annual financial statements. Consistent with DiMaggio and Powell (1983), this adoption which takes the origin in informal pressures is possibly due to the expectation of the society or environment to which the SLA are working. The existence of coercive isomorphism for the regulations is also justified in the focus group interview that highlights the importance of regulations for the public officials which would then justify the enforcement of PERS or any relevant accounting standards (refer 6.5.1). The directive given by the top management for the accrual practices is also due to the external influences that substantiate the existence of regulations as a form of institutional pressures (refer 6.6.4).

The above findings are consistent with Lüder (1992), who argues on the importance of regulations as an institutional arrangement that could shape the public sector’s information instruments such as financial accounting system and reporting. Further, the conformance to the specific regulations would determine the contents and disclosure of the government’s annual report through the tenet of institutional pressures (Ryan, Dunstan and Brown 2002). Based on the above discussion, the necessity of having a comprehensive legal provision governing the accrual practices would mandate the adoption of any accounting standards that suits the disclosure requirements of the SLA. Therefore, the dependency on other organisations and external environment has seen the coercive pressure to be much relevant in driving the public sector accounting reform as compared to either the mimetic and normative isomorphism (Adhikari, Kuruppu and Matilal 2013).

b) Normative Isomorphism

The normative isomorphism is also evident from the findings of RQ2. It should be noted that a significant positive association was found between the qualification of accountancy personnel and the extent of accrual accounting disclosure at 5% significant level. As stated by Adhikari and Mellemvik (2010), the normative isomorphism, which concerns on the association with the professional bodies and academic qualifications, is influential in driving the implementation of an acceptable accounting practice, so this applies in the context of this study. Therefore, the shared norm exists within the SLA as the experience and knowledge brought by the normative isomorphism which influences the disclosure of accrual accounting information among the members of the fraternity. Consistent with DiMaggio and Powell (1991), the educational and professional background will lead the organisation to isomorphic attitudes in certain ways, thus significantly contribute to the betterment of such organisation.

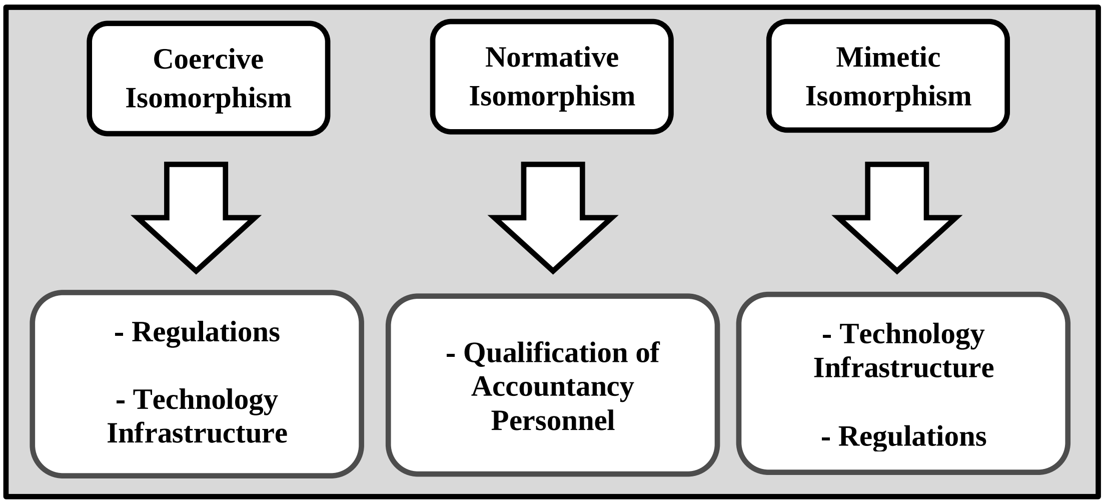
The qualification requirements towards the change of accounting basis are also found in the focus group interview (refer subsection 6.5.2). Therefore, the role of institutional education and professional bodies is essential by providing adequate educational training in influencing the disclosure of accrual accounting information at the SLA. In summary, the normative isomorphism exists in this study which is due to the qualification of accountancy personnel, and to the lesser extent shared from the private sector practices.

c) Mimetic Isomorphism

As argued by DiMaggio and Powell (1991), the imitation of practices might occur when organisational technologies and goals are less superior than the other organisations within the environment. Therefore, it is evident that mimetic isomorphism exists from the results of RQ2, of which the SLA tend to copy the practices of other SLA or their environment that they perceive the most legitimate or powerful. Firstly, in term of the technology infrastructure, some SLA tend to emulate other SLA to employ to the new version of accounting software. This argument is supported from the focus group interview, whereby the tendency of smaller councils to adopt practices of the larger council and vice versa, thus match the principle of mimetic isomorphism. For instance, one SLA which has been using accrual system in the preparation of annual financial statements is planning to embrace the new accounting software to be at par with other SLA's counterparts, although the system was initially designed to cater to the needs of smaller councils (refer subsections 6.7.1.6 and 6.7.3). Secondly, the adoption of PERS by some SLA as the guidelines for the preparation of annual financial statements could also be argued as a form of mimicry isomorphism. The adoption of PERS is regarded as a mean for the public organisations to conform with the practices of the private entities due to lack of accrual specification in the current financial regulations in the SLA.

To conclude, there is a very strong system of pressure and emulation which takes place on the two variables namely technology infrastructure and regulations. Thus, both institutional arrangements support the co-existence coercive and mimetic isomorphism for the technology infrastructure and regulation. The isomorphism impact on the extent of accrual accounting information is illustrated in Figure 5.2 that depicts the relationship between the three variables and institutional arrangement.

Figure 5.2: Isomorphism Impact on the Extent of Accrual Accounting Disclosure in the SLA



*   Source: Author's own research approach

** Technology infrastructure and regulations are reflected in both coercive and mimetic pressures

5.8 SUMMARY

This chapter presents the results of the quantitative phase that meet the first two research objectives by empirically examining the extent of accrual accounting disclosure and investigating the association between the five-SLA specific determinants with the level of accrual accounting disclosure from 2012 to 2015.

The chapter begins with the descriptive information of disclosure index results and the extent of accrual accounting disclosure by category, which answers RQ1. The results of the descriptive analyses show that the extent of accrual accounting disclosure in the annual financial statements of SLA is relatively low with an average result of 36.36%. The achievement of accrual accounting disclosure seems to remain constant over the period four years with a range from 30.23% to 89.13%. The empirical result also show that only two SLA prepare the annual financial statements based on the accrual principle. The majority of the SLA indicate an accrual score of less than 36%, requiring a concerted effort by all authority bodies to move towards accrual system. By category, the highest disclosure is found in the Statement of Budget Performance with an average score of 92.3%. In contrast, the Statement of Changes in Net Asset/Equity and the Cash Flow Statement report the lowest score of 7.7% respectively. The disclosure index is a self-constructed index that consists of a different measurement of accrual items, which could not be directly compared with other prior studies.

The chapter also presents the results of RQ2 by testing the hypotheses that were developed in Chapter 4. Therefore, three statistical tests were conducted namely: univariate, bivariate, and multivariate tests. The univariate analysis shows the descriptive information such as the measurements of mean, median, size range, standard deviation, skewness and kurtosis to provide summaries about the sample and observation of the study. The bivariate analysis reports that the accrual accounting disclosure is positively significant when correlated with technology infrastructure, size of local authorities, qualification of accountancy personnel, and regulations, thus providing some preliminary support for the hypothesis. In contrast, there is a negatively insignificant influence of audit institution size towards the disclosure of accrual accounting information.

A multivariate analysis was carried out using the GLS regression estimated with cluster-robust standard errors, which was applied after performing the diagnostic tests and the underlying assumptions of panel data. It is concluded that technology infrastructure, qualification of accountancy personnel, and regulations are the three significant determinants that are associated positively with the extent of accrual accounting disclosure. However, no significant association is found between the accrual accounting disclosure and audit institution size. The regression findings also show the rejection of the second hypothesis as there is a negative association between the size of local authorities and accrual accounting disclosure, although the result is statistically significant. The evidence presented in this study also reveals that all three institutional arrangement: coercive, normative, and mimetic isomorphism are present in influencing the accrual accounting disclosure.

CHAPTER 6
FOCUS GROUP INTERVIEW

6.1 INTRODUCTION

In the context of this study, focus group interview was designed to complement the quantitative results as presented in Chapter 5. To recap, the findings from RQ1 apparently indicated that only two SLA present their annual financial statements based on the accrual accounting principle. On the other hand, the GLS regression's results in RQ2 revealed that technology infrastructure, qualification of accountancy personnel, and regulations are the three important determinants that are positively associated with the extent of accounting disclosure. This chapter answers RQ3: What are the requirements and extent of influences that contribute to the transition and disclosure of accrual accounting information in the Sarawak local authorities? Therefore, the findings from RQ3 may explain to what extent the requirements as designed by Ouda (2010) can influence the smooth process of the transition towards accrual accounting in consideration of the current state of financial reporting and disclosure practices of the SLA.

The chapter begins by briefly describing the participants in the focus group interview in Section 6.2. The current state of financial reporting and disclosure practices are provided in Section 6.3. Section 6.4 presents the current state and opinions of the interviewees on the accounting and reporting basis adopted by the SLA. Section 6.5 highlights the importance of variables influencing the accrual accounting disclosure. These three earlier sections, i.e., Section 6.3, 6.4 and 6.5 complement the findings from RQ1 and RQ2 and implicitly relating to the literature review (as discussed in Chapter 3). Subsequently, the findings from Section 6.6 to section 6.8 are used to contribute to the process of transition to accrual accounting framework, which is identified from the Ouda's prescriptive model, thus forming the foundation in addressing the third research objective. Section 6.9 briefly discusses the association between the overall results of RQ3 and the theoretical perspectives. Lastly, Section 6.10 concludes the chapter.

6.2 FOCUS GROUP PARTICIPANTS

A total of seven SLA, two government departments, one government-linked company, and one local based audit firm were involved in the focus group interview. By request, two organisations sent two representatives respectively, while the others were represented by one participant, making a total number of thirteen interviewees in the interview session. In the midst of proceeding, however, one interviewee left the session, citing some official commitments to be settled in the office. The high attendance, somehow, brought a bearing to the focus group as the 'expert purposive sampling' allows the researcher to extract detailed information from the interviewees who have specific expertise to meet the aims of the research (Nagirikandalage and Binsardi 2015). In other words, the participants are selected based on their expertise and in-depth knowledge on the SLA accounting practices.

As discussed in Chapter 4, the participants of the focus group were chosen because of several criteria as they held senior positions within their respective organisations. The vast majority of them were involved in the preparation of annual financial statements of their respective local authorities and assumed detailed technical knowledge and significant experience regarding the financial management of the SLA. About the professional qualification, six interviewees were chartered accountants. Therefore, the composition of the thirteen members of focus group interview is detailed as follows:

(i) Six interviewees were the head of finance division;
(ii) One interviewee was the head of audit division with strong accounting background;
(iii) One interviewee held the position of accountant in the SLA;
(iv) One interviewee was an assistant director-in-charge of the SLA's sector;
(v) One interviewee was a senior accountant overseeing the finance and valuation matters of the overall SLA;
(vi) Two interviewees were senior information system executives; and
(vii) One interviewee was the managing partner of the locally based audit firm, with more than 18 years experience in auditing the SLA, as well as assuming the important roles in the Malaysian Institute of Accountants (MIA) for Sarawak regional committee.

6.3 CURRENT STATE OF FINANCIAL REPORTING AND DISCLOSURE PRACTICES

This section provides an overview of the current state of financial reporting and disclosure practices based on Questions 1 and 2 of Part 1: General Questions. Specifically, the interviewees were asked about the types of accounting and budgeting basis, the procedures that govern the format and contents of the annual financial statements, and the financial audit compliance of the current reporting practices.

6.3.1 Basis of Accounting and Budgeting

This subsection discusses the basis of accounting used in the preparation of annual financial statements. They were also asked about the basis that they used in the preparation of annual budgets. The question aims to validate the accounting basis that is currently being used by the SLA. As mentioned in the first two chapters, the financial statements of twenty-four local authorities were prepared using modified cash accounting. On the other hand, the remaining two local authorities adopted modified accrual and accrual accounting respectively as their reporting basis.

According to six interviewees, their annual financial statements and budget reports were both prepared using modified cash accounting, which indeed substantiates the discussion in the earlier chapters. On this note, one of the interviewees reported the accounting treatment and disclosure of revenues and expenses practised by his SLA:

> For the revenue part, whatever amount collected, the revenue is treated on a cash basis. The same thing applies to expenses. For the arrears of assessment rates, we just disclose it in the notes to the account, but no disclosure is made of the compound outstanding because we believe that is just an offer (SLA4).

Such a statement demonstrated that both accounting treatments for revenue and expenses uses cash basis. The arrears of assessment rates were also not properly recognised as receivables in the financial statements. It was also revealed that no disclosure was made of the compound outstanding in the annual financial statements. Consistent with the MPSAS[32], compound, which is a form of penalties as a

[32] As stated in paragraph 89 of the MPSAS 23- Revenue from Non-Exchange Transactions (Taxes and Transfers), fines are recognized as revenue when the receivable meets the definition and satisfies the criteria for recognition as an asset.

consequence of breaching the laws or regulations, should be reported in the notes to the account and not to be recognised as receivables as the offender might have the liberty of paying the fine or going to court for defense.

On the other hand, one SLA, who was seen to adopt accrual basis in the preparation of annual financial statement reported a different treatment on the accounting basis for the license category, which supports the findings of RQ1. The non-accrual treatment is perhaps due to the inability to recognise the point of issuing the license using a time proportion basis. This issue is not surprising as the accrual system is known for its complexity and surrounded by technical and conceptual difficulties (Connolly and Hyndman 2006; Lande and Rocher 2011). Furthermore, the recognised issue might also be caused by the complication of defining the fundamental difference between the spectrums of accounting and basis of timing (IFAC 2000).

It was also revealed by the interviewee that the budget report for his SLA was still prepared based on a modified accrual basis. Nevertheless, the support from the higher authority was apparently evident by urging those SLA to match both financial and budget reports using similar accounting basis. The following is an example of a comment made by one interviewee in addressing the current reporting basis of his SLA:

> For our financial statement, we look forward to have a full-fledged accrual…[somehow], the license is still treated on a cash basis…for the budget preparation, as much as possible we follow the reporting format of the financial statement as it contains the accrual’s elements. For budget purposes, we calculate as much the estimated amount of depreciation, amortisation of development fund, and provision for doubtful debt so that our budget can be matched with any items contained in our year-end financial statement. The SFS [the State Financial Secretary office] has strongly recommended us to do this (SLA1).

The above statement was further validated by one of the experts in the group, who has a profound knowledge of that SLA:

> To myself, some items in their budget are still [recognised] on a cash basis. But, in terms of assessment rates, currently, they [SLA1] do calculate the expected amount from their taxpayer. I would regard that as an element of accrual by calculating of how much the number of the taxpayer against the tax rates, although they anticipate that they will not get the full payment of assessment rates (GOE5).

The above explanation from the interviewee supported the earlier finding of RQ1. From the sample of focus group members, one SLA achieved 89.13%, while the six SLA participated in the interview reported a range from 30.77% to 35.48% of the accrual accounting disclosure score. Another key point is that the majority of the SLA who used cash basis did not transact arrears of assessment rates and rentals, i.e., account receivables in their financial statements instead, treating them as an ordinary disclosure in the notes to the accounts. The problems of the accounting treatment of arrears as practised by the SLA was further explained by the two interviewees (GOE2 and GOE5), in which they revealed that the account receivables as disclosed in the Balance Sheet item were only meant for transacting staff advances and loans.

6.3.2 Guidelines for the Preparation of the Annual Financial Statements

As experienced by some pioneer countries, the disclosure of financial report based on the accrual accounting principles requires an establishment of laws and regulations. For instance, one of the strategies adopted by the New Zealand government for the smooth transition of accrual system was through the enactment of Public Finance Act (Simpkins 1998). Equally important, the development of accrual policies and standards is considered as one of the four critical requirements by the Malaysian government, which consequently facilitates the preparation of government financial report (IPSASB 2013).

However, the development of accrual guidelines was not seen in the case of the SLA. The majority of the interviewees remarked that the preparation of the annual financial statements was solely based on the existing statutory requirements, thus regarded as the most collective responses by the interviewees from the SLA. Given this, one of the interviewees explained the full reference made to the LAFR. SLA4 stated that:

> For us, we refer to the LAFR as it spells out the details to be disclosed in the financial statements, including balance sheet items…it spells out that we have to follow GAAP. With that clause, it gives a leeway for us to adopt any standards…I mean accounting standards like IPSAS or whatnot. But the main priority is to follow regulations that have already been approved by the State government or the State Legislative Assembly. I would say that the LAFR is quite open on the accounting parts, whether you want to use cash or go with accrual accounting (SLA4).

The interviewee's feedback was quite surprising despite the openness of the LAFR towards the adoption of any acceptable accounting standards as the disclosure index results in RQ1 obviously indicate that the majority of the SLA reported a lower accrual disclosure score. The above statement also evidences that the interviewee was aware of the flexibility of the LAFR in enabling the adoption of accrual principle for the preparation of the annual financial statements. But the question remains whether there is any distinction on the accrual guidelines between the LAFR and GAAP. In line with the Regulation 9 of the LAFR which states that the legal provisions shall take precedence over GAAP in the event of a contradiction between the two (refer Chapter 2), another interviewee highlighted that:

> The LAFR, actually states that for us to follow or comply with the Generally Accepted Accounting Principles [GAAP], but somehow, we still need to comply with all the LAFR requirements (SLA6).

The interviewees were then asked about the issuance of any forms of government circular by the higher authorities for the supplementary reference of the SLA in the preparation of their annual financial statements. Ironically, there were mixed views reported on this matter. Four interviewees (SLA4, SLA5, SLA7, and SLA8) revealed that there was a circular issued previously regarding the existence of guidelines for the preparation of annual financial statements. However, it was rebutted by one of the interviewees, GOE 2 who convinced that neither single circular nor instruction has ever been issued so far for the preparation of annual financial statements, except for the budget preparation circular, which has been issued on an annual basis by the State Financial Secretary office (SFS).

On the other hand, three interviewees (GOE2, SLA3, and SLA7) unanimously agreed that the format of annual financial statements was inherited from the previous practices, in such that the reporting format has been done based on cash disclosure. In addition to the LAFR, two interviewees (SLA1 and SLA2) mentioned that their council has long been using PERS as a secondary reference for the reporting format and disclosure, which has brought much influence on the accrual disclosure of the SLA's financial statements.

6.3.3 Financial Audit Compliance

As discussed in Chapter 2, the SLA are bound to undergo numerous audits undertaken by the NAD with the main purpose of ensuring the public resources are consumed reasonably and complied with a certain set of rules and regulations. Therefore, there is a high possibility that the adoption of cash basis leads to various flaws relating to the financial accounting and reporting. The weaknesses of cash accounting are perhaps related to some of the issues found in the audit reports such as unavailability of the creditor information (NAD 2011a), and poor management practices of the SLA's assets (NAD 2013b). Empirically, the organisation that adopts cash accounting basis is argued to struggle with poor quality financial information, such as no information available for assets and liabilities (Ouda 2003).

In view of this, the interviewees were asked whether the current state of financial reporting and disclosure practices would have any unfavourable impacts on either the audit findings or Council's rating performance. Two of the interviewees (SLA4 and GOE2), strongly disagreed with the arguments that the current cash system would have an adverse effect on the Council's rating performance with regards to either the Index Accountability Audit or the Financial Audit. As asserted by one interviewee:

> No, because different audits have different objectives. If project audit, definitely it focusses on the project documentation or project site. So, I could say that the auditor will not zoom into the account transaction of the project… if we follow the financial regulations, I think it is good enough (SLA4).

Four interviewees (SLA3, SLA4, SLA5, and SLA7) claimed that their respective councils have also undergone various audit checking, which includes an examination on the listing of account payables, receivables, and deposits. All of the four interviewees affirmed on the availability of listing for some of those accounts. Arguably, one interviewee admitted that "just a matter of whether we account the asset or not in our balance sheet (SLA4)". This is further validated by another interviewee, who stated that "for record-wise, we have no problems…it is just a matter of having an accurate and complete listing (GOE2)". The above arguments assured that the transition towards accrual accounting would not be much difficulty in consideration of the availability of the basic record of assets and liabilities, but whether such accrual transition could be implemented soon remains unanswered.

6.4 OPINIONS ON CURRENT ACCOUNTING AND REPORTING PRACTICES

This section presents information on the perceptions about the accounting and reporting that are currently being practiced by the SLA, based on Question 3 and 4 of Part 1: General Questions. Specifically, the opinions of interviewees on the strength and shortcomings of both cash and accrual accounting are discussed, which consequently motivate the adoption of any of these two accounting standards. There were eight themes that emerged from the interview, which state four strengths of accrual accounting, two advantages of cash accounting, and two challenges that the interviewees foresee if the SLA were to implement accrual system. The findings of the interviewees are reflected in the following responses:

6.4.1 Comparability

The general beliefs among the interviewees is that cash accounting only allows for a comparison of the financial data among the SLA. Reasonably, the comparison would not be pervasive as the accrual accounting system. The following quote is representative of the responses from one interviewee who highlighted the advantages of financial data underpinned by the accrual basis, which allows for a greater comparability across organisations and nations. As stated by GOE5:

> For the government, I can see that they would be able to develop and further compare with other local authorities, for instance: the US or even Australia. So, we can comparatively know what their directions are, and all that…that is why accrual accounting implementation is very important for the government, otherwise how we could be able to make a comparison (GOE5).

This finding is consistent with Ball and Pflugrath (2012), who state that the use of internationally robust reporting standards such as IPSAS imparts high-quality information, thus, allows greater comparability and analysis across nations, which are unable to be addressed by the use of traditional cash system (Christiaens et al. 2015).

Table 6.1: Data comparability

Advantages of Accrual Accounting	Interviewees
Greater comparability across organisations and nations	GOE5
Information on the directions of other public organisations for comparison	

6.4.2 Better Information

As argued by Laughlin (2012), the most common factor that influences the adoption of accrual accounting is the ability of the system to generate comprehensive information, which trespasses the conventional practices of merely recording expenses and revenues. Despite the unpreparedness in moving towards accrual accounting, two interviewees admitted the strength of accrual accounting in demonstrating an entity's overall financial position, which was consistent with IFAC (2011). This viewpoint was shared in the following responses:

> For the accrual accounting, I know that…it will provide more accurate pictures; it is just that we are not fully ready for the transition (SLA6).

> At the end of the day…if you have a proper accrual accounting; you would be able to know the financial position of the Council, how much is the value of the Council at one particular time (GOE5).

The SLA are responsible for managing the public resources at their disposal to ensure the development and maintenance expenditures are allocated effectively and efficiently. Therefore, accrual accounting through its additional financial disclosure, could assist in resolving any uncertainties or provide better judgements for the SLA to manage their programmes and activities in parallel within the ability of their financial position. However, all those extra information would not be able to be obtained if the SLA are still relying on the current cash system.

Table 6.2: Production of Better Information

Advantages of Accrual Accounting	Interviewees
Accurate data of financial position	SLA6 and GOE5
SLA's financial value at one specific period	GOE5

6.4.3 Governance, Transparency and Accountability

As presented in the literature, one of the main reasons that triggers the momentum of NPM in public sector is the demand for greater accountability on the use of public resources (Hood 1991, 1995). This development has, therefore, witnessed the implementation of accrual accounting system across public sector organisations (Guthrie, Olson and Humprey 1999). Too often, the accrual system is closely linked to the good governance, transparency and accountability by providing a holistic position of the government financial position (NEAC 2010).

These arguments were concurred by the two interviewees (SLA2 and GOE5), who acknowledged the importance of good governance, transparency, and accountability elements. For instance, one interviewee commented that:

> If I may comment, accrual accounting is more on the governance issue. Without accrual accounting, you would hardly know the details of your assets…no governance on those assets. Another thing is the accountability. In my opinion, accrual accounting implementation may not be that easy but it always link with the accountability…accrual accounting has the element of transparency (GOE5).

The interviewees argued about the interconnection between the notion of governance, transparency, and accountability and accrual accounting. The comprehensive disclosure of the financial data under accrual basis reflects the needs of accountability in the SLA, thus mitigates the elements of 'public trust deficits' which seems to be on an increasing trend in Malaysia (Buang 2012).

Table 6.3: Governance, Transparency and Accountability

Advantages of Accrual Accounting	Interviewees
Linkages between accrual accounting and governance, transparency, and accountability	SLA2 and GOE5
Provide details on governing the assets	GOE5

6.4.4 Decision Making

The comprehensiveness of financial report provided by the accrual system permits a sound decision making with regards to the utilisation of scarce public resources (Ball and Pflugrath 2012), as well as measuring the economy, efficiency, and effectiveness of public policies (IFAC 2000). In this respect, one interviewee presented a similar understanding that annual financial statements prepared under accrual accounting basis facilitate the process of decision making by the government, which eventually served the interest of general public, for example:

> Especially regarding the decision making [the robustness of financial information provided under accrual accounting]…decision making for the government, how we can fulfil the needs of the general public, I mean the public interest (SLA2).

The interviewee acknowledged on the decision-usefulness of the accrual system for the government, which will ultimately serve the needs of the general stakeholders for a better service provision. A poor quality financial information would have an adverse effect on the decision-making process of the SLA, particularly in the consumption of public resources.

Table 6.4: Decision Making Facilitation

Advantages of Accrual Accounting	Interviewees
Linkages between accrual accounting and governance, transparency, and accountability	SLA2 and GOE5
Provide details on governing the assets	GOE5

6.4.5 Straightforward and Simplicity

Consistent with Ouda (2003), eight interviewees (SLA2, SLA4, SLA5, SLA6, SLA7, SLA8, GOE2, and GOE5) indicated that cash accounting is straightforward and simple to understand as compared to the accrual system, which drives the SLA to adopt cash system in the preparation of annual financial statements. As an example, one interviewee cited that "I think 90% of cash accounting is due to simplicity…that is the main reason [SLA to adopt cash accounting] (GOE5)". This finding is also in line with the arguments of Hyndman (2016), who found that simplicity, understandability, and objectivity are the main contributors to the preference of using a cash-based system which can be learned from the UK experience.

The above findings are not surprising as many empirical studies have found the preferences of cash system due to its simplicity, particularly in the developing countries (e.g. Adhikari, Kuruppu and Matilal 2013; McLeod and Harun 2014). Additionally, the preference on cash system by the majority of the interviewees is perhaps due to the budget, fiscal, and legal compliance.

Table 6.5: Simplicity of the Cash System

Advantages of Cash Accounting	Interviewees
Easily understood and simple	SLA2, SLA4, SLA5, SLA6, SLA7, SLA8, GOE2, and GOE5

6.4.6 Easy to Use

The interviewees were also asked on the easiness of handling both cash and accrual accounting in the preparation of annual financial statements. As compared to accrual accounting, five interviewees (SLA2, SLA6, SLA8, GOE2, and GOE8) opined that the strength of cash accounting was underpinned by its easiness, which requires less qualified staff to prepare the financial report. Below are few examples affirming this argument: “Non-accountant can also prepare the account….and [hence] by the beginning of January, [the auditor] can commence the financial audit field work (GOE5)”. Similarly, “year-end closing account would also be easy to conduct (GOE2)” if the financial report is prepared using a cash system. IFAC (2000), in their report on the ‘Governmental Financial Reporting’ highlights the advantage of cash system that the compilation of a financial report under cash basis can be performed without being managed by a non-accounting background personnel.

The above comments highlighted that the current cash system practiced by the majority of the SLA is easy to be handled as compared to the accrual system. Furthermore, the use of cash system would require fewer trained accounting personnel, which reduce the SLA’s operating costs if they were to recruit an accounting personnel with a higher academic qualification. These arguments partly explain why the majority of the SLA reported a lower level of accrual disclosure as demonstrated in Section 5.3 of the previous chapter.

Table 6.6: Easiness of the Cash System

Advantages of Cash Accounting	Interviewees
Non-accountant able to prepare financial report	SLA2, SLA6, SLA8, GOE2, and GOE8
Early commencement of audit field work	GOE2

6.4.7 Asset Recognition and Valuation Issues

Another pertinent issue beleaguering the implementation of accrual accounting that was discussed in the literature is linked to the management of fixed and moveable assets (e.g. Blöndal 2003; Lapsley, Mussari and Paulsson 2009; Ouda 2014a). In this regard, one of the problems emerged in the focus group meeting was in the recognition of asset community and valuation of the fixed asset. Here are some of the remarks made by the interviewees:

> We don't have any problems for the asset like furniture and fittings…it is just that on some parts: asset parts, revaluation of assets, and recognition of assets. You know, we purchase trees and do the maintenance as well, it is not cheap (SLA3).

> Road, plant, and equipment. All those things need to be valued before classifying them as assets [capital expenditure] or perhaps just treating as operating expenses [current practice by the majority of the SLA]...[and] somehow, we need expertise right? Like the road for instance, if it doesn't meet certain standards, I think it couldn't be qualified as an asset (SLA4).

> One of the things of our concern is an asset because…in accrual accounting, we need to inventories all our assets on the balance sheet. Then, for the items like land, street lighting, and trees…do we need to inventories for that? (SLA6).

Given the current scenario of the SLA of which majority of them are still using the cash-based system, the confusion on the recognition of such assets is expected. It is well-known that the traditional cash system does not make any demarcation on the accounting treatment between current and capital expenditures (Ouda 2016a). The concerns on the recognition of community asset under accrual basis, such as land and road were also shared by other interviewees (SLA2, SLA5, and SLA8). One interviewee, nonetheless, acknowledged the strength of accrual accounting, particularly to facilitate better asset management (IFAC 2011). The comment includes:

> We don't have a proper record of the land that belongs to the council…we want to disclose it in our financial statement so that we could know how many [number of lands]. Especially, for the top management, they are interested to know the number of the land held by the council or whatever assets that we have. In future, there is a possibility that the ownership of the land may be claimed by others due to improper asset record management as we continue using cash basis (SLA4).

Despite all these obstacles, two interviewees (GOE1 and GOE5) gave recommendations on how to mitigate the issues surrounding on the recognition and valuation of the asset. For instance, the recognition of the certain type of assets depends on the core business of such organisation. Here is one of the suggestions:

> For the biological assets[33], normally we relate them to those agencies like the Agriculture Department or the Veterinary Department, you can refer to the publication or book relating to the 'Financial Management Success' from the perspective of the national audit [NAD]. It highlights the department that is held responsible for recording a certain type of assets (GOE1).

The interviewee, GOE1 also mentioned about the treasury circular on the management of assets, covering the guidelines on tangible (moveable assets, biological assets, and stores) and non-tangibles assets that can be adopted by the respective SLA. Another interviewee, who has vast experience auditing various government agencies, provided a detailed explanation of the issues surrounding the recognition and valuation of land and building. As stated by GOE5:

> According to the PERS, the moment the title is yours and you can derive the economic value from the asset, then it is already yours. So, it has to be accounted in your account. Like in the case of the land, it must be valued at fair value. It means that you have to carry out valuation exercise. Land & Survey department does it…based on our experience dealing with the PNS [Sarawak State Library], the land is not given to the PNS, just vested in them. So, accounting wise, they just do the disclosure and not capitalising it…no requirements because the government still has the rights over the future of the land. So, if you have the rights to manage and have the obligations to pay for the land premium, then you must capitalise it (GOE5).

[33] The prescription for the accounting treatment and disclosures of biological assets, which may be applied to the SLA under the accrual basis of accounting is also contained in the MPSAS 27-Agriculture.

In the above situation, the land recognition would apply if it meets the recognition criteria[34] for example, the land is held for use in the production or supply of goods or services, for rental to others, or for administrative purposes. Given the absence of practical solution in recognising the government capital assets in the literature (Ouda 2016a), the recognition issues would remain problematic and unresolved if the SLA do not have any specific guidelines that govern such matter.

Table 6.7: Asset Recognition and Valuation Issues

Responses of Recognition and Valuation Issues	Interviewees
Non-issue on recognition of furniture and fittings	SLA3
High cost of purchasing and maintaining the trees	SLA3
Account classification of road, plant, and equipment	SLA4
Valuation exercise	SLA4 and GOE5
Inventorying land, street lighting, and trees	SLA4
Asset recognition depends on the nature and function of organisation	GOE1
Guidelines on the recognition of tangible and non-tangible asset	GOEI
Recognition requirements for land and building	GOE5

6.4.8 Disintegration of Accounting and Budgeting Principles

One of the reasons identified in the study for not implementing the accrual accounting information is due to the mismatch of accounting and budgeting principles, i.e., between cash and accrual system, which apparently resulting on the unspent annual budget. This concern was expressed by one interviewee on the issues of preparing financial statements based on accrual accounting, that: “our budget is still on cash accounting, so, do we need to ensure that the actual expenditure match with the budget? I mean, reconciled and disclosed with justification (SLA6)”. In the case of unspent budget arising from the accrual accounting treatment, another interviewee expressed doubt on whether the current year’s unspent budget can be carried forward to the succeeding year’s allocation. The following excerpt is illustrative of this view:

[34] The recognition of land for the Malaysian public sector entities is covered under the MPSAS 17-Property, Plant and Equipment, which may be subjected to the future adoption by the SLA.

> Let's say [we] construct Road A this year, and allocated RM1 million. By the end of the year, [we] only manage to pay half and have to carry forward the remaining allocation. It means that the unpaid amount of RM500,000 becomes payables. Somehow rather, [we] never allocate any sum in the next year's budget because the project is supposed to be completed this year…but the project is not completed yet. So it needs to be carried forward, but initially, there is no budget allocated for that project next year. It will affect the next year's allocation as the current year's budget is not fully utilised (SLA4).

As can be seen above, the long relationship between cash accounting and budget appropriation (IFAC 2000) has probably restricted the misallocation of resources from year to year (Funnell, Cooper and Lee 2012). It is also interesting to note that one interviewee, GOE2 recommended the respective SLA to apply for a revision in the next year's budget to accommodate such payment. Another interviewee, SLA2 suggested accruing such payment under the current years' operating expenses provided the contractual commitment which exists between the SLA and contractor. In the above cases, the findings appear to support the argument by Khan and Mayes (2009) who emphasise on the alignment of accrual accounting and budgeting, apart from budget classification and chart of accounts, before moving into full accrual system. Christiaens and Rommel (2008) also highlight the complication of budgeting some expenses items, which hamper the smooth implementation of accrual accounting.

Table 6.8: Mismatch of Accounting and Budgeting Principles

Responses of Recognition and Valuation Issues	**Interviewees**
Reconcile and disclose with justification for matching accrual financial report and cash budget	SLA6
Reallocated of unspent budget to the succeeding financial year	SLA4
Budget revision to accommodate payment of prior year project	GOE2
Accruing expenses for non-completed project if contractual commitment exists	SLA2

6.5 THE IMPORTANCE OF VARIABLES INFLUENCING THE ACCRUAL ACCOUNTING DISCLOSURES

Question 5 of Part 1: General Question highlights the importance of the factors that influence the disclosure of accrual accounting information in the annual financial statements of the SLA, thus provides additional support for the association between the independent variables and dependent variable in RQ2. The interviewees were asked based on the themes from five independent variables in RQ2, namely: regulations, qualification of accountancy personnel, technology infrastructure, the size of local authorities, and audit institution size.

6.5.1 Regulations

The results for RQ2 highlighted that regulations are the most significant variable that influence the disclosure of accrual accounting information in the SLA's annual financial statements throughout the study period. Three interviewees (SLA 4, SLA6 and SLA7) concurred that regulations could impart significant influence on the accrual accounting disclosure, despite the shortcomings of the LAFR as acknowledged by the two interviewees (SLA8 and GOE2). For instance, one of them commented that "the regulations do not explicitly state the accounting principles (GOE2)". Another interviewee, highlighted the importance of regulations in the perspective of a public official, that "for the government servant, definitely regulations (SLA8)". The same interviewee also commented on the needs to have comprehensive regulations that would then justify the adoption of PERS or any accounting standards that are subsequently leading to the implementation of accrual accounting basis in the SLA. It can be deduced that regulations are the most important determinant affecting the accrual accounting disclosure.

6.5.2 Qualification of Accountancy Personnel

Five interviewees (SLA2, SLA8, GOE1, GOE2, and GOE5) provided their views on the importance of the qualification of accountancy personnel, i.e., academic and professional qualification towards the disclosure of accrual accounting information. One interviewee argued that the implementation of accrual accounting would become a "gone-case (SLA8)" if the person is deemed incapable. The following are another remarks expressed by the interviewees:

> I also opine that the academic and professional background will play very important roles…the accounting personnel would be able to easily understand the accrual things, which later I think they can further develop the system for their respective councils. Although our existing regulations are quite open to the accounting principles, I believe if the personnel is competent enough, he or she would easily understand the details of the generally accounting principles or standards [GAAP]. With the regulations, if our personnel is not competent to do the works, I don't think we can adopt accrual accounting and it will create more problems to us (SLA2).

> From our [the department] perspective, we always emphasise on the academic background. If the personnel is not ready for any changes, I think it would be difficult although the regulations are already in place (GOE1).

> I think I'm looking at the knowledge of the staff, the staff is important. Even though we have these [accrual] modules but at the end of the day, they [non-competent staff] will blame the system. I think sometimes the staff is the key essence (GOE5).

In addition to the regulations, qualification of accountancy personnel is another important requirement acknowledged by the interviewees in the quest for the accrual accounting disclosure. The competency and knowledge of the accountancy personnel must come in parallel with the accrual regulations, apart from the willingness to change and the availability of technology infrastructure. Empirically, the unsuccessful attempt of the Nepalese government to implement accrual system was due to the low level of human resource capacity, despite the handiness of the international accounting standards for the adoption (Adhikari and Mellemvik 2011).

6.5.3 Technology Infrastructure

Similar to RQ2 findings, two interviewees (SLA4 and SLA5) did not place high rank on the importance of technology infrastructure although they acknowledged that technology infrastructure is one the requirements for the transition towards accrual accounting. One of the interviewees, SLA4 commented that the computerised system was merely a tool to perform accounting task. This finding, therefore, concurs with the quantitative result, which places technology infrastructure as the marginally significant factor in influencing the accrual accounting disclosure. Despite its marginally significant attribute, both quantitative and qualitative results indicate that technology infrastructure is still one of the determinants that influence the disclosure of accrual accounting information. Also, the importance of technology infrastructure cannot be simply neglected, which has resulted in a series of delay in the accrual implementation at the level of Federal government in Malaysia (PEMANDU 2017).

6.5.4 Size of Local Authorities

On the other hand, there was a consensus among the majority of the interviewees, in which they perceived the size of local authorities did not exert any significant influence towards accrual accounting disclosure. For example, one of the interviewees, GOE2 commented that the size of local authorities, either it is a big or small council will not have much different, i.e., influencing the accrual accounting disclosure. Other interviewees (SLA7 and GOE1) felt that it was much easier to implement accrual accounting in small council due to lesser transactions as compared to the larger council. Most of the prior studies reveal that larger local government, in particular, the western countries bring much influence on the level of disclosure and financial reporting quality (e.g. Allen and Sanders 1994; Falkman and Tagesson 2008). However, the findings from the focus group interview seem to support the arguments of Martani and Liestiani (2012) that the type or size of the council as in the case of selected local governments in Indonesia does not have much influence to drive the level of disclosure in the financial statements.

In summary, the size of the local authority does not determine the financial reporting quality through the implementation of accrual accounting. One of the interviewees posted a similar reason that the size of the council does not pose any significant influence in moving into the accrual-based system, by the fact that:

> …why the big council can move to accrual despite the innumerable transactions as compared to the small council. The small council is in fact much easy to move to accrual due to lesser transactions as compared to the big Council (GOE1).

6.5.5 Audit Institution Size

Consistent with the quantitative results of RQ2, the responses made by the two interviewees (SLA1 and GOE1) revealed that the audit institution size did not have any stimuli effect on the accrual accounting disclosure. For instance, one interviewee, SLA1 exposed that both international and local audit firms have imparted the same influences on the presentation of annual financial statements, which witnessed significant changes and improvements to the accrual accounting disclosure. This argument is thus consistent with the earlier studies by Copley (1991) and Gordon et al. (2002) Also, a locally based audit firm was praised for being consistent in encouraging the local authority to adopt accrual accounting. The commitment of the local audit firm is asserted by one of the interviewees:

> By looking at the perspective of a financial audit, the one [SLA] influenced by the audit firm, one of them is MBKS. MNZ[35], being their auditor always push them to move to accrual accounting. I notice, the auditor is focussing on the big local authorities or city council (GOE1).

The above findings determine the requirements that are considered to be more important in affecting the accrual accounting disclosures. To recap, the GLS regression results of RQ2 showed that regulations are the most significant variable that influence the accrual accounting disclosure in the SLA's annual financial statements, followed by qualification of accountancy personnel and subsequently technology infrastructure. The findings from the focus group interview seem to concur with the quantitative results that place the same three variables as the important determinants which influence the accrual accounting disclosure.

[35] MNZWAJ Associates, is a local based accounting firm which has over 13 branches throughout Malaysia, among others providing audit and advisory services from private to public organisations. Based on the list of appointed auditors provided by the NAD, MNZWAJ Associates was appointed to conduct financial audit for 1 city and 1 municipal council respectively from 2012 to 2015.

6.6 REFORM DECISION-MAKING: PHASE I

This section explores and detects one of the requirements that contribute to the transition and disclosure of accrual accounting information in the SLA. As discussed in Chapter 3, the prescriptive transition framework as espoused by Ouda (2010) started with the reform-decision making. In this regard, the interviewees were asked about the five themes of reform-decision making by taking into account of the SLA's context. The interviewees were also asked about other requirements that might lead to the change of the accounting system in the respective SLA.

6.6.1 Stimuli

Ouda (2010) argues that at least one stimuli factor should exist in influencing the change of accounting system, as being witnessed in other developed countries such as the New Zealand and Australia. The data from the focus group interview revealed that the level of stimuli factors was not really significant in driving the accounting change of the respective SLA. The stimuli factors are also distinctive from the experiences of other developed and developing nations, which are perhaps due to the different set up of government institutions and environmental context. In this respect, there were three sub-themes which emerged in the discussion of stimulus factors, which are: (i) government transformation programme; (ii) the influence of audit institution; and (iii) financial performance. Here are some of the remarks expressed by the interviewees:

As discussed in Chapter 1, the transition to accrual accounting was announced by the Malaysian government as part of the important features of the financial management reform. In a similar vein, the Sarawak government has also embarked the 'Financial Management Transformation under the Sarawak Civil Service (SCS) 10-20 Action Plan'. Surprisingly, during the interview, only one interviewee from the SLA was aware of the roadmap towards accrual accounting laid out by the Sarawak government for the long-term improvement initiatives from 2014 to 2020. On the other hand, only two interviewees from the group of experts had some knowledge of the commitment of the Sarawak government in driving the financial transformation through a pragmatic approach in implementing the accrual system. It is interesting to note that only two interviewees (SLA1 and SLA4) were well-informed on the accounting reform spearheaded by the PEMANDU for the Federal and State governments. As an example, one interviewee commented that: “PEMANDU in 2011…because of ETP [economic transformation programme], it is about financial transformation (SLA1)”. It is, therefore, suffice to say that the government transformation programme does not stimulate much to the effort of bringing the implementation of accrual system in the context of SLA, but its importance could not be simply denied.

As reported in Chapter 2, various types of audits have been introduced by the NAD such as financial statement/attestation audit, financial management (accountability index) audit (FMAI), and performance audit in the effort to strengthen the financial management of the government entities. Correspondingly, in a series of the audit reports, the Auditor General has strongly advocated the SLA, particularly the city and municipal councils to take the initiative to adopt accrual disclosure in the production of annual financial statements. In this respect, one interviewee, GOE1 reaffirmed the commitment of the NAD, being the change agent, in ensuring the implementation of accrual accounting in place. Additionally, as can be viewed in subsection 6.5.5, the influence of the audit institution, regardless of whether the audit firm is based internationally or locally, has brought similar influences on the disclosure of the SLA’s annual financial statements. Despite the non-influence of the determinants of the size of audit institution, the role of the government and private audit institutions are essential as the change agents of accrual implementation in the SLA.

Thirdly, the focus group interview discussed the current performance of the SLA whether they suffer from any financial shortcomings as a result of using the cash based system. As argued by Ouda (2016b), some less developed countries such as Indonesia, Egypt and Tunisia are shifting to either modified or full accrual basis as a result of the cash system deficiencies. Similarly, the drives to embrace new accounting system have long been witnessed to mitigate financial deficiencies and fiscal stress as being experienced in many developed countries (e.g. Baker and Rennie 2006; Christensen, Lie and Lægreid 2007). However, the response from the focus group interview seems to disagree with the benefit of accounting change in improving the financial situation and performance gap of the SLA. The disagreement on the accounting change was stressed by three interviewees (SLA4, SLA 5 and SLA8) that financial performance of the SLA did not have any significant influence on the drive to move to accrual accounting, although some of the SLA have continuously been reporting financial deficit in the annual reports.

Therefore, two factors have an impact in stimulating the transition towards accrual accounting in the SLA: (i) the government financial transformation programme and (ii) the influence of audit institution. Other stimuli factors that exist in some countries are performance gap, financial crisis, or to the lesser extent, pressures from the international organisations in which are not applicable in the context of SLA.

6.6.2 Knowledge and Awareness

According to Ouda (2010), the success of change in government accounting is contingent upon the support of different groups in disseminating the message to various stakeholders such as the policymaker before it can become an issue and political agenda. Knowledge and awareness of the accounting reform should also be instilled to the major actors, particularly the preparer of the financial report. In this regard, the interviewees were asked about the roles and support given by the higher authorities and professional bodies, such as the MIA in disseminating the message of accrual accounting innovation. Two interviewees (SLA2 and SLA4) were aware of the support given by the MIA, such as organising conference on the accrual accounting for the government sectors and guiding them on the matters related to accrual accounting. The availability of support from the MIA was reaffirmed by one of the interviewees, who is also the MIA committee member, that: “MIA committee is to look after their members…it should be able to attend the help (GOE5)”.

The interviewees were also asked to indicate their knowledge and awareness about the Auditor General’s reports on the recommendation for the SLA to adopt accrual system. Four interviewees (SLA4, SLA5, SLA6, and SLA8) claimed that neither they were aware nor informed by the external auditors of such recommendation. Equally, another interviewee commented that: “I’m not too sure whether the national audit [NAD] has extended the report to us…just what the State internal audit [does], they will make us be involved if the situation is concerning us (GOE3)”. The awareness issue had prompted one of the interviewees to respond that:

> The report [audit recommendations and findings] is published on the website… [and] also, starting next year, we would like to invite you [system developer] to join the exit conference [a meeting to communicate audit results] with the respective local authority so that any technical problems [financial audit findings] can be thrashed out outright (GOE1).

Despite the lack of awareness on the recommendation of the NAD on the adoption of accrual system, the majority of the interviewees agreed that knowledge and awareness taken by the government authorities and the professional bodies to reform current accounting practices in the SLA should be well-disseminated across the SLA. Additionally, the recommendation to implement accrual system is not only available through the audit report or communicated in the audit exit conference, but also through the issuance of an official letter to various government agencies. Therefore, another reform-drivers which were not covered during the interview is the AGD. In October 2017, the AGD issued the official letter that informed the SLA about the encouragement to adopt accrual standards based on MPSAS despite the non-mandatory requirements. The AGD also organised a seminar on the application of MPSAS which is also part of the message dissemination to the SLA on the existence of government accounting innovation.

6.6.3 Persuasion

Before embarking on the accounting innovation, persuading the bureaucrats and legislative bodies is essential for the transition to accrual accounting as the change process would be difficult to proceed without such official approval (Ouda 2010). It was gathered during the interview that the SFS, who acts on behalf of the State government is the authority to decide on the implementation of accrual accounting at the SLA level. Up to the time of the interview, there was no direct persuasion occurred with the SFS despite the strong recommendations by the NAD and AGD to implement accrual system.

Due to this, one interviewee mentioned that: “the MLGH has to wait for the instruction from the State government (SLA2)”. Another interviewee shared the same view: “Yes, from the State [government] as we can’t decide on our own. If the SFS have given the instruction, then we would follow…otherwise, we wouldn’t dare to start implementing accrual (GOE2)”. The above remarks implied that the implementation of accrual system at the SLA level depends on the official directive issued by the State authority, which was yet to happen during the point of the interview despite the strong recommendation from the Federal departments. It can be concluded that the persuasion is unlikely to happen in the case of the SLA as the mechanism for embarking to accrual system seems to be in the direction of 'top-down' approach.

6.6.4 Legitimacy

The legitimacy will take place through negotiation and agreement between the concerned parties (Ouda 2010). In the case of the SLA, the legitimisation process occurs when such official directive is received from the SFS through the MLGH. As stated in subsection 6.6.3 above, the legitimacy stage is yet to be sealed between the MLGH and the SFS. When probed about the efforts taken by the two local authorities that have successfully implemented accrual system, one interviewee, who comes from one of these SLA commented that:

> When we asked the senior staff, they said that the accrual culture was long embedded by the previous mayor and director, maybe both of them came from the private sector. Though not fully complete and proper, we have witnessed that the culture of disclosing elements of assets and liabilities in our financial statements is already there (SLA2).

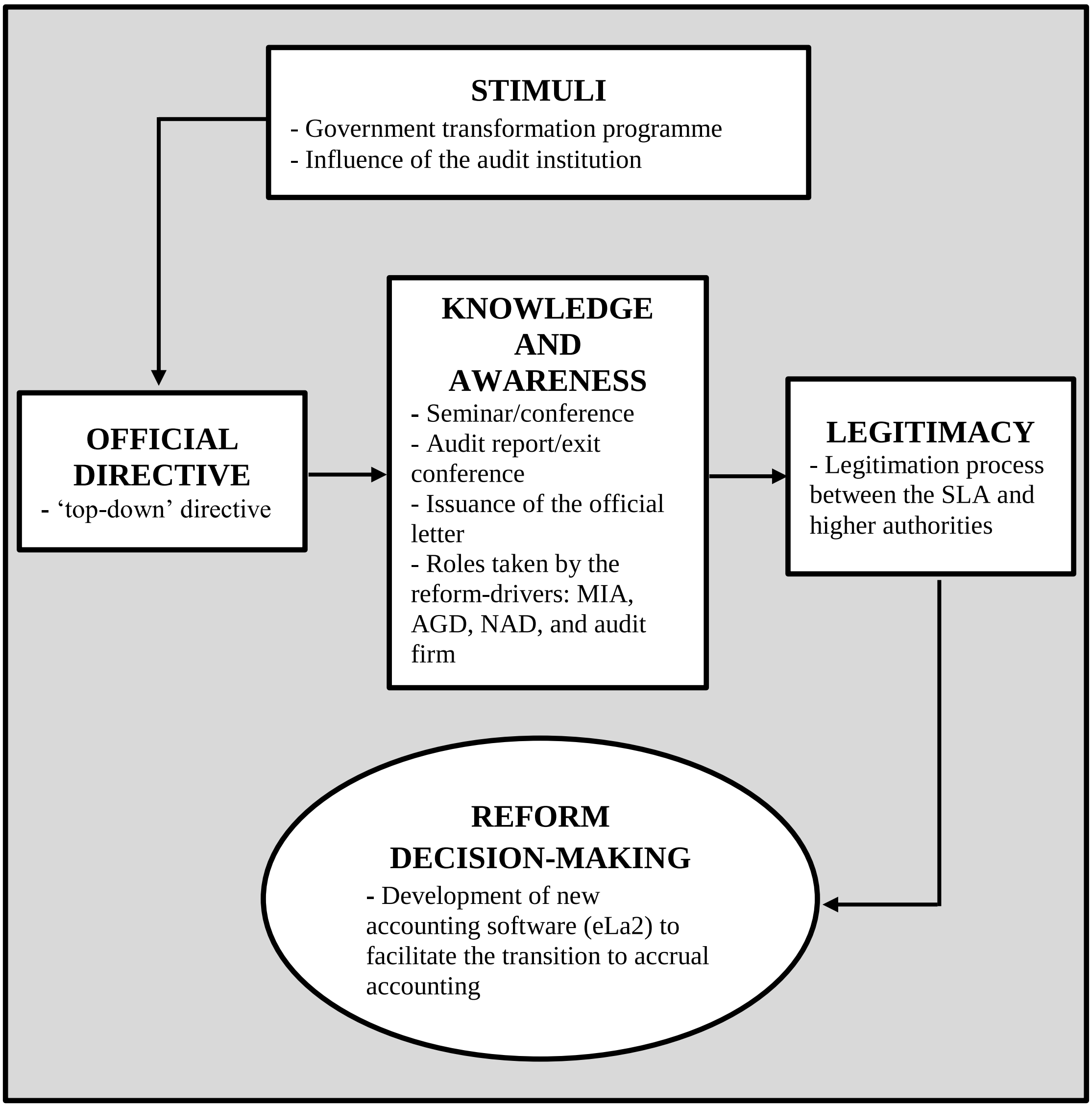
In the absence of the negotiation and agreement between concerning parties, the above response implies that such legitimacy for that local authority to implement accrual system is only based on the directives given by the top management as a result of the corporate culture adopted from the private practices. Nevertheless, the majority of the interviewees acknowledged the importance of having a proper legitimation process, once the directive from the State authority is obtained.

6.6.5 Reform Decision

Ouda (2010) indicates that the reform decision instituting his transition framework is based on the authority type, in such that the decision is made collectively by the technical expertise and the one who possesses status and power. In the context of the SLA, the reform decision was made in the form of revolutionising the computerised accounting system, through the collaboration of the MLGH, the ICTU, and SAINS as the system developer. According to the two interviewees (GOE2 and GOE3), the development of eLA2 was one of the strategies taken that could facilitate the accounting innovation in the SLA and consequently lead to the implementation of accrual system. As discussed in Chapter 4, the development of eLA2 is expected to bring positive outcome on the financial reporting disclosure, thus harmonising and standardising the core business procedures of the SLA. In tandem with the SCS10-20 Action Plan, eLA2 software would also be used in phases to eliminate the shortcomings of the old system and meet the growing expectations of the people (Boon 2012).

Figure 6.1 depicts what has been discussed in Phase 1 of the reform decision-making that applies in the context of SLA. As prescribed by Ouda (2010), ideally there are five components involved in this phase. However, the findings from this section conclude that ‘persuasion’ is not a favourable stimulant that could change the accounting system of the SLA. The findings from the interview also identified that ‘official directive’ is one of the important factors that needs to be incorporated in the SLA’s reform decision-making, which is perhaps due to the strong culture of obeying the directive from the higher authority.

Figure 6.1: SLA Reform Decision-Making: Phase I



Source: Author's own research approach based on the modification to the Ouda's prescriptive model of the reform decision-making: Phase I

6.7 TRANSITION FRAMEWORK: PHASE II

According to Ouda (2010, 75), "the transition phase describes the actual transition activities and starts with the creation of conditions appropriate for the transition to accrual accounting and ends with putting the accrual accounting system into real practice and testing its workability". Essentially, the transition phase encompasses four sub-phases, namely: initial transition phase, establishment phase, conversion phase, and testing and confirmation phase.

6.7.1 Initial Transition Phase

The initial transition phase consists of eleven basic requirement models, which is formulated for creating basic requirements for transition to accrual accounting (Ouda 2010). Due to different set up of public administration and culture, the researcher proposed some modifications to the basic requirements by adding one theme, namely: human resource capacity and changing two existing requirements from the international financial support and budgeting of adoption costs to the State government financial support. Meanwhile, the political and bureaucracy supports are amalgamated under one requirement. The findings of the focus group interview are as follows:

6.7.1.1 Information Technology Capability

The availability of technology infrastructure that can perform a various complex tasks and contain several important features such as fixed asset and debts systems that will determine the success of the transition to accrual system (Ouda 2010). In May 2012, one of the major reform decisions made at the SLA was to introduce the new accounting software, replacing the outdated system that was mainly used by the municipal and district councils in stages, which would impart positive externalities for the accrual adoption. In this respect, the interviewees were asked about the capability of the accounting software that is currently being employed by them, namely: eLA2, SMART2000, and ILAIS. One interviewee, SLA4 stated that: "for eLA2, I don't think it will create many problems because most of the councils have started using eLA2. Furthermore, eLA2 is already designed with some packages of accrual. So, I think it will not have many problems (SLA4)". The readiness of eLA2 to cater for accrual system was also shared by the two interviewees (SLA5 and SLA6), which prompted one interviewee to comment that: “the problem, it is just the operator of the system (SLA8)”.

All of these comments indicated the compatibility of the new accounting to cater for the transition to accrual accounting, although it is yet to be fully designed with the accrual packages. One of the interviewees from the group of experts cited his experience in previously building the debt management module, which forms as one of the important features for the accrual implementation. He said:

> I think those are doable, no problem to us. We have done it with DBKU before with some experiences like building account receivables. I think it will be no issue to us. What we want to know is that if there are any shortfalls, anything that you think important, just let us know (GOE3).

As revealed in subsections 5.6.3.1 and 6.5.3, technology infrastructure is one of the important requirements for the successful transition towards accrual accounting. The success of accrual system also depends upon the capability of the personnel manning the accounting software. More importantly, the development of eLA2 would harmonise the accounting practices of the SLA in producing a similar accrual disclosure in the financial report.

6.7.1.2 Legal Provision

Empirically, legal provision is one the fundamental variables for the successful transition to accrual accounting, as experienced by some developed countries like the New Zealand and Australia, through enacting various legislations to facilitate the implementation of accrual accounting. As such, the interviewees were asked about the extent of a legal provision that governs the reporting system and financial management of the SLA, which might facilitate the transition to accrual accounting. Similar to the findings as revealed in subsections 6.3.2 and 6.5.1, three interviewees (SLA4, SLA5, and SLA6) indicated that the change from cash to accrual accounting would require a proper legal provision, or at least a policy set up by the local administrations, which is apparently unavailable. The policy would at least regularise and guide the SLA in the process of transitioning from cash to accrual system.

In some developed countries, such as Germany and France, the accounting principles and standards are conspicuously laid down by law, which differs from the practice of other countries with a strong inherited tradition of the English common law (Ouda 2014b). As in the case of SLA, this separation and the absence of accrual guidelines have led to the adoption of different accounting standards among them. In consideration of the high impact of regulations towards accrual accounting disclosure, some of the SLA have also resorted to adopt Private Entity Reporting Standards (PERS), which is primarily designed for the private sector entities.

6.7.1.3 Human Resource Capacity

The quantitative result in RQ2 provided evidence that the qualification of accountancy personnel is statistically significant, suggesting the academic qualification and professional membership of the respective financial report preparer are directly associated with the accrual accounting disclosure. The above result notably indicates the importance of human resource capacity, which includes the academic and professional qualification of accountancy personnel, thus justifies the inclusion of human resource capacity in the initial transition phase of the transition to accrual accounting. As suggested by Hepworth (2003), the government should consider hiring a qualified chartered accountant who has undergone various education and training requirements for a smooth operation of such transition. Also, the successful transition would demand a large number of the government officers involved in that reform process (Lande and Rocher 2011).

Given the above arguments, the interviewees were asked about the strength of human resource, specifically regarding the number of accounting personnel involved in the production of the annual financial statements. From the responses given by the interviewees, it is apparent that majority of the municipal and district councils are facing shortages and inexperienced staff. One interviewee lamented that:

> Our workforce is very limited, [and] even after restructuring exercise, there are not many changes [in the workforce]. In my view, firstly, it is better for us to have extra workforce before moving into accrual…now, everything is referred to me, and it is really difficult (SLA8).

The staff shortages problem was reaffirmed by three interviewees (GOE1, GOE2, and GOE5). One of them, GOE2 commented that: “yes, he’s alone doing all those complicated accounting jobs, considered as a one-man show and mostly the small councils do not have experienced staff (GOE2)”. Similarly, one interviewee, GOE5 commented that: “the council, which the staff does not have strong accounting background will get problems later (GOE5)”. In fact, the problem of shortages and the inexperienced staff were also echoed by three interviewees (SLA5, SLA 6 and SLA7). Consistent with Pina, Torres, and Yetano (2009), most local governments in the EU countries also encounter staff shortages, particularly trained in accrual accounting because most of them are coming from the public and administrative laws background.

Apart from that, there were other pertinent issues identified by the interviewees which had to be considered by the higher authorities, in such that most of the staff involved in the production of annual financial statements are from the non-accounting background. The following quotation explains the situation: “at least we need one person to have strong accounting background for the preparation of final account (SLA2)”. A further two interviewees (SLA5 and SLA6) expressed their concerns that some of the account unit heads, who were helping them in preparing the final accounts were from the non-accounting academic background. On that basis, one interviewee, GOE1 suggested for the SLA to consider recruiting the council’s treasurer who at least has a Bachelor’s degree in accounting. Nevertheless, the additional recruitment of government accounting specialist would require a substantial cost incurred by the SLA. Another possible remedy is to opt for an ‘in-house training’, but how far can it go will remain debatable.

Due to the issue of human resource capacity, the interviewees were also probed about the possibility of having a work centralisation on the preparation of the annual financial statements, which is handled by the MLGH. In response to this, five interviewees (SLA4, SLA6, SLA8, GOE1, and GOE2) disagreed with the centralisation idea leading to one of them who mentioned: “no, it can’t as each council represents different entity. Furthermore, the audit report is tabled separately in the MMKN (SLA4)”. Another two interviewees commented that: ‘impossible [as] that is under the responsibility of each council (GOE2)” and “MLGH, they have no direct interest on the annual financial statements (GOE1)". In principle, the majority of the interviewees disagreed with the work centralisation due to some reasons despite the suggestion that it may facilitate the process of transition to accrual accounting.

6.7.1.4 Political and Bureaucracy Supports

As experienced in the UK, New Zealand and Australia, the synergy between political and bureaucracy support has accelerated to the successful implementation of accrual accounting as a result of the coercive power, procedural and technical support (Ouda 2010). In the context of Malaysia, the politicians and bureaucrats have also played an important role in the development of accrual accounting, by introducing various financial transformation programmes.

Findings from the interview revealed that one of the SLA who has successfully implemented accrual accounting enjoyed a full political and bureaucracy supports, in such that: "we have full support from the top management and Minister-in-charge (SLA2)". Another interviewee also shared a similar view that: "even the top management, which includes our councillors[36] and the secretary, they give full support and are willing to help on the accrual implementation (SLA4)". While, one of the participants, SLA6 commented that the support was only received from the bureaucrat, i.e., the council's secretary, who was from the organisation that practise accrual system. Nevertheless, the remaining interviewees from the SLA expressed their unawareness of the support given by the politicians or the bureaucrats for them to move to accrual system. Despite the non-awareness feedback from some of the interviewees, the political and bureaucracy supports can be seen at the Sarawak government level through the launching of the civil service transformation agenda in 2012.

6.7.1.5 Professional and Academic Supports

The role of professional and academic bodies in assisting, such as rendering professional consultancy and designing the accounting standards and policies are essential for the smooth transition to accrual accounting (Ouda 2010). As previously

[36] As stated in Chapter 2, the Councillors are the advisory committee, which are appointed based on the political affiliation with the ruling government and their responsibilities are to determine policy and other strategic matters of the SLA.

indicated in subsection 6.6.2, there were some involvements of the professional accounting body in assisting the public sector, such as organising conference or specifically, lending support to its members “in terms of training (GOE5)”. Unlike in the past, the involvement of the professional bodies such as the MIA and Malaysian Association of Certified Public Accountants (MACPA) was hardly felt in the development of local authorities’ financial statements (Coombs and Tayib 2000). Despite all these, four interviewees (SLA2, SLA4, SLA5, and SLA7) admitted the lack of close collaboration with the professional accounting bodies in Malaysia towards rendering support to the SLA. For instance, one interviewee quoted that: “we never request any assistance [from the MIA] to guide us to interpret one of the principles [accounting standards] (SLA4)”.

In another matter, there was an evidence indicated the academic support, particularly regarding public sector accounting research. As mentioned by SLA2, that:

> Let’s take our council as a case, a lot of studies has been carried out by UiTM [MARA University of Technology], which proves that we have long been practising some accrual elements since 1988. You can refer to the financial statements; there are some accrual elements inside the reports (SLA2).

6.7.1.6 State Government Financial Support

Many empirical studies argue that cost issue is one of the major obstacles found in delaying the implementation of accrual accounting in the public sector (e.g. Hyndman and Connolly 2011; Lande and Rocher 2011). Given the cost consideration issue, some developing countries have relied heavily on the financial support from the international financing institutions, such as the World Bank and the IMF for embarking the accrual accounting implementation (Ouda 2010; Adhikari, Kuruppu and Matilal 2013).

It is interesting to note from the interview that majority of the interviewees mentioned that the success of accrual implementation highly depended on the financial assistance from the State government, which included a government grant for the development of accounting software. For instance, one interviewee, SLA8 commented that the district council was heavily relying on the government support in financing the accrual implementation. The financial support was not applicable, however, in the case of either city or municipal councils. As expressed by SLA4: “transition to accrual, I think definitely the council [bear the cost] (SLA4)”.

In a related matter, there were different mechanisms that exist regarding the financing of the development of eLA2. It was found that some councils were totally using their internal funding. This viewpoint was shared by one interviewee that: “for the big Council [city and municipal councils], normally the State government will not sponsor (GOE2)”. Another interviewee, which his council has yet implemented eLA2, commented that: “we don’t have any financial support from the State government, but we will put up in our annual budget (SLA1)”. The issue of government financial support on eLA2 has prompted one interviewee to clarify its development and implementation cost. GOE3 said that:

> When we deal with the system, we have a development cost, and it is charged once. For the district council, the implementation fee is free for them [subsidised by the State government]. But, for the bigger council [city and municipal councils], they have to pay the implementation fee like training, data conversion, and…it is more on the operational matters, other than that, they are getting a free license. For district council, financially they are not standing well, that is why the government wants to help them, and we give them free hardware and everything so that they can move to the new system (GOE3).

There are different funding mechanisms between the three types of SLA. Due to a better financial position, the cost involved in the transition to accrual accounting, which includes the development of computerised accounting system is solely borne by the city council using its internal funding. Apparently however, a financial reliance to the international bodies might not be relevant to the SLA, which perhaps could be subject to certain restrictions and legal requirements.

6.7.1.7 Communication Strategy

The experiences of the pioneer countries have shown that communication on the accounting innovation is vital, by not only disseminating information to the top government officials but also to the lower level staff to promote positive behaviour towards the change (Ouda 2010). During the interview, the interviewees were asked to state the extent of communication on the effort to implement accrual accounting between the councils’ councillors, top management, and staff. Five interviewees gave favourable feedback about the communication strategy for transition to accrual accounting, which has taken place among the higher authority, either in formal or informal approaches. Despite the inexistence of official direct persuasion (refer subsection 6.6.3), one interviewee stated that: “actually, we have asked the SFS. They said just wait for the instruction from them. Once they give the green light, then we can start [directive to implement accrual accounting] (GOE1)”.

While, one of the interviewees (SLA4) reiterated that the communication level on his council’s plan to move to accrual system had not only brought to the attention of politicians and bureaucrats but also was cascaded to the lower level staff (refer subsection 6.7.1.4). On the other hand, two interviewees (SLA5 and SLA6) commented that the communication level was only up to the extent of the top management. One of them explained that: “although there is no formal directive about this matter, the top management has conveyed it [communication about the change process] before and given full support for us to move to accrual (SLA5)”. In contrast, two interviewees (SLA7 and SLA8) highlighted: “no” feedback when probed on the level of communication strategy for their respective councils.

The introduction of accrual accounting should be seen as a collective involvement of various concerned parties that involve multiple communication channels from the lower level government staff up to the policymaker. More importantly, the intention of adopting the accrual system has come to the attention of the higher authorities despite the non-official direct persuasion. While expecting the official directive, the communication effort has occurred in some SLA to keep all participating stakeholders informed on the accrual developments.

6.7.1.8 Management Culture Change

The journey of accounting reform, which is in parallel with the notion of NPM, should come along with the change in management culture, and view the contribution of accrual system trespass beyond the scope of reporting requirements per se (Ouda 2010). The change, which can be linked to the reform of the financial management landscape, involves best management practices adopted from the private sectors (Hood 1995; Guthrie, Olson and Humprey 1999). Notably, the management culture change can be seen as in the case of two councils (SLA2 and SLA6), which indicated that the working experiences of the top management have brought to a positive impact on the promulgation of the accrual culture. Consistent with Ouda (2014b), the skills, knowledge, and experiences that have already been acquired in the private practice can be harnessed by the public sector, which positively accelerates the transition process to accrual system.

In contrast, other interviewees from the SLA did not indicate much on the extent of management culture change, which prompted one interviewee, GOE5 to comment that: "if there is no exposure, you will not think about accrual (GOE5)". In this respect, the management of SLA needs information on the accrual advantages which then can be cascaded within the whole entity. In particularly, the exposure creates knowledge among the financial report preparer, and several initiatives should be executed such as the 'Financial Management Improvement Programme' in Australia in the 1980s in creating the culture change.

6.7.1.9 Willingness to Change

According to Ouda (2010, 78), "the staff motivation, the will, and staff training and qualification are crucial basic requirements for the transition to accrual accounting", which applies to all staff who are involved in the reform journey. Subject to the amendments to the regulations and directive from the higher authority, the findings from the interview revealed that there was a positive reaction on the willingness to change from cash to accrual system from the city and municipal councils. This willingness was apparent in the following responses:

> On our side, we just prepare ourselves to be ready for accrual, prepare and get ourselves ready. We have told the Audit's director [the NAD] that we are waiting for the instruction from the top management. We don't mind to be the pilot project for accrual implementation. Our system is ready, the human is also ready, just waiting for the regulations [the LAFR] and directive (SLA4).
>
> There is a way, and we have seen the light at the end of the tunnel; I think we can move to accrual accounting (SLA3).
>
> Somehow, we have to be prepared for any moves towards that [transition to accrual accounting. We can use our new accounting system [eLA2] to do the accounting part processes (SLA6).

Nevertheless, the willingness to change to accrual system was not apparently seen as in the case of district councils, despite the fact that there were little differences regarding the level of accrual accounting disclosure among the three types of SLA (refer subsection 5.3.1). Furthermore, the number of transactions in the smaller SLA is comparatively lesser, which makes the process much easier during the conversion stage to the accrual system (refer subsection 6.5.3). Here is the remark from one of the interviewees who stated: “maybe improvements to the existing cash system (SLA8)”.

Another interviewee, who has been dealing with all councils in the development of eLA2 expressed that:

> Some of the staff, the mind-set is still on the cash basis. They keep asking us why and when they make payment, they have to register [payment transaction] via the account payable module [new features of eLA2], and why can’t just have Debit-expenses, Credit- bank [double entry for cash accounting]. The moment they are asking that, you know that they are treating it as a direct payment (GOE4).

It is interesting to note that the willingness to change is also linked to the ‘directive from higher authority’, which justifies the incorporation of the official directive as the new requirement in the reform decision-making: phase I. Most of the participants in the interview (SLA2, SLA3, SLA4, SLA7, GOE2, and GOE5) felt that the SLA should voluntarily implement accrual accounting if they have received the official directive from the SFS office (refer subsection 6.6.3). Their willingness to change upon obtaining such directive commensurates with the financial support is indicated as following: “an honour to serve (SLA2)”, and, “that’s why I said, we are just waiting for the directive and policy (SLA4)”, The interviewee also responded that: “on our part, I think we still need the blessings from the SFS in order to be safe, [as] we still need the allocation and all funding things from them (GOE2)”. The above comments imply a less resistance to the implementation of accrual system due to the culture of obedience that has been long-instilled in the civil service.

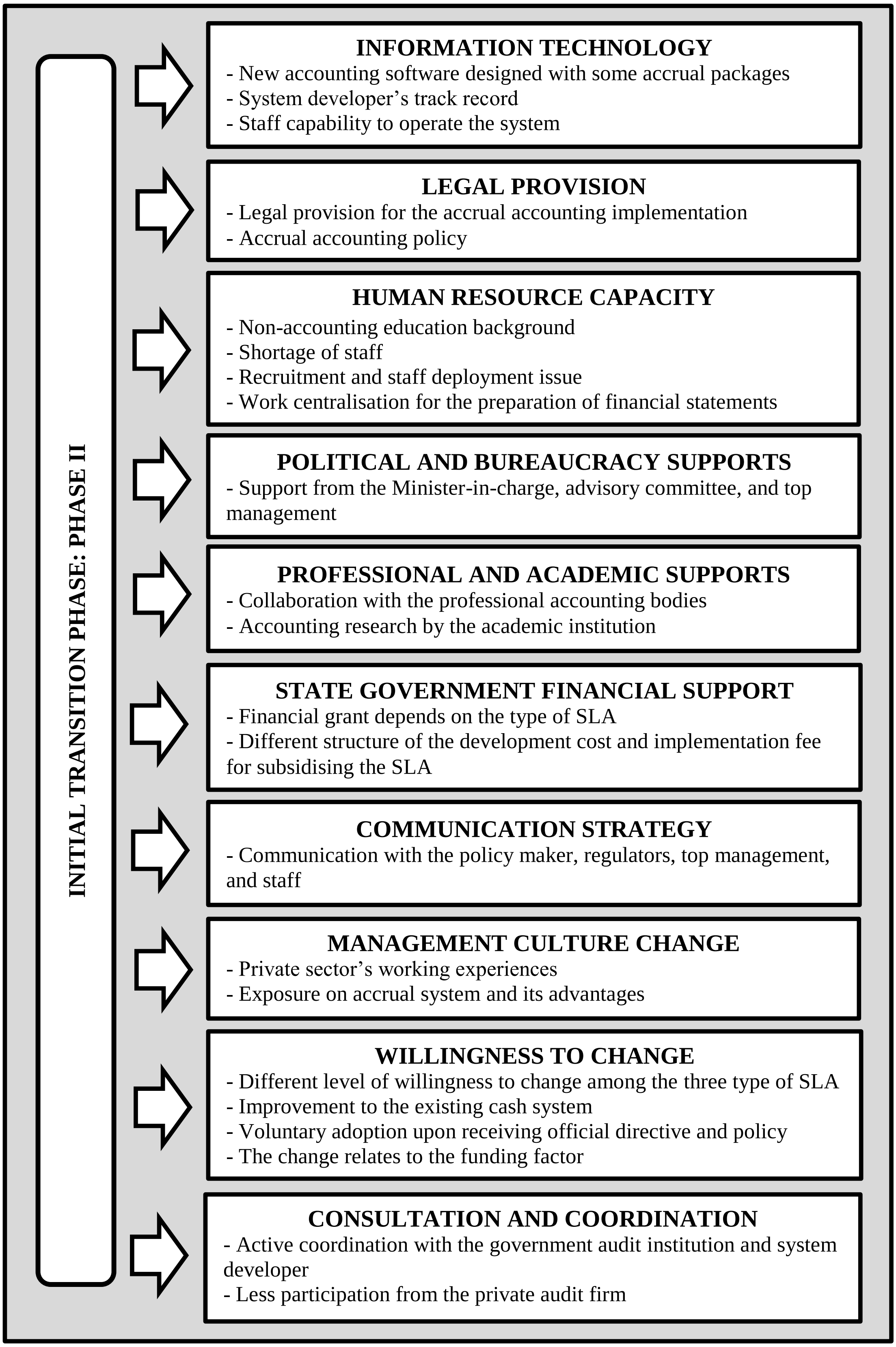
6.7.1.10 Consultation and Coordination

Consultation and coordination across government entities form fundamental requirements for the smooth transition to accrual accounting (Ouda 2010). In the context of the SLA, the consultation and coordination process require involvement from various government entities, such as the NAD, SFS, MLGH, ICTU, and SAINS, as well as the professional and academic bodies, and private audit firms. The coordination and consultation in moving towards accrual accounting can be conceived as in existence, whereby one interviewee, clarified that: “yes, there is…during exit conference. Even the director of audit [NAD] always advise the State [government] to do so, and the same thing applies to the local authorities (GOE2)”. The consultation and coordination also occurred in the form of development of the new accounting software, during the development stage between the SLA and system developer.

However, the role of private audit firms in promulgating the accrual practices was not felt by some of the SLA. For instance, four interviewees (SLA4, SLA6, SLA7 and SLA8) commented that there was no communication between them and the private audit firms for the transition to accrual accounting. Based on the overall findings, nevertheless, it can be deduced that the level of consultation and coordination is still at a mediocre level, which does not involve active participation from the private entities, such as external audit institution.

Figure 6.2 illustrates the ten requirements identified from the interview, which have many similarities with the Ouda’s prescriptive model of the initial transition phase.

Figure 6.2: SLA Initial Transition Phase: Phase II



Source: Author's own research approach based on the modification to the Ouda's prescriptive model of the initial transition phase: Phase II

6.7.2 Establishment Phase

This subsection presents the interview's findings on the basic technical and professional requirements that could facilitate the transition to accrual accounting in the SLA. Unlike previous contingency models, the establishment phase in the Ouda's framework, among others, deals with the identification of fundamental accounting issues such as the public assets and budget integration. In this study, there are nine basic themes identified to situate the financial reporting and disclosure practices of the SLA, which were modified based on the Ouda's prescriptive model. The requirements are listed as follows:

6.7.2.1 Asset Register

Chapter 3 deliberates why many countries decide to implement accrual system as it provides better information on the management of assets. According to Ouda (2010, 81), the transition to accrual accounting requires the government entities "to identify and value their assets in order to be able to prepare the asset register", which seemed to be the most difficult task. As revealed in subsection 6.4.7, two of the challenges encountered by the SLA were the asset recognition and valuation, specifically when dealing with the community and biological assets.

Essentially, the interviewees were asked about the extent of the availability of asset register in their respective councils. Six interviewees (SLA3, SLA4, SLA5, SLA6, SLA7, and SLA8) indicated the availability of asset register being maintained by the respective councils despite using cash basis accounting. The availability of basic asset register was further confirmed by another two interviewees (GOE1 and GOE2). However, the two of them mentioned on the accuracy of asset record and the inability to capitalise the asset in the financial statements. Given this, one interviewee provided his comment on the existing problems encountered by the SLA:

> The module [asset register] is not linked [with the financial accounting module] because we do not activate the provisioning feature. If we were to run on an accrual basis, we would have to activate the provisional sum or depreciation features [contained in the fixed asset module], then, automatically the system would be able to capture (SLA4).

The difficulty of dealing with non-financial assets such as depreciation has been acknowledged by some renowned authors who state that it is the most complex transformation for the implementation of accrual accounting for the local governments (Guthrie 1998; Pina, Torres and Yetano 2009). When probed about the flexibility and strength of the fixed asset module in the eLA2, one interviewee, who is also the system developer responded:

> Currently, the system serves more like a fixed asset register only. If they need to run depreciation, we can activate it. This moment we consider it as a cash basis because of how they are currently practising it, but it is quite easy to switch to accrual. Now, they don't even have the fixed asset account in the system, and it is all parked under expenses [operating expenditure] (GOE4).

Another interviewee, GOE5 who has vast experiences in dealing with the SLA, also commented that:

> It means the module [fixed asset] is stand-alone, not linked to the accounting module. They are not sure [the SLA] whether they are ready for accrual (GOE5).

The SLA's aspiration to adopt accrual system would not be an extremely difficult journey given the availability of asset record despite the arguments of its accuracy. However, in the light of the asset module capacity to mobilise parallel on a dual accounting basis, this aspiration would not be materialised if the SLA's preferences were still driven by the old accounting practices.

6.7.2.2 Receivables, Payables, Development, and Trust Accounts

The disclosure index results from RQ1 (refer Chapter 5) showed that the majority of the SLA do not completely transact the account receivables, payables, and development (community asset and deferred fund) using an accrual system. During the interview, the interviewees were asked to provide the current state of that three accounts, such as the availability of keeping an updated listing and also the accounting treatment. Three interviewees (SLA4, SLA5, and SLA6) presented a similar response "yes" that the listing for account receivables and development project is incorporated in the eLA2, and GOE2 further confirmed this. The availability of listing for the two accounts however, does not impart much to the accrual disclosure of those SLA.

Nevertheless, trust account which consists of deposits and public and government trusts were maintained properly according to the term of that trusts. Surprisingly, there was a different response to the availability of listing for the account payables. With regards to the account payables, one interviewee presented the overview of the accounting treatment practised by the SLA by mentioning that:

> The way they post the transaction, the behaviour looks like a cash basis. For example, when they register the invoice, the transaction is Debit- expenses, Credit- creditors [double entry]. And, when the payment is ready, they register the invoice and pay it directly out [simultaneous transactions using the same date]. So, that account payables become more like a transitional account only, and it doesn't serve the accrual purposes (GOE4).

The reason for nondisclosure of account payables has prompted another interviewee, GOE5 to comment that "when we ask for the ageing report [account payables], they could not provide because they [SLA] always work on a cash basis (GOE5)". The non-availability of the ageing report is further clarified by another interviewee, that: "it [account payables] is cleared on the same day (GOE4)".

The findings above revealed different scenario on the availability of listing for the receivables, payables and development accounts. For this reason, the work process of transacting such accounts and timing of recognising financial transactions determine the accounting basis adopted by the respective SLA. It is also important to let the SLA be aware that the recognition criteria for all assets, liabilities, revenues, and expenses as the underlying economic events will occur and not when the cash is affected.

6.7.2.3 Opening Balances

It is always argued that the cash basis accounting does not seem able to provide opening balances information for assets and liabilities, where both accounts are considered as basic disclosure requirements in the balance sheet under an accrual system (Ouda 2010). In corresponding with the earlier finding (refer subsection 6.7.2.2), GOE 4 again commented on the unavailability of opening balances for short-term liabilities as a result of timing recognition issues by saying that:

> It [payment process] is cleared on the same day, so of course, account payables is zero. The one [transaction] not ready for payment, they just put in the drawer [withhold the posting of payment transaction to allow the system works as cash basis] (GOE4)".

Identification of opening balances would require the SLA to provide a detailed listing of all types of assets and liabilities, which some of the information are available (refer subsection 6.3.3 and 6.7.2.2). Despite the time-consuming task (Khan and Mayes 2009), it is necessary for the SLA to establish the opening balance sheet depending on the complexities of the accounts on a sector-by-sector basis (Chan 2006).

6.7.2.4 Chart of Accounts and Accrual General Ledger

Both chart of accounts and general ledger must be designed in uniformity, which among others encompass coding structure, objectives, and programmes that portray the overall government programmes and also tailor to the budgetary approvals as well as meet the disclosure requirements of the annual financial statements (Ouda 2010). In Europe for instance, the majority of the local governments have a mandatory chart of accounts for homogeneity purposes (Brusca et al. 2015). In this respect, the interviewees were asked about the structure of the chart of accounts adopted by the SLA and the adaptability of general ledger for the transition to accrual accounting. Responses from the interview indicated that the chart of account at main category had been standardised across all councils. One group of experts being interviewed, GOE4 described the structure and approval responsibilities of the chart of account as follows:

> Not at the lowest level, only to certain level [standard coding at the main level]. The one not consistent is the Trust account that for those with different nature of the special project. They [SLA] can create [code] at the lower level, and sub-code, and [creation of code] is assignable depending on their request (GOE4).

The SLA are given the authority to create certain code level for standardising the chart of accounts. The alignment of the chart of accounts can be linked to Khan and Mayes (2009) who argue its importance for a smooth transition to accrual accounting. Regarding the availability of accrual general ledger, the same interviewee, who has vast knowledge in the development of computerised accounting system stated that: "accrual to me is just the practice that you adopt and principles that you follow (GOE4)". The statement from GOE4 impliedly suggested that the current general ledger could accommodate the basic requirement of accrual accounting. Furthermore, the general ledger has also been "standardised (GOE2)" for the majority of the SLA.

6.7.2.5 Accounting and Budgeting Consistency

As experienced by the pioneer countries, one of the requirements to succeed the transition to accrual accounting is to integrate and harmonise the accounting and budgeting systems (Ouda 2010). In the context of the SLA, one of the main concerns in moving towards accrual accounting is the mismatch of budgeting and accounting principles (refer subsection 6.4.8), thus giving doubt on the smooth transition. In a similar case, one local authority who has successfully implemented accrual system also encountered an incomplete integration between the accounting and budgeting systems (refer subsection 6.3.1).

Despite all these concerns, two interviewees (SLA4 and GOE4) expressed their optimism that the integration between accounting and budgeting systems can be done through the support of the accounting software. In Germany for instance, which cash basis budget is still prevalent in some cities, the mismatch between budgeting and accounting principles is not an obstacle to the adoption of a system closer to the private style (Pina, Torres and Yetano 2009). The taboo that cash budget as a legal compliance for utilising the public funds does not hamper them to initiate steps towards the implementation of accrual basis, which also can be emulated by the SLA.

6.7.2.6 Tackling Specific Accounting Issues

According to Ouda (2010, 84), "the determination of the boundaries of the government reporting entities" includes mitigating specific accounting issues such as the valuation of a fixed asset is fundamental to accrual accounting implementation. Apart from the asset recognition and valuation issues (refer subsection 6.4.7), and disintegration of accounting and budgeting system (refer subsections 6.4.8 and 6.7.2.5), there were some additional items identified in the interview that could hinder the transition to accrual accounting.

One of the controversies embroiled by the SLA is on the usage of the contra account that was previously designed in the ILAIS software. One interviewee raised his concern about its functionalities, noting that: "contra account creates many problems, a lot of hanging [unreconciled] transactions (SLA2)", which brings about the reconciliation issues as reported in the audit findings. Another interviewee expressed similar grouses on the effectiveness of using the contra account, that: "too many transactions go to deposit x [contra account], like overpaid or underpaid, even you have to do more transactions than usual (SLA4)". In response to the contra account, one interviewee, who is also an IT specialist explained the improvement that has been made on its functionalities as contained in eLA2, which simplifies the work process. He said that:

> There is one contra account for refundable deposit…It is used for communicating with the rating system. So, it allows for example: in the case of an overpayment, that overpayment amount can be used to settle the future bill. We have a function for the non-cash receipt, so it goes through that contra account. It will be knocked-off, rather than issuing out the cheque (GOE4).

The same interviewee further clarified, that:

> You need that contra account for certain things, but the one [contra account] within the financial accounting, that one we have already removed. The one between fixed asset, f/d [fixed deposit], a/p [account payables], a/r [account receivables], and those things are removed. So, it is currently used only for communicating with the licensing system [in addition to the rating system] (GOE4).

The main functionality of the contra account is for the communication between the financial accounting system, and other submodules such as the rating and licensing systems. The uniqueness of this account is to simplify certain unnecessary work processes. For instance, any overpayment cases of assessment rates can be used to offset the current or past year bills or to refund upon the request of the ratepayer.

Another pertinent accounting issues discussed in the interview is on the reduction of assessment rates arising from the announcement by the former Chief Minister of Sarawak. Four interviewees (SLA1, SLA4, SLA5, and SLA8) highlighted their predicaments in dealing with the rates reduction. The following comments elaborate this matter further: “not so much issue on the advance payment. It is just a matter of daily process (SLA1)”, “internal process is so tedious, so many reversals (SLA4)”, “especially during the posting stage (SLA5)”, and “refund process as it has different rates (SLA8)”.

Here are the explanation relating to the assessment rates reduction, which its tedious process can be mitigated through the creation of the contra account:

> …the reduction is a very complicated process and there are 6 cases that we have to go through. Let‘s say your bill is RM100 and you get a refund of 90%. If you have paid initially, then you will be refunded RM90, but the council can offset [the refundable amount] to any of the current bill or past year bills, or some leftover or balances. The council can put it as a refund to the payer. So, I think this contra account helps to monitor the refund process [advantage of creating contra account] (GOE3).

In principle, the timing of recognising financial transactions determines the spectrum of accounting bases adopted by the public sector entities (IFAC 2000). Thus, the timing of revenue recognition for licensing is an important subject that needs to be addressed by the SLA. In the absence of comprehensive accounting policies and guidelines, this issue can be regarded as one of the contributors affecting one SLA, that has implemented accrual system for unable to achieve 100% accrual compliance result (refer RQ1’s findings in Chapter 5). In this respect, the interviewees were asked about the work process and challenges that they encounter, including the applicability of the provisions of the Licensing By-laws to enable the researcher to extract more details about the issues. Here is how the interviewees perceived their concerns:

> What is your message? How do you treat it? Is it accrual? You treat it as accrual because normally they will pay up. Then, you know they want to continue the license, if they don’t want to pay, they don’t even pay, and that is a bit tricky. Currently, we are using Stafs [ILAIS], [and it] should be interfaced [with the financial accounting system]…that is the one of the reasons we could not accrue [license revenue] (SLA3).

> It’s quite troublesome, but the licensees, if they don’t want to renew the license, straight away we consider them as trading illegally. We don’t treat them as receivables or arrears for that kind of license. But, if they continue not paying the license until next year, what is the accounting treatment for that? Do we consider that outstanding license as an accrual? Receivables or the license is considered as cancellation (SLA4).

In response to the comments by the two interviewees, one of the participants, GOE3 explained the work process on the termination of the license by elaborating that:

> About the licensing system, it's a bit different when you mention that the licensing to be on accrual because when the person wants to renew…at the time [upon expiry], he has an option either to renew or not. It's not like the assessment [rates], once the license is terminated, it can go anywhere [failing to comply with the By-laws]. Those things should go into enforcement and compound process. I know [the SLA] hard to do the year-end closing. But, we can proportionately [prorating the revenue]…one is to recognise as current income and the other half is to treat as future income [advance payment, provided that the license is not terminated] (GOE3).

To overcome the problems as mentioned above, one of the requirements that shall be in place is the ability of the computerised accounting system to proportionate revenue collection. Another recommendation is to review the work process and probably, revise the Licensing By-laws for the proper recognition of license revenue, thus overcome the timing difficulties arising from the year-end transactions. Due to this, GOE5, who has a profound knowledge of the accounting practices of the SLA said:

> I think the issue is not on an accrual basis. The moment that they don't pay, there is no accrual. Be mindful of the period, and that is the most important, the period…if they pay in January for the whole year, fine, you can do that. But if they pay the full amount in March [for instance], what will happen to the last two months payment? I mean the system must be able to be produced on a monthly basis, prorated for monthly (GOE5).

Another specific accounting issues identified in the interview was the treatment on investment in controlled entities, jointly controlled entities and associates. Given this, the interviewees were asked about the accounting recognition on their respective investments in the two companies that manage the parking system and waste management for some SLA. One interviewee stated that: "advance waste management [associate company]…we don't put it on the balance sheet (SLA6)". The response from SLA6 impliedly indicated that the recognition of such investment was inappropriately classified in the statement of financial performance (income statement), instead of categorising it under the balance sheet item.

6.7.2.7 Accounting Policies and Guidelines

The existence of accounting policies and guidelines, which outlines "specific principles, bases, conventions, rules, and practices…in preparing and presenting financial statements" is deemed important for transition to accrual accounting (Ouda 2010, 84). As discussed in subsections 6.3.2, 6.5.1 and 6.7.1.2, it was found that the authoritative standards, namely: the LAFR is unable to cover, at least, minimum disclosure requirements of the accrual accounting, which resulting one SLA to adopt PERS in the presentation of annual financial statements. As suggested by Arnaboldi and Lapsley (2009), the public organisation somehow should not simply imitate the commercial style accounting practices. To overcome the problems mentioned above, the SLA may fully adopt the new MPSAS, which is primarily drawn from the IPSAS. Nevertheless, the full adoption of MPSAS might be subjected to a few arguments in consideration of the slight differences of the disclosure practices governing the SLA.

In the absence of the authoritative accounting standards, therefore, one interviewee suggested to the relevant authorities to develop a customised standard operating procedure (SOP), in addition to the revision of the current statutory regulations, although the establishment of the SOP will not eliminate the "reconciliation problems (SLA2)". Another interviewee specified the importance of having an SOP across the local authorities, which in turn, facilitates the non-accounting background personnel:

> If we have an accrual flowchart, the staff will just follow the work process. It is the same thing if we have a proper policy on accrual or the SOP. So, what we need is just one or two professional accountants, and the others are just ordinary staff but provided that we have the SO. For the small council, if the SOP is complete, I think non-accountant should be a non-issue (SLA4).

The above statements can be linked to the arguments of Christiaens et al. (2015) that the development of internal accrual policy is due to the fear factor of losing the standard-setting authority and the preference for owned accrual accounting regulations. The same interviewee recommended the MLGH to spearhead the reform, and engage assistance from the NAD and private audit firms. An example of this suggestion is reflected as follows: "the audit department [NAD] can be the consultant or we can get the audit firms as well [consultation service], and MLGH can be the driver [developing the accrual accounting policies and guidelines] (SLA4)".

6.7.2.8 Conceptual Framework

In public sector, the establishment of the conceptual framework is vital for the transition to accrual accounting, encompasses “the objective and scope of general-purpose financial reporting, qualitative characteristics of general-purpose financial reporting and identifying the users and their information needs” (Ouda 2010, 85). In the effort to drive full-fledged financial management reform, four interviewees (SLA5, SLA8, GOE2, and GOE3) felt that there was a need to develop a conceptual framework that can prescribe the reporting disclosure and accounting practices of the SLA, which is presently absent. The SLA have their own unique ways to develop the conceptual framework. The SLA may adopt the “IPSASB conceptual framework by different countries” (Ouda 2010, 85), but the exemplification of the Indonesian local governments suggest not to imitate the other countries’ contexts due to the different conditions in supporting the reform implementation (McLeod and Harun 2014).

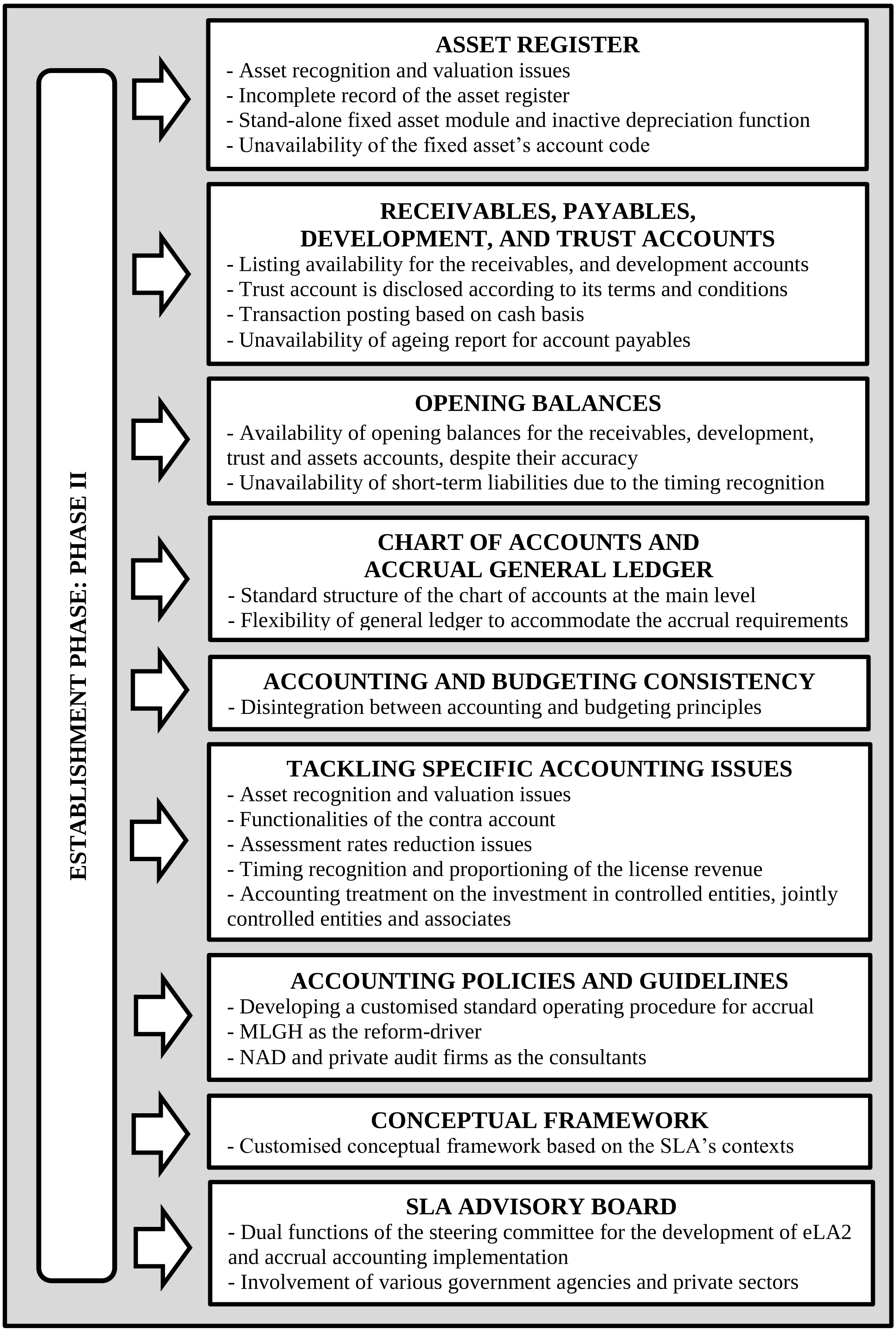
6.7.2.9 SLA Advisory Board

The final requirement that needs to be set up during the establishment phase is the central guidance unit and advisory board, functioning to coordinate mechanism between various government entities and providing advice on the technical and professional requirements (Ouda 2010). In line with the development of the eLA2, one interviewee stated that: “we already have the platform [eLA2 steering committee] (GOE2)”. Given this scenario, the SLA could harness the existing platform to support the transition to accrual accounting. The existence of eLA2 steering committee was reaffirmed by GOE3, who is also part of the eLA2’s team developer, and he further suggested to redefine and expand the composition of the team member, that:

> Actually, the MLGH has established the group. We call that something like an expert group and those experts [councils’ representatives] we gather them into one group. [For example] the FAS (financial accounting system) will have one group; rating will have another group [i.e., the group is segregated based on the system’s functionalities]. Let’s say the audit department [NAD] wanted to come in, so that it will be good because they will have their own requirement also and we can’t simply do the works without having some authorities (GOE3).

Figure 6.3 summarises the nine requirements of the establishment phase: phase II emerged from the focus group interview.

Figure 6.3: SLA Establishment Phase: Phase II



Source: Author's own research approach based on the modification to the Ouda's prescriptive model of the establishment phase: Phase II

6.7.3 Conversion Phase

According to Ouda (2010), conversion phase is the third requirement designed to migrate cash data and other accounting files to accrual file and constituted as the initial point and nexus for the periodic transfer to the new accounting basis. From the interview perspective, the conversion phase exists in the form of migrating accounting data to the new software, namely eLA2 for the selected batch of SLA as the full accrual system is yet to be implemented. One council, which has successfully implementing accrual system is also contemplating to migrate to eLA2 fully. The interviewee from the group of expert explained:

> By January next year, all [municipal and district councils] except for DBKU and MBKS. For DBKU, the only system they are using is the license [system], while MBKS will be moving in phases; they do it module by module and year by year basis. I think the one to push first is to standardise the FAS [financial accounting system]. But, the rating and licensing [modules], different big councils would have different requirements (GOE3).

In another aspect, one interviewee, who is considered as an accounting expert suggested to the SLA to consider migrating to accrual system in phases. An example of the conversion phase is explained as follows:

> If I may comment on the transition, there are proposals on how to go about the transition. Firstly, you must recognise the short-term assets and liabilities, you know like you are going to pay your supplier and contractor. So, that one should be recognised first. Secondly, your debtors, and assessment outstanding. Then, you start accruing your government borrowings as you know the actual figure [and] you have the correspondence, so you must go for that. By right, you don't have to worry much about the fixed asset. What you can do is to go for gradual approach because you know the exact location of your furniture & fittings. What we normally advise is to carry out a physical checking, if possible 100% checking during the transition process. Somehow rather, you have to account for all those assets (GOE5).

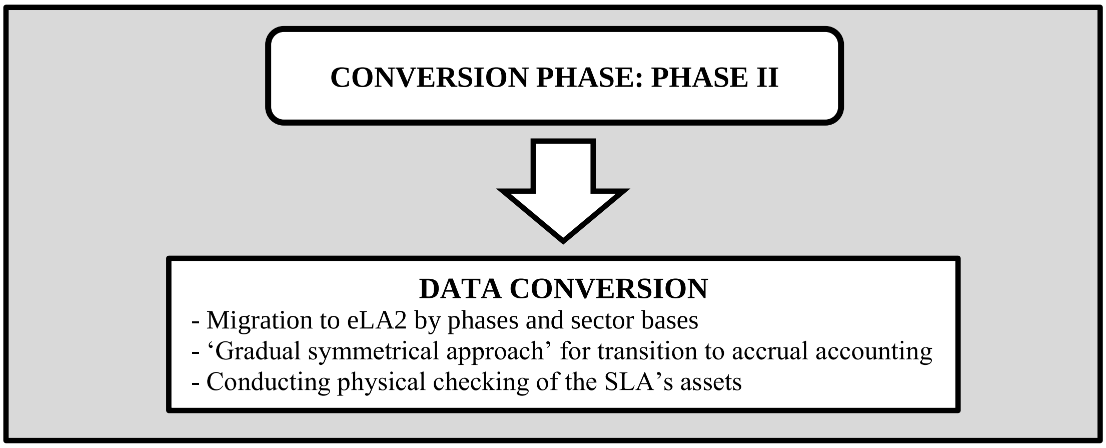
Consistent with Chan (2006, 6), who introduces gradualism approach in which the developing countries are suggested not "to push accruals to the point of recognising and reporting the infrastructure assets…instead considering the degree of accruals ranging from mild to moderate to strong". Chan (2006) further advises that the gradualism approach must take into account of the cost factor, experience, human resource capacity and workability of accounting software by emphasising the recognition of current assets and current liabilities. Similarly, the recognition of fixed asset and long-term obligations would only take place in the later stage (IFAC 2011).

Given this, the same interviewee further elaborated the gradual process of conversion phase to accrual system that should be considered by SLA:

> An asset such as road, plant, equipment, and whatever it is, you can go for that [recognise in the balance sheet] gradually. You can refer the cost that you purchase previously, and I think you have the MIR [Master Inventory Record], don't' you? During the transition period, it allows [accounting standards or practices] you to recognise the assets gradually. Sometimes, it may take two years or maybe more for you to come out with the full-fledged accruals (GOE5).

From the above discussions, the conversion phase commences with the migration of the accounting data from the previous systems, namely: ILAIS and SMART2000 to eLA2, which is implemented in phases from one SLA to another. To avoid any technical hiccup, the SLA may opt for a gradual approach to recognising the short-term assets and liabilities, and subsequently moving into long-term assets and other obligations. The overall consideration for the conversion to accrual system is illustrated in Figure 6.4.

Figure 6.4: SLA Conversion Phase: Phase II



Source: Author's own research approach based on the modification to the Ouda's prescriptive model of the conversion phase: Phase II

6.7.4 Testing and Confirmation Phase

The last phase of the transition phase II is the testing and confirmation phase, designed to test the workability of the accrual system, which may include enhancement to the existing of cash system, testing on the asset register module, and integration between cash and accruals general ledger (Ouda 2010). Therefore, the testing and confirmation phase involves a thorough testing on the workability of eLA2 as the full accrual system has yet to be implemented by the whole SLA. The SLA may also opt for a pilot site by selecting some SLA to initiate the accrual system (refer subsection 6.7.1.9).

The interviewees were asked about the testing process of migrating from the old systems (SMART2000 and ILAIS) to the new accounting software (eLA2). Given this, one interviewee mentioned about the selection of pilot testing, that: “We have two pilot sites, which are Miri and Samarahan councils (GOE2)”. The use of the pilot site is applaudable as it allows the government to gain experience in dealing with any unforeseen problems (IFAC 2011). The eLA2 is also subjected to a robust testing, regarding its functionality and performance to ensure the implementation model fulfils certain required standards. A system analyst explained:

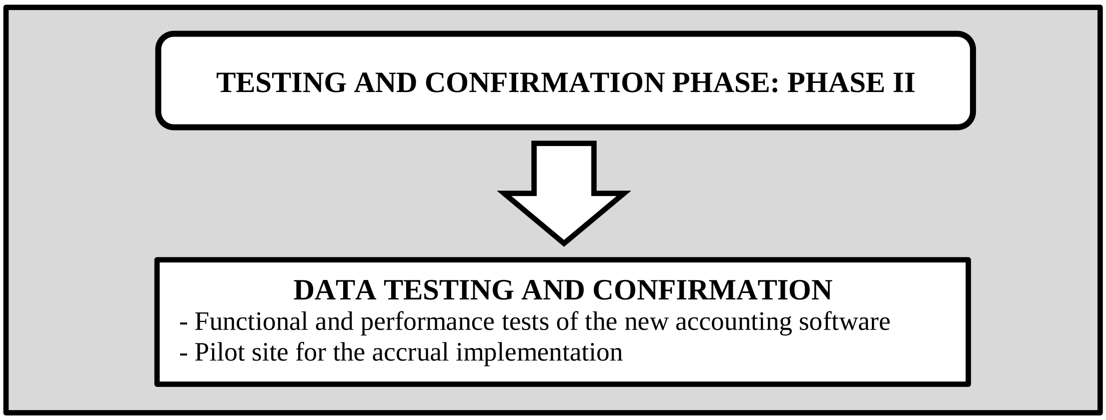
> Firstly, we select the pilot site to implement as we don’t want to implement in one go, then, you will have problems everywhere. There are two parts of testing: from the pilot site, we do the functional test. We also do the performance test and just to update you [that] performance test means we want to ensure the system leads to the performance, [and] not too slow. So, there are two tests that we have done. One is the performance test, [and] the other one is the user testing [functional test]. The second test is the standard practice of rolling up, building, planning and evaluating something (GOE3).

The same interviewee also commented that the eLA2 had incorporated almost 70% of the accrual requirements. He further exemplified the process of setting up the rating and miscellaneous bills modules previously for one council by mentioning that:

> Just to add a bit on the eLA2. [About] the rating and miscellaneous bills systems, we need to have accrual features of accruals as what we did for one council before. I mean the data process, setting up the account and that kind of things. For the transformation [transition to accrual accounting], we need to enhance all these accrual requirements (GOE3).

The summary of data testing and confirmation is provided in Figure 6.5.

Figure 6.5: SLA Testing and Confirmation Phase: Phase II



Source: Author's own research approach based on the modification to the Ouda's prescriptive model of the testing and confirmation phase: Phase II

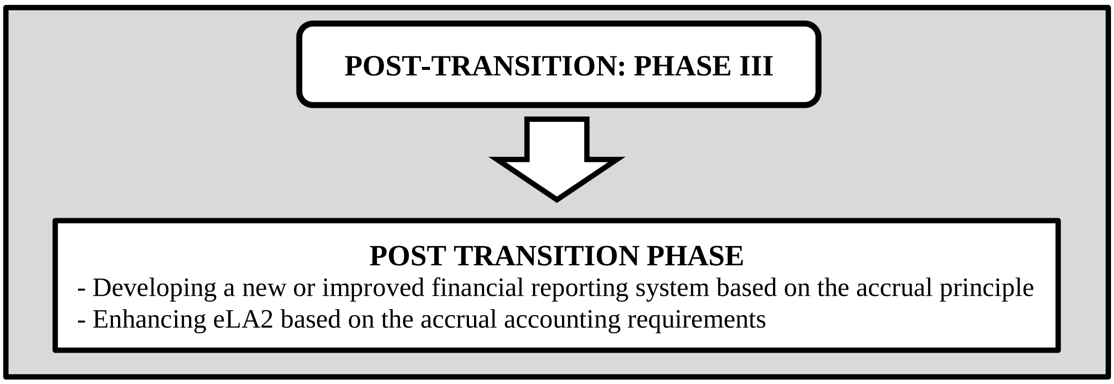
6.8 POST-TRANSITION: PHASE III

The final phase of the transition to accrual accounting ends with developing a new or improved financial reporting system, which includes the statement of financial performance, cash flow statement and other statements disclosing the overall financial information of the government entities (Ouda 2010). From the SLA standpoint, the majority of the interviewees concluded that they have not arrived at the final stage of the transition to accrual accounting. Given this feedback, the interviewees were asked about the capability of eLA2 to generate full reports that integrate with the accrual format of the SLA's annual financial statements. One of them stated that:

> The format [financial statement] is per what they require. For example, the fixed asset is yet in because the account is not part of the treatment. Once they do that, it will be reflected in the financial statements. [Even], the notes [notes to the financial statements] is also not in (GOE4).

The eLA2 may be subjected to frequent enhancements to cater to the accrual requirements. Regarding the system automation to generate a statement of budget performance, three interviewees (SLA4, SLA5, and GOE2) mentioned that the eLA2 can produce a comparison report of budget against the actual and generate cash flow statements, although some statements have yet to be disclosed in the annual financial statements. Another interviewee in which his council has already implemented accrual system commented on the needs to improvise the reporting format, that: "improvement in the presentation of a financial statement like having budget disclosure (SLA1)". Figure 6.6 summarises the discussion in the post-transition: phase III.

Figure 6.6: SLA Post-Transition: Phase III



Source: Author's own research approach based on the modification to the Ouda's prescriptive model of the post-transition: Phase III

6.9 ASSOCIATION BETWEEN THE RESULTS OF RESEARCH QUESTION 3 AND THE THEORETICAL PERSPECTIVES

This section provides association and comparison between the results of RQ3 and the Ouda's prescriptive model designed primarily for prescribing the comprehensive requirements for the transition to accrual accounting in the developing countries. The model, which is a form of contingency theory was developed to overcome the weaknesses found in the previous accounting innovation models (refer subsection 3.5.2.3). As argued by Ouda (2010), the previous models were found to suffer from the industrial experiences of the governmental accounting practitioners, as well as emphasising more towards the explanatory factors instead of prescribing a clear accrual requirements for the transition plan from the outsets. Therefore, the Ouda's prescriptive model is aptly applied to prescribe the real situation of the current disclosure and accounting practices of the SLA in the quest for the transition towards accrual accounting. The similarities and differences between the findings of the focus group interview and the requirements as outlined in the Ouda's prescriptive model are discussed as follows:

a) Reform Decision-Making: Phase I

Ouda (2010) perceives the initial process of innovating the governmental accounting system should encompass such requirements, namely stimuli, knowledge and awareness, persuasion, and legitimacy, which consequently lead to decision-making for the transition to accrual system. The findings from the interview revealed that stimuli, knowledge and awareness, and legitimacy are the important requirements that shall exist in the initiation phase. The study also found that only two factors, namely the transformation programmes occur at both the Federal and State governments, and the influence of audit institution exist in stimulating the financial reform process.

Equally important, the interviewees acknowledged the needs to disseminate the message of revamping the accounting system to the various concerned parties. The NAD, the AGD, and the national accounting association gave supports for creating the knowledge and awareness among the stakeholders. Consistent with Hyndman and Liguori (2016), the preliminary requirement for the change has to be legitimised among the MLGH, the SFS, and the SLA as the accrual implementers. However, there is no evidence that persuasion factor is relevant in the context of the SLA. Instead, there was a very strong link between the official directives from the higher authority for a decision for the accrual accounting implementation. The official directive is thus considered a new requirement and extension of the Ouda's prescriptive model found in this study. Notably, the reform decision-making exists in the form of developing the new version of accounting software (eLa2). This development is vital to facilitate the implementation of accrual accounting for the whole SLA, which is yet to be materialised at the point of this study.

b) Transition Framework: Phase II

Similarly to the Ouda's prescriptive model, the transition framework: phase II entails four sub-phases commencing with the initial transition and ending with the testing and confirmation phase. Nevertheless, another difference found in this study is the detailed components of each sub-phase. Some of the requirements prescribed by Ouda (2010), were either excluded or enhanced to situate the actual context of the SLA, which are explained as follows:

Initial Transition Phase

In contrast with Ouda (2010), there were ten basic requirements which emerged from the focus group interview. Despite some minor differences, the study identifies several requirements of the Ouda's prescriptive model still applicable for the SLA. These factors are: (i) information technology capability; (ii) legal provision; (iii) professional and academic supports; (iv) communication strategy; (v) management cultural change; (vi) willingness to change; and (vii) consultation and coordination. The political and bureaucracy supports were combined as one requirement to situate their coexistence in driving the accrual accounting implementation.

Apparently, the support from the international financing bodies does not become relevant for the SLA. Instead, one of the challenges that the SLA faces is regarding the reliance on the State government funding for the development of the technology infrastructure and budgeting of the accrual adoption cost. As shown in the empirical evidence, human resource capacity has been critically debated by the interviewees as one of the success factors for this reform idea. Therefore, human resource capacity is the new component added in the initial transition phase due to its possession of much-needed.

Establishment Phase

The analysis of results identifies nine technical and professional requirements that are significant for the establishment of accrual accounting in the SLA. Consistent with Ouda (2010), the study also supports the inclusion of asset register, opening balances, accounting and budgeting consistency, tackling specific accounting issues, and conceptual framework as the requirements that should be focussed to bring the accounting reform into practice. The chart of accounts and accrual general ledger were amalgamated into a single determinant due to their similar functionalities and these were also acknowledged by the interviewees as another important requirement for the accrual disclosure. One of the complexities that the SLA faces is regarding the maintenance of receivables, payables, development, and trust accounts under accrual accounting principles. As emerged from the interview, the inclusion of this new requirement is due to its real challenges engulfing the majority of the SLA.

Additionally, the accrual basis would require an adaptation of MPSAS in presenting the accrual financial statements. The study findings emphasised that the accounting policies and guidelines are considered as the requirements in the establishment phase must be suited to the context of the SLA by adhering to the accrual principles, rules, and practices. It is evident from the interview for the needs to formulate a customised conceptual framework, which prescribes the reporting disclosure and accrual accounting practices of the SLA. Given the needs of formulating the accounting policies and guidelines, and customised conceptual framework, the SLA advisory board comprising various expert groups and authorities would be a proposed platform to spearhead the transition to accrual accounting.

Conversion Phase

One of the significant findings of this study is that the conversion phase involves migrating of all accounting files from the old version of accounting software into eLA2 in batches and by sector basis, particularly for those SLA who still implement cash system. It was also suggested from the interview that the conversion phase would constitute a migration to accrual system by 'a gradualism approach'. However, there would be a different treatment for the SLA that have successfully adopted accrual accounting basis, which perhaps includes enhancement to the existing disclosure.

Testing and Confirmation Phase

As suggested by Ouda (2010), the detailed component of the testing and confirmation phase should contain the post-checking on the workability of the accrual system. Comparatively, the roadmap towards accrual accounting in the SLA requires a comprehensive testing on the workability of eLA2, which was segregated into two tests, functionality and performance tests. Considering the non-full implementation of the accrual system across the SLA, the interviewee suggested a pilot site to test the workability of the accrual system.

c) Post-Transition: Phase III

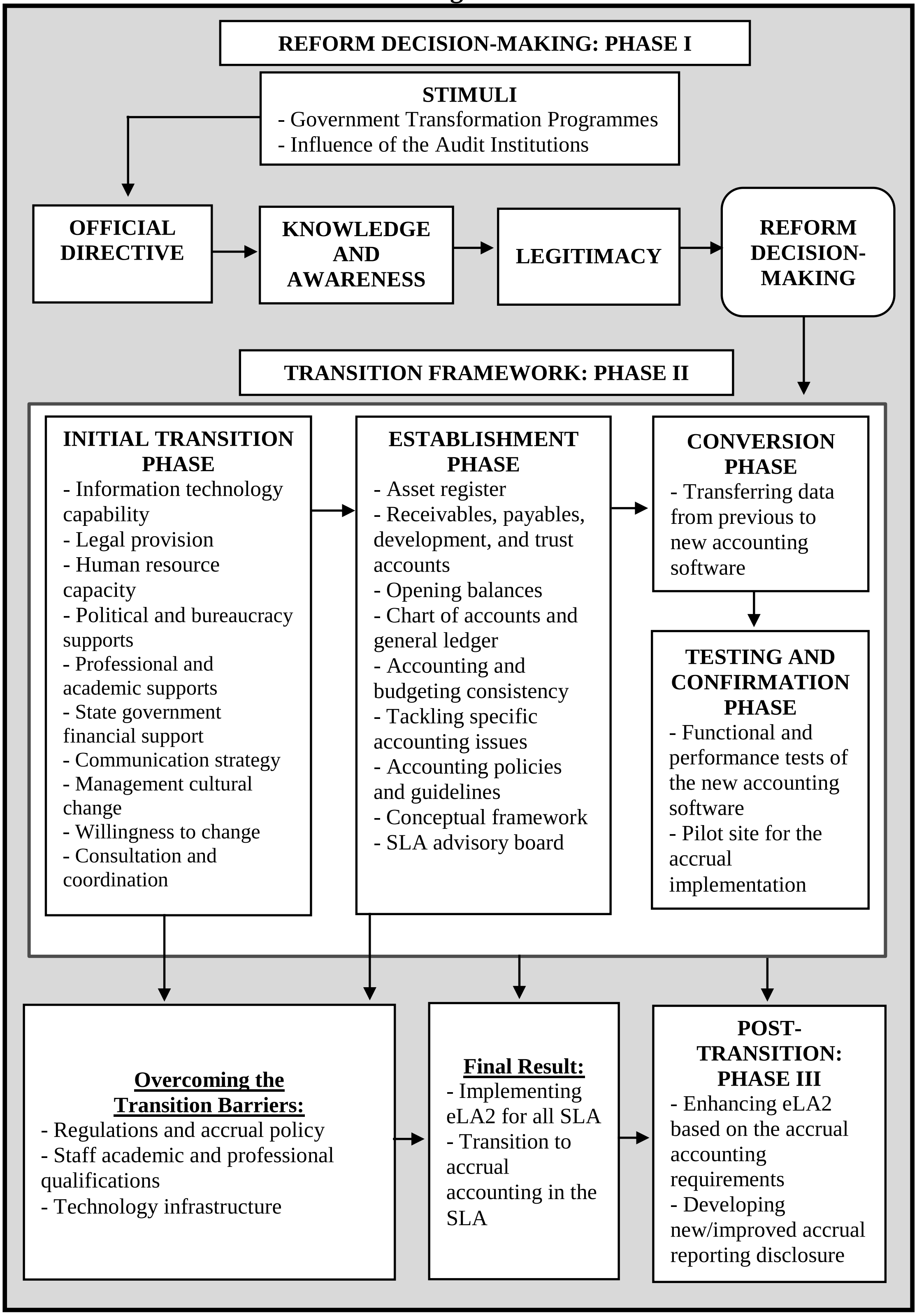
In this study, another distinct component of the post-transition phase is the requests for the enhancement of eLA2 to accommodate the requirements of the accrual accounting basis. As such, some of the financial reporting formats generated from the eLA2 were suggested for an improvement, which result in the production of the annual financial statements based on the accrual disclosure basis.

Final Result and Overcoming the Transition Barriers

The final result of employing the Ouda's prescriptive model is to facilitate the transition towards accrual accounting and disclosure requirement in the SLA. Therefore, the transition plan involves the transformation of the application feature of the accounting software that can be harmonised and standardised across all SLA. Consistent with the empirical findings of RQ2 and IPSASB (2013), the journey towards accrual accounting would be a success story if the three transition barriers, namely regulations and accrual policy, staff academic and professional qualifications, and technology infrastructure are properly managed. That is, these important requirements should be placed in the main area of focus.

The final framework that depicts all relevant requirements for transition towards accrual accounting disclosure in SLA is provided in Figure 6.7.

Figure 6.7: A Prescriptive Model of the Requirements for Transition towards Accrual Accounting Disclosure in SLA



The diagram above shows the extension of the Ouda's prescriptive model derived from the findings of the focus group interview.

6.10 SUMMARY

This chapter has discussed and analysed the results of the third research objective that is investigating the requirements and influences that contribute to the transition and disclosure of accrual accounting information in the SLA's annual financial statements. It was gathered from the interview that the accrual accounting implementation was seen to be relevant for its implementation in the SLA. Nevertheless, the current cash system predominantly adopted by the SLA does not directly affect the performance gap and financial audit compliance. Arguably, the interviewees acknowledged the strength of accrual system despite the simplicity of handling the cash system. Consistent with the findings of RQ2, the interview indicated that regulations, qualification of the accountancy personnel, and technology are three important determinants that may determine the success of transition towards accrual accounting.

The discussion presented in this chapter shows that many requirements as outlined by Ouda (2010), were considered as imparting influences in the accrual transition process of the SLA. Overall, there were some modification and enhancement made to the original prescriptive model such as the inclusion of new variable, i.e., 'official directive' in the reform decision-making: phase I to replace the 'persuasion factor'. On the other hand, there were ten requirements constituted in the initial transition phase and nine requirements identified in the establishment phase of the transition framework: phase II respectively. Moreover, the inclusion of data transfers from the previous to new accounting software, coupled with the accounting software workability test and the pilot site of accrual accounting implementation to indicate the current reform process that should be taken by the SLA, at least up to now. This inclusion, in turn, would require an enhancement to the new accounting software, which also tailors the modification to the financial reporting format. Since the reform process was identified to have been influenced by the SLA's operating domain, therefore, three important determinants which are regulations and accrual policy, staff academic and professional qualifications, and technology infrastructure were identified as the transition barriers that need to be overcome accordingly.

CHAPTER 7
CONCLUSIONS, FINDINGS AND IMPLICATIONS

7.1 INTRODUCTION

The previous chapter discussed the findings of the focus group interview that identify the requirements and extent of influences that contribute to the transition and disclosure of accrual accounting information in the SLA's annual financial statements. This chapter presents the overall conclusion of the study. Section 7.2 outlines the research objectives, methodology, and methods. Section 7.3 summarises the main findings of the three research questions. Section 7.4 presents the practical and theoretical implications derived from this study. Section 7.5 highlights contributions to knowledge, theory, methodology and practice, as well as the strength of the study. Section 7.6 identifies the limitations of the study and suggestions for future research. Section 7.7 concludes the chapter.

7.2 REVIEW OF RESEARCH OBJECTIVES, METHODOLOGY, AND METHODS

The motivations to undertake this study is based on twofold reasons. First, the government financial reform has taken place on the accounting framework in Malaysia, due to the greater emphasis in improving public governance, accountability, and transparency. As experienced by the earlier reformer countries, the accrual accounting with its full disclosures in the financial reports provides a holistic snapshot of the government financial position and allows a sound decision-making in the consumption of public resources. Second, the spill-over effect of the financial transformation agenda at the level of Federal government has cascaded to the Sarawak civil service which has led to the introduction of a roadmap towards accrual accounting as one of the key strategic issues for the long-term financial improvement initiatives. Therefore, it is interesting to see to what extent the financial transformation agenda influences the accrual accounting disclosure in the SLA's annual financial statements. With the above arguments, the study aimed to evaluate the extent of disclosure of accrual accounting implementation in the SLA's annual financial statements and examine the requirements associated with the transition towards accrual accounting.

In meeting the research objectives of the study, a mixed-method research through segregation of phases was employed to obtain a greater understanding of the level of accrual accounting disclosure in the SLA and the determinants that contribute to its disclosure, thus facilitate the transition towards accrual accounting. The revealed issues and contradictions found in the quantitative phase may not be found by relying on the single approach per se. The rationale for adopting the two-phase of sequential explanatory mixed method design was justified in Chapter 4 of this study. To achieve the objectives of the study, three research questions were designed which are summarised as follows:

RQ1: Disclosure Index Approach

A self-constructed disclosure index was constructed to measure the extent of the accrual accounting disclosure for the twenty-six SLA based on their annual financial statements from 2012 to 2015. The index was developed primarily based on the statutory and non-statutory requirements. A comparison was also made to the financial statement of the SLA and some relevant disclosure studies. The index was then subjected to a Delphi opinion-seeking exercise. The study employed an unweighted approach through a dichotomous scoring in measuring the disclosure of relevant accrual item.

RQ2: Statistical Analysis

This study conducted a longitudinal panel data model to analyse the association between the extent of accrual accounting disclosure and the five selected variables through a GLS regression analysis with cluster-robust standard errors. The selection of the five SLA-specific determinants, among others, was based on the three institutional pressures, namely: coercive, normative, and mimetic isomorphism that explains the requirements influencing the accrual accounting disclosure. As such, several diagnostic or statistical tests were performed to get the right estimator panel for the regression model. Univariate and bivariate analyses were also employed to enrich the descriptive information and correlation between the extent of accrual accounting disclosure and each of the independent variable.

RQ3: Focus Group Interview

A focus group interview was conducted with thirteen participants from the SLA and group of experts to identify the requirements and the extent of influences that contribute to the transition and disclosure of accrual accounting information in the SLA's annual financial statements. The identification of the accrual disclosure requirements in the SLA was employed using Ouda's (2010) extended contingency theory, termed as a 'Prescriptive Model'. Equally important, the qualitative approach was designed to supplement the findings from the quantitative phase.

7.3 SUMMARY OF THE MAIN FINDINGS FOR THE THREE RESEARCH QUESTIONS

This section summarises the main results for all the three RQs, which relates to the findings discussed in Chapter 5 and 6 in this study. The summary is divided into three subsections as follows:

7.3.1 Research Question 1

What is the extent of the disclosure of accrual accounting information in the Sarawak local authorities' annual financial statements?

Based on a self-constructed disclosure index approach, 51 items were developed as a disclosure index instrument for the presentation in the annual financial statements of the SLA which was divided into six categories and nine subcategories (refer Appendix 4.1). The two categories namely: Statement of Financial Position and Statement of Financial Performance were expanded to incorporate the information items of the accrual accounting treatment. Out of 51 items of disclosure index instrument, the relevant maximum disclosure was reported at 47 items and only 42 items were evaluated for the relevant minimum points.

The main results revealed that the average accrual disclosure in the annual financial statements of the SLA from 2012 to 2105 reported a low achievement of 36.36%. Two SLA achieved a scoring of over 88% during the period under study, which impliedly indicates that their annual financial statements are prepared at least on a modified accrual basis. In contrast, the remaining twenty-four local authorities only reported a mean score from 30.23% to 35.48%, suggesting that the disclosure of annual financial statements is based on at least a modified cash basis. Among the six categories forming the accrual index, the statement of budget performance had the highest mean disclosure score at 92.3%, followed by the statement of financial position (57.4%), statement of financial performance (40.8%), and notes to the accounts (30.8%). The statement of changes in net asset/equity and cash flow statement reported a lowest mean disclosure score of 7.7% respectively.

In summary, the extent of the disclosure of accrual accounting information for each SLA over a period of four years remained constant. This result shows that there is a low level of accrual disclosure in the SLA's annual financial statements. The total average SLADI for the six categories over the period studied was below a satisfactorily level at 39.45%. More importantly, the results of RQ1 indicate that the transition towards accrual accounting would be difficult to be implemented without a comprehensive transition framework available for the reference of the SLA.

7.3.2 Research Question 2

Do technology infrastructure, the size of local authorities, qualification of accountancy personnel, audit institution size, and regulations have significant associations with the disclosure of accrual accounting information in the Sarawak local authorities' annual financial statements?

By using the institutional theory, the second objective of the study is to examine whether the five SLA-specific determinants influence the disclosure of accrual accounting information in the SLA's annual financial statements. Five hypotheses were formulated, and the bivariate and multivariate analyses were employed to test these hypotheses. The results of the Spearman's rank correlation revealed that the disclosure of accrual accounting information is positively correlated with the regulations, qualification of accountancy personnel, technology infrastructure, and size of local authorities. The accrual accounting disclosure was found to be not associated with the audit institution size.

In contrast, the key findings from the GLS regression analysis with cluster-robust standard errors showed that only three explanatory variables, namely regulations, qualification of accountancy personnel, and technology infrastructure, are found to be positively and significantly associated with the accrual accounting disclosure. The other variables were reported to be non-associated with the extent of accrual accounting disclosure over the study period. Overall, the results of this study indicate the presence of all the three institutional arrangement: coercive, normative, and mimetic isomorphism.

7.3.3 Research Question 3

What are the requirements and extent of influences that contribute to the transition and disclosure of accrual accounting information in the Sarawak local authorities?

Requirements and extent of influences that contributed to the transition and disclosure of accrual accounting information in the SLA were identified primarily from the Ouda's prescriptive model. Additionally, the extraction of information within a possible institutional pressure and the perceptions on the usefulness and challenges of the two main accounting bases enriched the insights associated with the disclosure requirements for the transition towards accrual accounting. Summaries regarding these requirements are provided as follows:

Reform Decision-Making: Phase I:

Analysing the reform journey in the SLA begins from the existence of stimuli and ends with the reform decision. It was found that there were several stages emerged in the process, namely official directive from the higher authority, knowledge and awareness, and legitimacy to stimulate the governmental accounting innovation.

Transition Framework: Phase II

The transition framework: phase II consists of four sub-phases with some minor changes to the requirements as initially prescribed by Ouda (2010). The changes, which emerged from the interview are seen to fit the actual climate of the cultural, administrative and technical requirements of the SLA.

Initial Transition Phase: Ten requirements that could create an appropriate condition for the transition towards accrual accounting in the SLA were identified in the interview. These requirements are: (i) information technology capability, (ii) legal provision, (iii) human resource capacity, (iv) political and bureaucracy supports, (v) professional and academic supports, (vi) state government financial support, (vii) communication strategy, (viii) management cultural change, (ix) willingness to change, and (x) consultation and coordination.

Establishment Phase: The study found that nine technical and professional requirements should be appropriately managed for a smooth transition towards accrual accounting in the SLA. These fundamental requirements are: (i) asset register, (ii) receivables, payables, development, and trust accounts, (iii) opening balances, (iv) chart of accounts and general ledger, (v) accounting and budgeting consistency, (vi) tackling specific accounting issues, (vii) accounting policies and guidelines, (viii) conceptual framework, and (ix) SLA advisory board.

Conversion Phase**:** Uniquely, the conversion phase in the SLA requires a migration of the accounting data from the previous accounting software, namely: SMART2000 and ILAIS to the new system of eLA2. The data migration is considered as the starting point of embarking into the full accrual system which also includes the two SLA who have implemented the accrual basis in the preparation of the annual financial statements. The findings also suggest executing a 'gradual symmetrical approach' for the transition to accrual accounting in the SLA.

Testing and Confirmation Phase**:** The findings revealed that testing the workability of the accrual system should begin with the functionality and performance tests of the new accounting software (eLA2) employed by the SLA which would later generate the financial reports based on the accrual accounting principles.

Post-Transition: Phase III

As the decision for the transition towards accrual accounting is yet to be officially regularised, the post-transition: phase II requires an enhancement to the system workability and improvement to the existing reporting disclosure based on the accrual accounting principles.

Final Result and Overcoming the Transition Barriers

All the requirements that emerged in the interview provide a comprehensive framework that prescribes the actual process of reforming the financial reporting and disclosure practices which focusses on the contextual, behavioural, content, technical, and capacities variables of the SLA. Apparently, the transition towards accrual accounting in the SLA involves a concurrent revolution on the accounting software (eLA2). In overcoming the transition barriers, three important institutional pressures namely regulations, qualifications of the accountancy personnel, and technology infrastructure are identified in giving multiple interactions to the transition towards accrual accounting in the SLA.

7.4 IMPLICATIONS OF THE STUDY

Implications of this study are derived from the process of conducting the research and findings of the study, which have several practical and theoretical implications.

7.4.1 Implications for Policy and Practice

Practically, the main purpose of this study is to offer empirical evidence to the policymakers, regulators, and the SLA themselves for the implementation of accrual accounting. Implications of the findings to practice and policy are discussed as follows:

Firstly, producing a disclosure index instrument which consists of 51 accrual items for the presentation of annual financial statements of the SLA is the main implication of the study. The disclosure index can be used by the authorities and policymakers as the basis for the full implementation of accrual system and standardise the presentation of the SLA's annual financial statements and accounting practices. Despite the low level of accrual disclosure with an average of 36.36% over the four year period (refer subsection 5.3.1), there is still room for improvement of the accrual presentation as the study period covered from 2012 to 2015 was found to be an 'idle period'[37]. Therefore, the SLA may consider adopting the accrual disclosure index either partially or fully to reduce the wide gap between the most and least disclosed items as shown in Section 5.3 from year to year in the future. In turn, the accrual disclosure of two important reports, which are the Statement of Financial Position, and Statement of Financial Performance can be gradually improved.

Secondly, the GLS regression and focus group interview results provided evidence that regulations are the most important disclosure requirements for the transition towards accrual accounting. As a matter of fact, the two SLA which reported a commendable achievement of the accrual disclosure (refer subsection 5.3.1) were referring to the non-statutory requirements of PERS in the presentation of annual financial statements. Comparatively, the remaining twenty-four SLA that achieved a low level of accrual disclosure are fully adopting the LAFR, which does not specify the minimum contents of the accrual presentation of annual financial statements. Given this, the evidence from the interview suggests that there should be a revision to the existing LAFR to cater for a specific accrual principles, bases, conventions, rules, and practices. The revision of the LAFR, among others, shall prescribe the manner in which the presentation of the SLA's annual financial statements are prepared under the accrual basis of accounting that includes minimum disclosure requirements for the contents of financial statements.

The policymakers and the SLA themselves may also consider adopting the MPSAS, which is primarily drawn from the IPSAS. However, the question of whether the full adoption of MPSAS is applicable or not has given the slight differences whether the disclosure practices governing the SLA will be an ideological one. The findings from the interview also revealed on the request for having an establishment of the accrual accounting policies and guidelines. This establishment would require a close synergy among various parties involving the government authorities (NAD, AGD, SFS, and MLGH), the standard-setting authority (MASB), the national accounting body (MIA), the private audit institutions, and the SLA themselves. The SLA may consider

[37] During the study period from 2012 to 2015, the only major initiative taken by the SLA was the development of new accounting software (eLA2), which is considered part of the public sector reforms.

developing a customised standard operating procedure and conceptual framework that prescribe the process of preparing the annual financial statements, based on the accrual principles and reporting disclosure.

Thirdly, the issuance of an official directive from the higher authority would give implications to the accrual accounting implementation across the SLA. It is evident from the interview that some SLA were ready to implement accrual system depending on further directive from the higher authority. However, the SLA may not have adequate resources to carry out such initiative, which requires a full support from the bureaucrats, politicians, professional bodies, and academicians. Understanding few issues such as the technical and financial constraints are profoundly important for the policymakers and regulators before announcing the reform decision-making.

Next, it was reflected from the GLS regression analysis and interview that the human resource capacity which includes academic qualification and professional affiliation of the accountancy personnel would impart significant associations with the accrual accounting disclosure. The lack of qualified accountants, or to the lesser extent, the assistant accountants at the level of district council was acknowledged in the interview and this impediment entails a serious consideration by all concerned parties. Another identified pertinent issues that need to be relooked by the higher authorities are the strength of workforce at the municipal and district councils and inexperienced staffs who have to be equipped with a basic accounting knowledge. The MLGH and the SLA can benefit from these findings by paying special attention to the provision of staff recruitment and deployment, as well as providing sufficient training to ensure a smooth implementation of accrual system. Moreover, this study is a call to the professional and academic fraternities to render their expertise in the accounting field to the SLA through various training programmes and collaborative work.

Then, this study provides evidence that IT capacity is one of the requirements for an accrual accounting system implementation in the SLA that supports one of the agendas of the 'Sarawak Digital Economy Strategy'[38] to improve and innovate the government service delivery for cost saving and transparency of policies. As such, the transition accrual plan involves a concurrent transformation on the application of the accounting software (eLA2) which is employed across all SLA. It is also evident from the interview that the existing features of eLA2 such as system-generated financial reports shall be improved and tailored to the disclosure requirements of accrual accounting, apart from integrating the budgeting system.

Despite numerous strengths of the eLA2, the capability of the accounting personnel operating the system has to be reassessed by the SLA to prevent any underutilised technology, as the non-competent staff may put the blame to the system (refer section 6.5.2). As remarked by the Sarawak State Secretary, that "… civil servants are known to be reluctant to embrace the digital technology for fear of the unknown and to be drawn back by lack of knowledge and burdened by fear of some unmanageable consequences" (Chief Minister's Department 2017, 3). Therefore, the staff motivation, the will and on-going training should be instilled to the operator of the system from the outset, to ensure a smooth workability of eLA2 as a tool to support for the accrual implementation.

After that, the MLGH should revisit the existing functions of the 'eLA2 project steering committee' and the 'project technical committee'. From this study, it is suggested that the existing committee should be fully utilised specifically by redefining the scope and function which include the establishment of the accounting advisory group. In other words, the establishment of the SLA advisory board will act as a central guidance unit to coordinate mechanism between various government entities and provide advice on the technical, financial, legal and other requirements. There is also a need to relook into the composition of board members that should encompass various agencies such as the SFS, MLGH, NAD, SAINS, and selected

[38] Sarawak Digital Economy Strategy 2018-2022 is the brainchild of the 6th Chief Minister of Sarawak to bring about a paradigm shift in the development strategy in order to employ the digital economy. One of the strategic actions of the Sarawak Digital Economy Transformation is on the 'Digital Government', among others to encourage innovation and new ideas in using the government data.

SLA. The higher authorities may consider to include the experts from the MIA, academicians, and audit firms on the ad-hoc or case-by-case basis.

Finally, the SLA may learn from the experiences of other countries by implementing a 'gradual symmetrical approach' (Chan 2006) and adopting a pilot project to accelerate the process of transition towards accrual accounting. These measures may be workable in improving the level of accrual disclosure by focussing on the recognition of short-term assets and liabilities, and subsequently moving into the fixed asset and long-term obligations (refer subsection 6.7.3). More importantly, the policy makers and regulatory authorities should assess all requirements factors from the reform-decision making: phase I to the post-transition: phase III, as well as overcome the transition barriers (refer section 6.9).

7.4.2 Theoretical Implications

The findings of the study offer several theoretical contributions in several ways:

Firstly, this study amalgamates two theoretical frameworks as the bases for addressing the research objectives. Many accounting scholars (e.g. Lande 2006; Qian, Burritt and Monroe 2011) have employed both institutional, and contingency theories in their research as the use of a single theory may not be able to produce a thorough discussion on a particular body of knowledge (Humphrey and Scapens 1996).The findings from both the quantitative and qualitative phases appear to support the relevancy of employing the institutional theory and contingency theory in examining the extent of accrual accounting information and disclosure requirements for the transition towards accrual accounting in the SLA.

The co-existence of two theories can be illustrated from the results of the interview in which the transition towards accrual accounting in the SLA was prescribed by all relevant contingency factors, as well as affected by the SLA's operating domain. The results seem to support the argument of Donaldson (2001), who states that the contingency factors are not only characterised within the organisation but also the external environmental and technical uncertainty. Consistent with Donaldson (2006), this study also suggested that the use of institutional theory per se may not be able to assist the organisational change and improvement despite its strengths to adapt to the institutional environment and socially acceptable norms.

Donaldson (2001, 4) argues that the contingency approach is also able to explain "the effect of one variable on another which also depends upon some third variable". Therefore, it was evident that the transition to accrual accounting and disclosure of accrual accounting information in the SLA's annual financial statements were influenced by the trivariate and multivariate interactions of variables as reflected in both the findings of RQ2 and RQ3 of the study. It is also contended here that external pressures posed by the institutional theory and internal structures implied by the contingency theory are interrelated to each other (Gupta, Dirsmith and Fogarty 1994). Therefore, the use of contingency theory alongside the institutional theory could impart more explanations in specifying which structures suit which circumstances for the disclosure and transition towards accrual accounting in the SLA.

Secondly, this study demonstrates that the three types of institutional isomorphism, namely coercive, mimetic, and normative are useful in understanding the significant disclosure factors that influence the presentation of accrual accounting information in the SLA's annual financial statements. The results of the GLS regression in RQ2 pointed out that the change of accounting disclosure would require the presence of three institutional arrangements, through regulations, qualification of accountancy personnel, and technology infrastructure. This study, therefore, serves evidence to support the development of institutional theory and hypotheses testing, by reflecting the case of the public sector in the emerging economies.

Finally, the study implication relates to the extension of contingency theory. To the best of the researcher's knowledge, the Ouda's (2010) prescriptive model which was initially designed for the transition to accrual accounting in central government was only employed by Ouda in 2014 in examining the transition requirements of accrual accounting for the Netherlands and Egypt. Reviews from published journals revealed that this study is probably the first, in the area of local government accounting to adopt the prescriptive model in identifying the requirements and the extent of influences that contribute to the transition and disclosure of accrual accounting in the SLA's annual financial statements.

Despite a criticism of the contingency approach due to its less applicability of interpretive and critical views (Chenhall 2003), "the key contingencies from which prescriptions in order to suit a different set of circumstances could be developed" from the empirical research (Otley 2016). Given this argument, the empirical evidence from the interview provides a detailed framework that prescribes and explains the requirements for the accounting change which includes the contextual, behavioural, content and capacity variables. As such, Ouda's (2010) prescriptive model was modified by integrating a few requirements that suit the local condition and inherent uncertainty of the SLA, thus contributes to the branch of contingency theory. Some modifications to the requirements included in the revised model are necessary to explain the transition towards accrual accounting in the SLA. As discussed in Chapter 6, among the new requirements are the official directive, and the implementation of new accounting software to support the accrual practices.

7.5 CONTRIBUTIONS AND STRENGHTS OF THE STUDY

The practical and theoretical implications relates to the contributions of this study on the development of knowledge, theory, methodology and practice. Firstly, the findings of the study have contributed new knowledge on the accounting and reporting disclosure literature by providing empirical evidence of the local government in the emerging economies. This study is probably the first governmental accounting research conducted in Malaysia that examines five-specific determinants which could influence the extent of accrual accounting disclosure in the annual financial statements. Distinctively, some factors of disclosure such as the size of organisation and audit institution, which established to be significantly associated with the reporting disclosure in the prior studies were found to be irrelevant in the context of the SLA. Notably, it indicates that the disclosure factors that are deemed relevant in other counties may not be necessarily applicable in the context of the Malaysian public sector, particularly the SLA. Additionally, this study imparts evidence and implication for those countries that have yet to implement the accrual system and reduce the gap between what is identified and unidentified in the governmental accounting innovation in the emerging economies in Asia.

Secondly, the implication of the theory leads to a development of self-constructed disclosure index. There are very limited disclosure studies relating to accrual accounting and reporting in Malaysia, and some of the disclosure indexes are not applicable to the SLA. As reported in Chapter 4, some related disclosure studies benchmarked various statutory and non-statutory requirements in developing the accrual index such as the CIPFA Code of Practice on Local Authority Accounting (Coombs and Tayib 2000), IPSAS (Pina, Torres and Yetano 2009), and Treasury Circular (Ali and Saidin 2016). However, this study has a distinct approach in developing the accrual index by referring to the statutory requirements disclosure (Regulation 39, LAFR) and the non-statutory requirements disclosure (MPSAS 1- Presentation of Financial Statements). Apart from reviewing the related disclosure studies, the study also benchmarks the annual financial statements of one of the SLA for comparison purposes. Therefore, the index, either in its current form or extended modification form can be employed for the comparative disclosure studies.

Thirdly, the GLS regression estimated with cluster-robust standard errors was successfully used by this study in analysing the association between the independent and dependent variables. Majority of the related disclosure studies employ OLS model to examine the effects of specific determinants on the extent of different disclosure levels (e.g. Wallace, Naser and Mora 1994; Akhtaruddin et al. 2009). Given the nature of study data, which some variables showed a different pattern of changes throughout the study period, the use of GLS regression estimated with cluster-robust standard errors generate a robust result that control any heteroscedasticity and serial correlation problems. Therefore, it is highly recommended for the future disclosure research with similar nature of data to employ the GLS with cluster-robust standard errors in the longitudinal panel data model.

Apart from contributions to knowledge, theory, methodology and practice, this study has several strengths that worth mentioning. The first strength of the study stems from the robustness of the instrument used for the development of accrual accounting index.

The instrument was rigorously constructed by examining various sources including the audited financial statements, statutory requirements (LAO, LAFR, BDO, and SBO), and non-statutory requirements (MPSAS 1-Presentation of Financial Statements, and FGAAM), as well as reviewing related disclosure research. Consistent with prior studies, the index was then pretested to confirm the scoring consistency (refer subsection 4.6.3.3). One of the uniqueness employed for the index verification is through a Delphi exercise encompassing the accounting experts from one international audit firms (refer Appendix 5.2) and two local based audit firms. The index was also validated by the regulatory authority (refer Appendix 5.1), as well as the MLGH and one selected SLA. As for RQ1, the study analysed the whole population of the twenty-six SLA, which justifies the robustness of the findings.

Secondly, the study performed several diagnostic tests to get the most effective regression model that could explain the association between the five-specific determinants and accrual accounting disclosures. Furthermore, this study highlighted the five-panel regression models to enable a comparison of the regression results (refer Appendix 5.3). The study also opted to use cluster-robust option to rectify the model and control any heteroscedastic and serial correlation problems.

The third strength relates to the adaptation of the Ouda's prescriptive model for explaining the underlying requirements which contribute to the transition and disclosure of the accrual accounting information in the SLA. Instead of fully adopting the model, the researcher modified the Ouda's initial model to reflect the climate that fit the SLA. Therefore, the pilot interview was conducted with the senior accountants of MLGH, and two selected SLA as a basis for constructing the preliminary framework of the SLA's prescriptive model and designing the interview guide. The disclosure requirements, which lead to the extension of the prescriptive model, have also emerged from the focus group interview. The composition of focus group member involved not only from the selected SLA but also a group of experts from the NAD, SAINS, the managing partner of the locally based audit firm, and a senior accountant from the MLGH. The fact that the versatility of having participants other than the SLA has provided deeper information and factual issues, thus contribute to the robustness of interview findings. The work experience of the researcher as an insider in one of the

SLA previously has contributed in developing the bigger picture of the research and exploring what to be the ‘known’ and ‘unknown’ matters during the interview.

Next, this study applied the isomorphism concept successfully under the institutional theory, in the setting of the Malaysian public sector by choosing the SLA as a case study. The study has also identified three variables that have dual sources of isomorphism. The three variables, namely regulations, qualification of accountancy personnel, and technology infrastructure have significant associations with the accrual accounting disclosure are found to be similar as the main focus area as identified by the Malaysian government in the quest for the transition to accrual accounting.

Lastly, the mixed-method approach has minimised the presumptions in the explanations of the quantitative results found in RQ1 and RQ2 respectively (refer Chapter 5). Therefore, the focus group interview added an explanation to the quantitative findings, especially relating to underlying reasons for the non-disclosure of accrual accounting information and the importance of the five-specific variables towards the accrual disclosure. The dual research through qualitative approach enables an extraction of detailed issues and contradictions found in the analysis of the quantitative results. In essence, the mixed-method research employed in this study eliminates the weakness of both approaches by offering greater insights on the extent of disclosure and clarifying the disclosure requirements for the transition towards accrual accounting in the SLA.

7.6 LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

Like any other studies, this study has its limitations, of which some of these may be addressed in future research. The limitations which emerged during the study period are presented as follows:

The first limitation stems from the sample and scope of the study. This study is confined to only accounting practices of the local government in the state of Sarawak. Thus, no reference is made to the local government in other states, public enterprises, statutory bodies, or any other departments in the Malaysian public sector. Since this study focusses on the financial reporting and disclosure practices, a generalisation of finding beyond this scope for the SLA is not made to other states in Malaysia, other countries or context. As the accrual accounting system has yet to be fully implemented by the whole SLA, the intended outcomes of the accrual implementation may not be fully presented in interpreting the results of the study.

Future researchers may consider conducting a comparison study of the local government between various states in Malaysia to address the first limitation. The study may be possible to be conducted if the local governments across the states have at least adopted a minimum disclosure of accrual information or a common accounting basis. Since there is limited prior research on the topic of the financial reporting and disclosure practices in the Malaysian public sector, it is deemed necessary to conduct a future study using both exploratory and explanatory research. The transition or post period to the financial reform would be an interesting cut-off point of the future research to determine the extent of the accrual accounting disclosure and of how the public sector accounting is being shaped in other similar contexts. Similar case study research could also be harnessed in exploring other types of governmental accounting research such as performance measurement, cost accounting and budgeting system of the SLA.

The second limitation stems from the self-constructed disclosure index which was developed to measure the extent of accrual accounting information on the SLA's annual financial statements. Despite the arguments of no single best guidelines that can be benchmarked as the index criteria (Wallace, Naser and Mora 1994), and its higher construct validity to tailor with specific research questions (Webb, Cahan and Sun 2008), there is a likelihood that the index has its limitation. One possible limitation is that the self-constructed accrual accounting disclosure index may be only valid to the SLA themselves. Also, some of the items included in the index may not represent the SLA's actual needs for the disclosure in the annual financial statements.

Future public sector research may apply the index (SLADI) either in the current form or extended modifications for comparative purposes among the local governments, either in Malaysia or abroad by using a dichotomous scoring in determining the presence of relevant accrual accounting information. Additionally, certain items, which deemed to be applicable for the SLA such as the renewal reserve fund, and state grants and fixed payments may be ignored in the computation of the presence of index for future research. However, the comparative study within the public sector settings would easily be conducted if the index is fully based on the MPSAS, which is primarily drawn from the IPSAS.

The third limitation stems from the quantity of disclosure level and not quality. The measurement of disclosure level through the unweighted dichotomous index, of which the presence of the relevant disclosure items in the annual financial statements of individual SLA was counted, may lead to some limitations. Furthermore, better quality disclosures do not necessarily reflect the greater disclosures (Ho and Wong 2001). Therefore, future research may consider using a different scoring measurement to differentiate the disclosure quality of the annual financial statements. Also, the subjectivity arguments can be at least reduced by maintaining the non-penalty exercise to the non-applicable items instead of following a stringent dichotomous approach with a thorough filtering of those items (Cooke 1996).

The fourth limitation stems from the financial period (2012 to 2015) selected for the analysis of the quantitative phase. As stated in Chapter 4, the cut-off point of the financial period 2015 is made due to the unavailability of 2016 annual financial statements and onwards at the time of data analysis stage. Therefore, the limited period only allows for a specific inference that could not be generalised to other periods and limited by context. The results of the study have a low level of disclosure quantity of accrual information relating to the twenty-four SLA. Future studies should consider extending the number of observation years, thus expanding the data analysis. A pre-post study of the accrual accounting and reporting disclosures could also be conducted in future, which covers the period before and after the implementation of accrual accounting in the SLA.

The fifth limitation stems from the sample size of the participants. As the study employed a focus group approach due to some considerations (refer section 4.7), the number of participants involved in the interview is limited. Therefore, it is possible that the views expressed in the interview may not represent the whole picture about the governmental accounting of the twenty-six SLA. Except for the group of experts, the rest of the interviewees represent the SLA. So, their responses towards some issues may be biased. Some of the issues discussed in the focus group interview were also somewhat sensitive and confidential. This constraint may influence the views expressed by the interviewees, particularly the SLA.

One possible suggestion for future research is to conduct a semi-structured interview with the whole twenty-six SLA. However, the future research may incur additional resources due to the wide coverage of the interview process. The constraint, among others, is because of the geographical and connectivity factors of the state of Sarawak which influence the current study to opt for a focus group interview (refer subsection 4.7.1). Future research may also conduct interviews with other government regulatory bodies such as the SFS and the State Treasury Department to obtain further insights on the financial reporting and disclosure practices in Sarawak, which has positive externalities to the SLA. As a matter of fact, the previous position of the researcher who was an insider to one of the SLA has imparted many implications in immersing the views of the interviewees, thus providing a reliable empirical evidence not only to the policymakers and regulators, but also to the SLA themselves.

7.7 CONCLUDING REMARKS

This study imparts an original contribution to the accrual accounting and disclosure practices literature, particularly in the emerging economies. This study may demonstrate whether the SLA are still on a long journey from adopting accrual accounting or otherwise. It is unlikely that accrual accounting will be implemented successfully without recognising the significance of the requirements as revealed in this study. These findings are beneficial, particularly to the authorities in Sarawak, and generally in Malaysia including policymakers, regulators, government departments/agencies that would like to realise the accrual accounting implementation as part of the government transformation agenda. Hence, these noteworthy findings accentuate the importance of accrual accounting as a tool in improving accountability, transparency, and decision-usefulness of the governments by way of reforming public finance. In conclusion, the change to accrual accounting will be a ‘road that can be taken’ by the SLA.

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APPENDIX 2.1: MILESTONES OF THE DEVELOPMENT OF PUBLIC SECTOR ACCOUNTING IN MALAYSIA

Year	Milestones
1957	Introduction of the Financial Procedure Act 1957 and the Audit Act
1957 - 1960s	Implementation of TBS for the government budgeting
1969	Introduction of PPBS to replace TBS
1974	Modified cash accounting is practiced by the Federal and State governments
1982	Incorporation of a Statement of Assets and Liabilities in the format of public accounts
1984	Introduction of computerised accounting system
1990	MBS is introduced to replace PPBS
1992	MAS is implemented to supplement the use of MBS
1995	Introduction of computerised accounting system, known as SAGA for the Statutory Bodies
2000	Introduction of Electronic Budgetary Planning and Control System
2005	Introduction of Standard Computerised Accounting System of State governments
2006	Introduction of GFMAS, a hybrid of cash and accrual reporting
2010	Implementation of accrual accounting as national policy measure
2013	Introduction of MPSAS
2015	Initial schedule for the implementation of accrual accounting at the Federal government level
2016	Initial schedule for the implementation of accrual accounting at the Federal government level
2017	48 Federal statutory bodies and 28 local governments in the Peninsular States of Malaysia have successfully adopted MPSAS
2018	New implementation date for the implementation of accrual accounting at the Federal government level
2019	New implementation date for the implementation of accrual accounting for the few State governments
2020	Mandatory adoption of MPSAS for the statutory bodies, The adoption is also extended to the local governments and State religious departments

Source: Author’s own research approach

APPENDIX 2.2: CODING LIST OF SARAWAK LOCAL AUTHORITIES

No.	SLA	Code
1.	Kuching North City Hall	C1
2.	Kuching South City Council	C2
3.	Miri City Council	C3
4.	Bintulu Development Authority	M1
5.	Sibu Municipal Council	M2
6.	Padawan Municipal Council	M3
7.	Bau District Council	D1
8.	Betong District Council	D2
9.	Dalat & Mukah District Council	D3
10.	Kanowit District Council	D4
11.	Kapit District Council	D5
12.	Lawas District Council	D6
13.	Limbang District Council	D7
14.	Lubok Antu District Council	D8
15.	Lundu District Council	D9
16.	Marudi District Council	D10
17.	Matu & Daro District Council	D11
18.	Maradong & Julau District Council	D12
19.	Samarahan District Council[39]	D13
20.	Saratok District Council	D14
21.	Sarikei District Council	D15
22	Serian District Council	D16
23.	Sibu Rural District Council	D17
24.	Simunjan District Council	D18
25.	Sri Aman District Council	D19
26.	Subis District Council	D20

[39] For the purpose of this research, which covers an examination of the annual financial statements for the period from 2012 to 2015, Samarahan is categorised under the category of "District Council". Refer to footnote no. 14

APPENDIX 2.3: SUMMARY OF THE ACCOUNTING AND REPORTING STUDIES IN MALAYSIAN LOCAL AUTHORITIES

Author/ Year	Research Site	Main Key Findings	Relate to Research Objective (RO)
Coombs and Tayib (1998)	Comparative study of 5 councils in the Peninsular States with selected local governments in the UK	- The study employs the CIPFA's requirements adopted by the UK, which encompasses 55 disclosure items for the statutory and non-statutory disclosure index - No significant influence of the CIPFA's requirements over the MLA's financial disclosure despite the historical relationship between both countries	RO1 & RO2
Tayib, Coombs, and Ameen (1999)	15 councils in the Peninsular States	- Big expectation gap between the users' demands from the financial reports and the statutory requirements (regulations) - Lack of specific accounting standards and disclosure presentation	RO2 & RO3
Coombs and Tayib (2000)	Comparative study of 5 councils in the Peninsular States with selected local governments in the UK	- No particular professional bodies oversee the formulation of accounting standards and disclosure in the MLA, unlike in the case of the UK who adopts CIPFA - The gap of disclosure level for the revenue items, which is much subjective, due to the lack of specific regulations governing the financial reporting disclosure in the MLA - Financial disclosure of the MLA is influenced by the external auditor's recommendation	RO1, RO2 & RO3
Ibrahim et al. (2004)	70 councils in the 4 northern states of Peninsular Malaysia	- Non-audit compliance in the fixed asset register, other receivables, cash flow statement, and deposit accounts	RO1 & RO2
Omar, Amran, and Aripin (2005)	The state of Kedah	- Low level of accrual accounting disclosure due to lack of human resource capacity and regulations	RO1 & RO2
Ahmad and Abdul Aziz (2005)	The state of Johor	- Timeliness factor and size of local authorities determine the quality of financial reports	RO2
Mohamed, Atan, and Horoen (2006),	42 councils in the Peninsular States of Malaysia	- The needs to have specific body to develop accounting standards for MLA, with a close synergy between the Federal and State governments, and also professional bodies	RO3

Mohamed et al. (2010)	Not mentioned specific councils	- No common set of accounting standards for the MLA, which creates loopholes in the financial reporting requirements	RO3
Abu Hassan, Hassan, and Md Nor (2007)	96 councils in the Peninsular States	- By using the ‘modified Local Government Accountability Index, the reporting quality is still below the satisfactory level and found to have a direct association with the size, wealth and qualification of the chief accounting officer	RO1 & RO2
Mohamed, Atan, and Ab Majid (2012)	75 councils in 11 states of the Peninsular Malaysia	- Dissimilar disclosures on the content and form of the Statements of Financial Position and the Statements of Financial Performance among the 11 states, due to the absence of standardised regulations	RO1 & RO2
Mohammad, Abdullah, and Deris (2014)	3 councils in the Peninsular States of Malaysia	- Accountability index and council size have significant association with timely financial reporting	RO2
Ali and Saidin (2016)	Local authorities in the Peninsular States of Malaysia	- Mandatory disclosure index, which consists of 63 items is constructed based on the legal and regulatory requirements - The robustness on the index construction is restricted by the adequate sampling of the financial statements	RO1

APPENDIX 3.1: ADVANTAGES OF ACCRUAL ACCOUNTING

Characteristics	Explanations on the Advantages of Accrual Accounting
Robustness of report	Financial report under accrual accounting is more comprehensive, consistent, reduce opportunities for fraud and corruption, and difficult to manipulate
Outputs based and decision impacts	It puts greater focus on outputs and long-term impact of decisions rather than just inputs, leading to an efficiency in financial management; and
Better cash management	It leads to better cash management as accrual accounting accounts for all revenue and expenses that involve current and future cash flows
Better planning and decision making	It facilitates better planning and decision-making for measuring the economy, efficiency and effectiveness of public policies
Recognition of all employee-related costs	It recognises all employee-related costs which allow for the comparison of various types of employment or remuneration options
Greater comparability of management performance	It provides greater comparability of management performance results which are not affected by the timing of cash payments and receipts and which includes information about fixed and current assets and liabilities
Full measurement of revenues and costs	It provides a better measurement of revenues and costs on an aggregated basis including comparisons between years. Thus, full cost of providing services can be compared with the private and voluntary sectors
Basis for measurement of financial position	It provides a basis for the measurement of the financial position and the net worth of the budget sector and the whole of government
Useful for evaluation of government's performance	It is useful in evaluating a government's performance, regarding its service costs, efficiency, and accomplishments
Disclosure of commitments and liabilities	It is more reliable for recognising, measuring and disclosing the government financial commitments and liabilities which may have accumulated over time
Long-term perspective and better information	It provides longer-term perspective and better information for considering intergenerational fairness, liquidity and resources management, and basis for pricing products and services

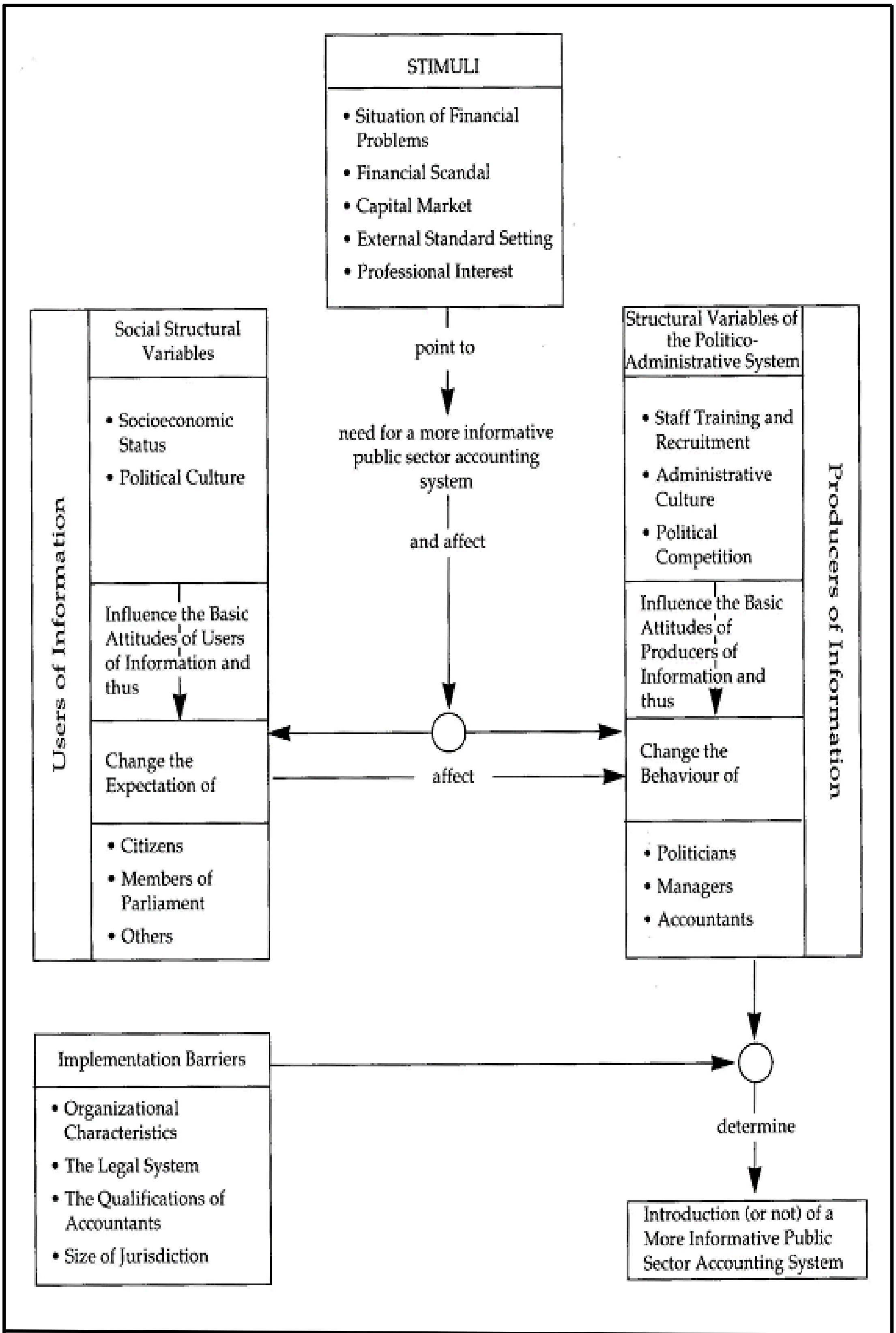
Source: Author's own research approach is summarised based on the selected accrual accounting literature (refer subsection 3.3.2)

APPENDIX 3.2: EXAMPLES OF THEORIES APPLIED IN PUBLIC SECTOR

Theories / models / frameworks	Authors applying the theory
Agency theory	Bolivar et al. (2007) Laswad et al. (2005) Caba Perez et al. (2008)
Regulation inside government	Hood et al. (1998; 1999) Abu Hasan et al. (2013)*
Public accountability paradigm / Public sector reform	Coy and Dixon (2004) Ryan et al. (2002) Tooley et al. (2010)
Governance	Keasey and Wright (1993) Hodges et al. (1996)
New public management	Dunleavy and Hood (1994) Pollitt (2007) Abu Hasan et al. (2013)*
Contingency theory	Christensen and Yoshimi (2003) Marcuccio and Steccolini (2009)* Luder (1992)
Audit explosion	Abu Hasan et al. (2013)* Power (1994)
Institutional theory	Mussari and Monfardini (2010) Hoque (2008) Abu Bakar (2013)*
Public choice theory	Giroux (1989) Herawaty and Hoque (2007)*
Incentive theory	Perez et al. (2008)
Legitimacy theory	Marcuccio and Steccolini (2009)*
Stakeholder theory	Herawaty and Hoque (2007)*
Politico-economic model of positive accounting theory	Cheng (1992) Smith (2004)

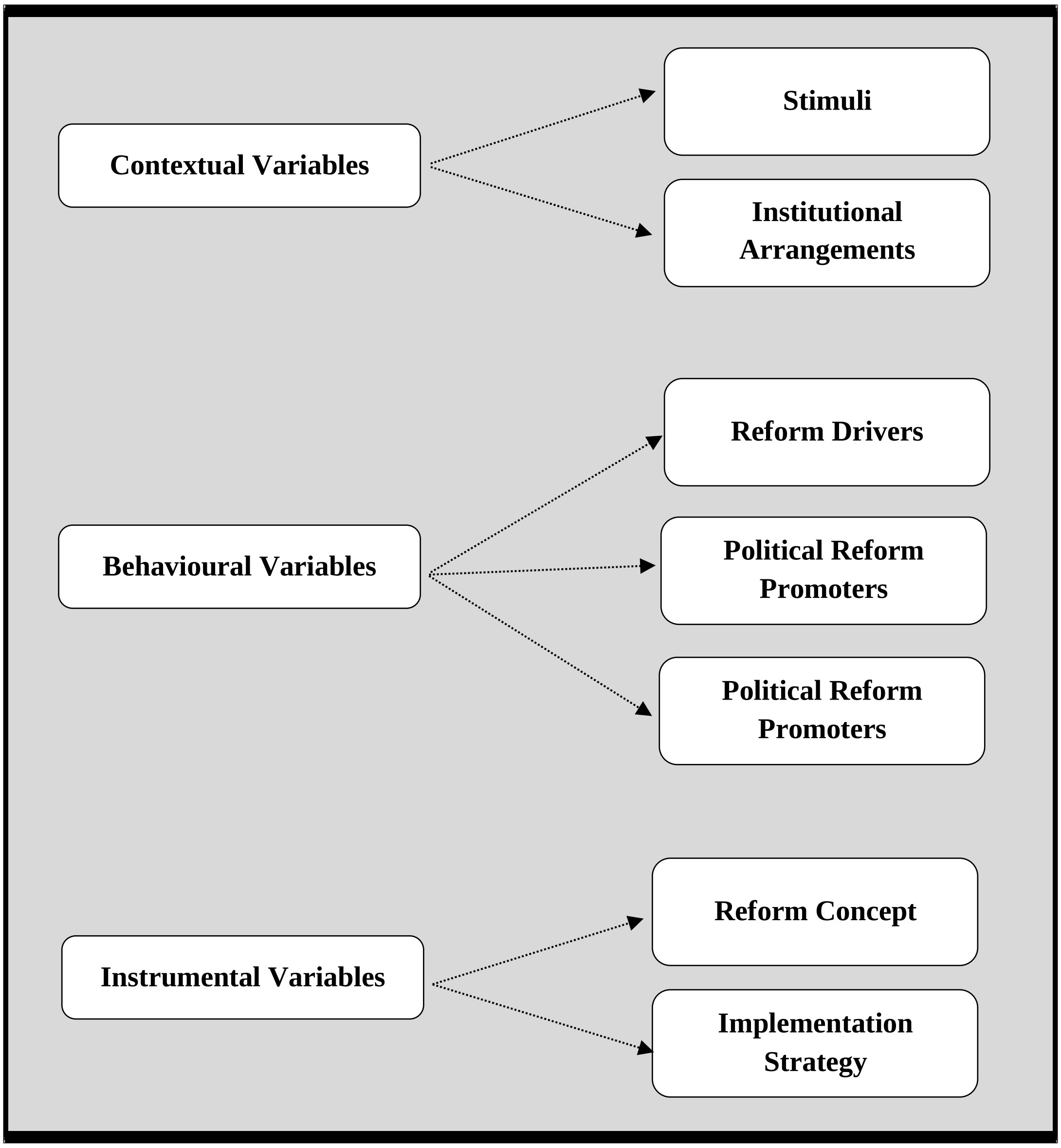
Based on the research work of Abu Hassan and Abu Bakar (2015, 138)
*combine two or more theories

APPENDIX 3.3: CONTINGENCY MODEL OF PUBLIC SECTOR ACCOUNTING INNOVATIONS- DETAILED MODEL



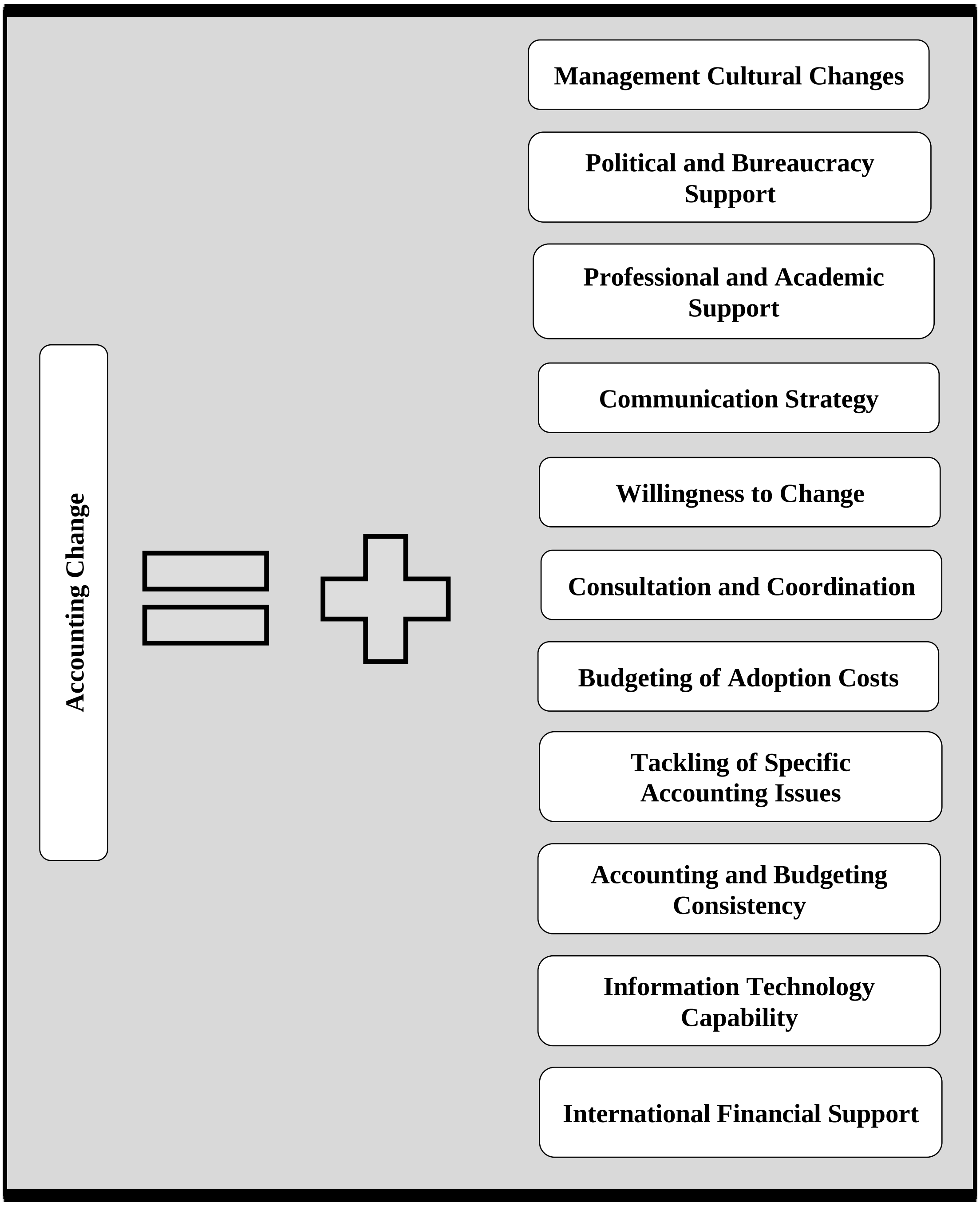
Source: The diagram above shows the initial contingency model developed by Lüder (1992, 111).

APPENDIX 3.4: THE RELATIONSHIP OF THE VARIABLES IN THE FMR MODEL



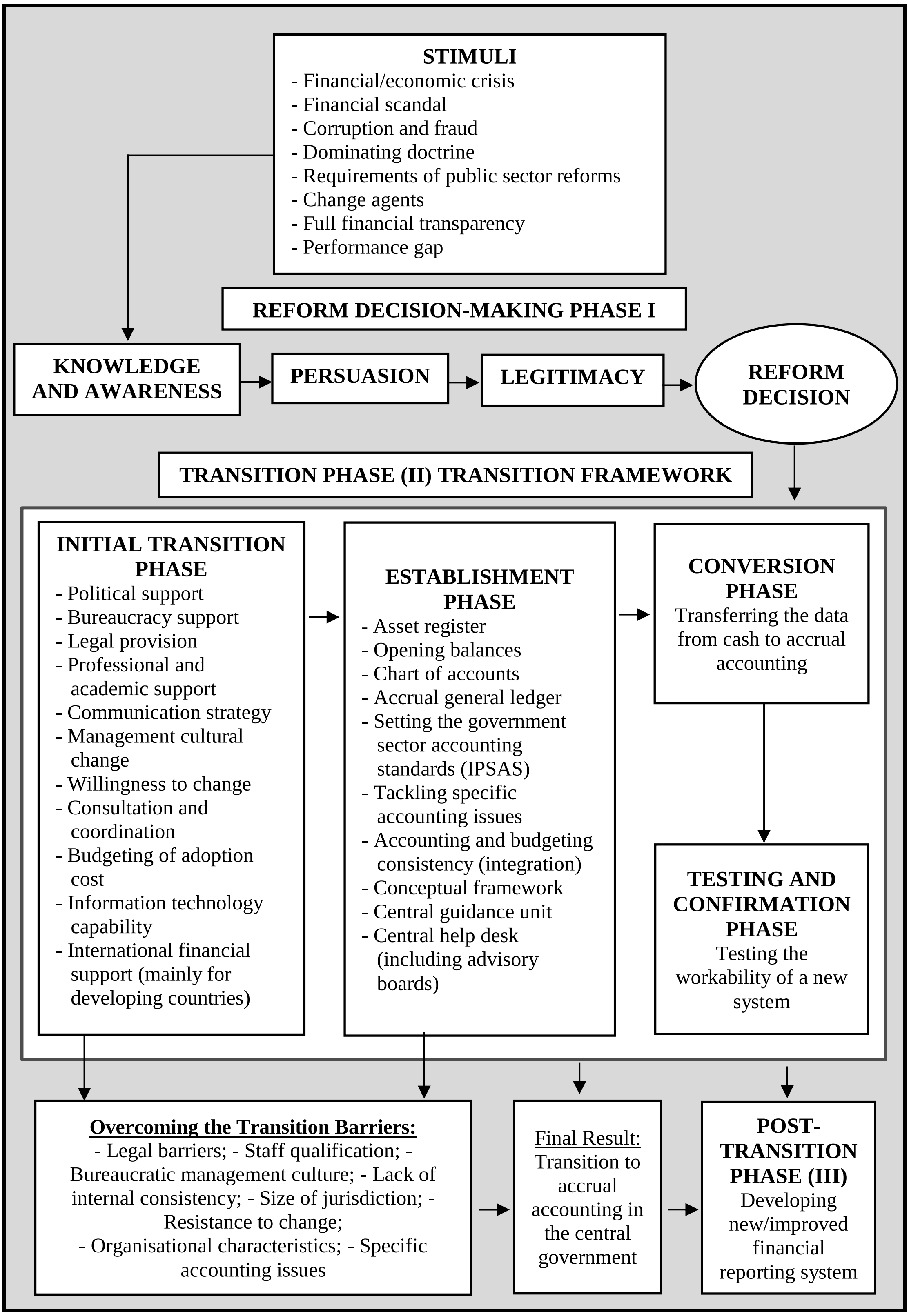
Source: Author's own diagram based on the Lüder's (2001) work on the revised contingency model

APPENDIX 3.5: THE RELATIONSHIP BETWEEN THE IMPLEMENTATION FACTORS AND ACCOUNTING CHANGE IN BRM



Source: Author's own diagram based on the Ouda's (2004) work on the BRM.

APPENDIX 3.6: A PRESCRIPTIVE MODEL OF THE TRANSITION TO ACCRUAL ACCOUNTING



Source: The diagram above shows the prescriptive model developed by Ouda (2010, 72), which becomes the basis for addressing the third research objectives.

APPENDIX 4.1: DISCSLOURE INDEX INSTRUMENT FOR SARAWAK LOCAL AUTHORITIES

Category	Sub-Category	Disclosure Item	Information Item
1. Statement of Financial Position	a. Current assets	i. Cash and cash equivalents	- Cash and cash equivalents consist of cash on hand, cash in transit and balances with banks
		ii. Short-term receivables	- Receivables may include trade and non-trade receivables, and expected to be realised within 12 months after the reporting date, which are recognised at fair values at initial recognition. Trade receivables encompass assessment rates and miscellaneous services rendered or goods sold as part of normal operations. While, non-trade receivables, include return on investments (dividends), interest income, staff loans, prepayments and sundry receivables. Bad debts are written off when identified and approved. Allowances for estimated irrecoverable amounts are recognised at each reporting date when there is an objective evidence of asset which is impaired, such as significant delay in payments and upon legal actions
		iii. Investment in renewal fund	- Investment in renewal fund is monies invested with the licenced banks and financial institutions for the purpose of the eventual replacement of any property, plant and equipment as stipulated under Section 46 of the LAO, and Regulation 34 & 36 of the LAFR. The investment are short term, and highly liquid investments, which are readily convertible to known amounts of cash and are subjected to a significant risk of change in value

		iv. Investment in reserve fund	- Investment in reserve fund is monies invested with the licenced banks and financial institutions, based on the maximum sum available for transfer after the allowance has been made for an adequate surplus to meet commitments in the early part of the following year as stipulated under Regulation 33 & 36 of the LAFR. The investments are short term, and highly liquid investments, which are readily convertible to known amounts of cash and are subjected to a significant risk of change in value
		v. Investment in general fund	- Investment in general fund is monies held for general investments with the licenced banks and financial institutions. The investments is short term, highly liquid investments, which are readily convertible to known amounts of cash and subject to an significant risk of change in value
	b. Non-current assets	i. Property, plant & equipment	- Property, plant and equipment are initially stated at cost or valuation less accumulated depreciation and impairment losses
		ii. Investment in controlled entities, jointly controlled entities and associates	- Investment in controlled entities, jointly controlled entities and associates are accounted for using the equity method based on the audited or management financial statements of the investment companies
		iii. Other investments	- Other investments are generally classified for the investments in unlisted trust fund, which are stated at cost less allowance for the diminution in value of investments for recognising of any reductions, other than a temporary diminution in value of the investments

		iv. Community assets	- Community assets, consist of asset purchase and expense incurred for infrastructure development, services and social project shall be debited to the community asset accounts by applying accrual basis of accounting. The assets are not generally determinable in terms of economic life and value, nor exist in the market
	c. Current liabilities	i. Short-term payables	- Short-term payables consist of trade payables, other payables and accruals, are stated at cost, which is the fair value of the consideration to be paid in the future, within twelve months after the reporting date for works, supplies and services, as well as deposit held from contractors/suppliers
	d. Non-current liabilities	i. Trust fund ii. Deferred development fund iii. Long-term borrowings	- Trust fund, consists of government trust account, public trust account, deposits, and other trust accounts and to be recognised in accordance with the relevant laws or the terms of the trust. All payments and receipts transactions shall be accounted for by applying accrual basis of accounting. - Deferred development fund is recognised using capital approach, under which a development grant is credited directly to non-current liabilities. The grant, which is used for infrastructure development, services and social project are capitalised initially at their fair value until there is a reasonable assurance that the SLA will comply with all attaching requirements and, grants will be received - Long-term borrowings consist of Federal and State loans, are stated at initial recognition of loans less repayment amount. Any interest borrowing costs shall be recognised as an expense if they are incurred

	e. Net asset/equity	i. Renewal reserve fund ii. Local authority reserve fund iii. Accumulated surpluses/(deficits) of general fund	- A renewal reserve fund is set aside annually based on the depreciation amount of property, plant and equipment value above RM10,000 for the entire or partial replacements of those assets as stipulated under Section 46 of the LAO and Regulation 34 of the LAFR - Transfer to reserve fund is made annually after the accounts for each year have been balanced and determined based on the maximum sum available for transfer, after allowance has been made for an adequate surplus to meet commitments in the early part of the following year as stipulated under Regulation 33 of the LAFR. - Net surpluses/deficits for the period shall be transferred to the accumulated surplus or deficit in the Statements of Net Assets/Equity under the SLA's general fund
2. Statement of Financial Performance	a. Revenue	i. Taxation revenue ii. Non-taxation revenue	- Assessment rates are recognised at the point of occurrence of taxable event - Non-taxation revenue includes the following items: - Licences and permits are recognised at the point of licences and permits issued on a time proportion basis - Rentals, sales and services are recognised when services are rendered and the SLA has transferred to the purchaser the significant risks and rewards of ownership of the goods

			- Interest and dividends are recognised on a time proportion basis that the effective yield of the asset is taken into account, and when the SLA's right to receive payment is established
		iii. Non-revenue receipts	- Non-revenue receipts include the following items: - Compound, fines and penalties are recognised when payment is received and not when the fine is imposed because the amount of fines cannot be reliably measured in view of the various discount/waiver/legal dispute - Receipts from miscellaneous sources and other receipts are recognised when the stage of completion of the transaction at the reporting date and amount of revenue can be measured reliably, and it is probable that the economic benefits or service potential associated with the transaction will flow to the SLA - Gain arising from disposal of inventories and property, plant and equipment are recognised in the period in which they relate
		iv. State grants and fixed payments v. Federal grants and reimbursements	- Federal and State grants are recognised initially at their fair value until there is a reasonable assurance that the SLA will comply with all attaching requirements and operating grants will be received
		vi. Amortisation of fund	- Amortisation of deferred development fund is charged to the Statement of Financial Performance to reflect the offsetting of that fund based on the wearing out of the community asset over its lifetime upon completion of the projects

			- Amortisation of renewal fund is charged to the Statement of Financial Performance to reflect the offsetting of reserves based on the depreciation amount of property, plant and equipment purchased through that fund as stipulated under Section 46 of the LAO and Regulation 34 of the LAFR
	b. Expenses	i. Expenses are aggregated according to their nature, programme or purpose	- Expenses are recognised in the period to which they relate, either on the statement of financial performance or in the notes, an analysis of expenses using classification based on nature or function - Operating expenses include items such as emolument and related expenditure, general administration, maintenance, finance cost, provision of impairment, and bad debt written off
		i. Gross surplus/(deficit) from operating activities	
	c. Depreciation/amortisation		- Depreciation and amortization expenses are disclosed separately after arriving at gross surplus/(deficit) from the operating activities
		i. Community assets	- Amortisation of development expenditure is charged on a straight line basis to reflect the wearing out of the community asset over its lifetime upon completion of the projects
		ii. Property, plant & equipment	- Depreciation is charged on a straight-line basis at rates calculated to allocate the cost of valuation of an item of property, plant and equipment, less any residual value, over its remaining useful life

	d. Reserve transfer	i. Transfer to reserve fund ii. Transfer to renewal fund	- Transfer to reserve fund is affected by journal entries, based on the maximum sum available for transfer after allowance has been made for an adequate surplus to meet commitments in the early part of the following year, as stipulated under Regulation 33 of the LAFR - Transfer to renewal fund is provided based on the annual setting aside of depreciation amount of property, plant and equipment where the replacement value thereof exceeds ten thousand ringgit as stipulated under Section 46 of the LAO and Regulation 34 of the LAFR
		i. Net surplus/(deficit) for the period	
3. Statement of Changes in Net Asset/ Equity		i. Surplus or deficit for the period ii. Separate disclosure of reserves, e.g. accumulated general fund, renewal fund and local authority fund, which are dependent on the materiality and applicability of their balances iii. Each item of revenue and expense is recognised directly in net asset/equity, and total of these items iv. For each component of funds, a reconciliation between the carrying amount at the beginning and the end of the period, separately disclosing each change v. The balance of accumulated surpluses or deficits at the beginning of the period and at the reporting date, and movements for the period vi. For each components of net asset/equity disclosed, the effects of changes in accounting policies and correction of fundamental errors	

4. Cash Flow Statement		i. Reporting cash flows from operating activities are disclosed separately a. Under the direct method Major classes of gross cash receipts and gross cash payments are disclosed separately. Reconciliation of the surplus/deficit from ordinary activities with the net cash flow from operating activities may be provided as part of the cash flow statement or in the notes to the accounts, or; b. Under the indirect method Surplus or deficit is adjusted for the effects of transactions of a noncash nature (such as depreciation, gains and losses of property, plant and equipment, and provision for amortisation of renewal and development funds), any deferrals or accruals of past or future operating cash receipts or payments (changes during the period in inventories and operating receivables and payables), and items of revenue or expense associated with investing or financing cash flows. ii. Net cash flows from operating activities disclosed separately iii. Reporting cash flows from investing activities - Major classes of gross cash receipts and gross cash payments arising from investing activities iv. Net cash flows from investing activities disclosed separately v. Reporting cash flows from financing activities disclosed separately - Major classes of gross cash receipts and gross cash payments arising from financing activities vi. Net cash flows from financing activities disclosed separately vii. Cash flows associated with extraordinary items disclosed separately viii. Cash flows associated with interest and dividends, or similar distributions received and paid as either operating, investing or financing activities are disclosed separately ix. Components of cash and cash equivalents, and reconciliation of the amounts in the cash flow statement with the equivalent items reported in the statement of financial position disclosed

5. Statement of Budget Performance		i. A comparison of budget and actual amounts either as a separate additional financial statement or as a budget column in the financial statements ii. Any changes between the original and final budget, a cross reference is reported by way of note disclosure in the financial statements iii. Budget details, which are aggregated into broad classes, such as common budget heads and budget classifications
6. Notes to the Accounts		i. Present information about the basis of preparation of the financial statements and the specific accounting policies used ii. Disclose the information required that is not presented on the face of the statement of financial position, statement of financial performance, statement of changes in net assets/equity, or cash flow statement iii. Provide additional information that is not presented on the face of the statement of financial position, statement of financial performance, statement of changes in net assets/equity, or cash flow statement, but that is relevant to an understanding of any of them iv. Other disclosures, including contingent liabilities and unrecognised contractual commitments; and non-financial disclosures, e.g., the SLA's financial risk management objectives and policies

APPENDIX 4.2: PARTICIPATION INFORMATION STATEMENT

Curtin University
Sarawak Malaysia

Department of Accounting
Faculty of Business
Curtin University Sarawak Campus
CDT 250, 98009 Miri
Sarawak, Malaysia.

Participation Information Statement

Transition Towards Accrual Accounting and Disclosure Requirements in the Malaysian Public Sector: A Case of Sarawak

Purpose of Research

This research is part of the PhD study. The study will seek to explore the disclosure requirements for the transition to the accrual basis of accounting in Malaysia with a focus on local authorities in the state of Sarawak. Specifically, this study aims to obtain an insight on the extent of disclosure of accrual accounting information in the annual financial statement and also examine the determinants associated with the transition towards accrual accounting which will be deployed using mixed methods approach. Therefore, this interview will provide valuable inputs and deeper understanding whether the extent of the disclosure of accrual accounting in the annual financial statement is associated with certain characteristics, such as technology infrastructure, size of local authorities, qualification of accountancy personnel, audit institution size and regulations.

Your role

The study involves obtaining information from the top executives and/or relevant officers who are directly involved in the financial reporting activities. Permission will be sought from individual participants for the interviewer to use a voice recorder, in addition to transcribing the answers to the particular questions. The focus group interview should take between one to two hours.

Structure of the interview

There will be two parts of the focus group interview:

Part 1: This part addresses the current state of financial reporting within your organisation, perceptions regarding the usefulness of the financial disclosure provided by accrual and cash based accounting, as well as the process involved in the preparation of annual financial statement.

Part 2: The primary interview issue will be addressed here. The purpose is to understand the requirements that contribute to the transition and disclosure of accrual accounting information in the Sarawak local authorities.

Consent to Participate

Participation in the focus group interview process is completely voluntary: you are not obliged to participate and if you do participate, you can ask the interview to be stopped at any time.

You are also free to withdraw your unprocessed or processed data at any stage without explanation or prejudice.

Confidentiality

1. The study is conducted by Hadysyam Junaidi, PhD Candidate/Interviewer and Assoc. Prof. Dr. Junaid M. Shaikh, Principal Investigator/Supervisor.
2. Confidentiality of all documentation/ interview material is preserved.
3. Resulting reports and papers will conceal the identity of the local authorities and any personnel interviewed.
4. Once collated, a copy of the results of the study will be distributed to the interviewed organisation and again, all identities will be concealed in any publication.

For additional information, kindly contact Hadysyam Junaidi on +6019 8271976 or by email: hadysyam.junaidi@postgrad.curtin.edu.my, hdsyam@gmail.com or the supervisor, Assoc. Prof. Dr. Junaid M. Shaikh on +6085 443939 ext. 5082 or email: junaid.s@curtin.edu.my

Curtin University Human Research Ethics Committee (HREC) has approved this study (HREC number RSDE-44-15/AR01). Should you wish to discuss the study with someone not directly involved, in particular, any matters concerning the conduct of the study or your rights as a participant, or you wish to make a confidential complaint, you may contact the Ethics Officer on (08) 9266 9233 or the Manager, Research Integrity on (08) 9266 7093 or write to email hrec@curtin.edu.au.

APPENDIX 4.3: CONSENT FORM

Consent Form

Department of Accounting
Faculty of Business
Curtin University Sarawak Campus
CDT 250, 98009 Miri
Sarawak, Malaysia.

Transition Towards Accrual Accounting and Disclosure Requirements in the Malaysian Public Sector: A Case of Sarawak

PARTICIPANT CONSENT FORM

I,…………………………………………………………………………………….…..[name]

…………………………………………………………………………………………………

……………………………………………………………………..[organisation and address]

hereby acknowledge that:

(a) The focus group interview is for the purpose of research;

(b) I have been informed that I am free to withdraw from the project at any time without explanation or prejudice and to withdraw any unprocessed data I have provided;

(c) My name will not be mentioned anywhere, or referred to, to any individuals or groups or in any publications arising from the research;

(d) I agree to allow the interviewer to use a digital voice recorder to assist in the provision of a true and accurate record of the focus group interview;

(e) I have been informed that the confidentially of the information I provide will be safeguarded, subject to any legal requirements; and

(f) I agree to participate in this research study.

Signature: ....

Name: ....

Designation: ………………………………………………...

Date: ....

APPENDIX 4.4: INTERVIEW GUIDE

<u>Focus Group Interview Guide</u>

Part 1: General Questions

1. <u>Accounting basis:</u>

   - What type of accounting basis is currently adopted by your council in the preparation of the annual financial statements and budget reports?

2. <u>The current state of financial reporting and disclosure practices:</u>

   - What is your view(s) about the current state of financial reporting and disclosure practices (e.g. financial audit compliance)? What is the procedure(s) that you follow in identifying the format and contents of the annual financial statements and why?

3. <u>Perceptions on accounting and reporting practices:</u>

   - What is your view(s) regarding the benefits of the basis of accounting used in the preparation of annual financial statements, and how? Does it has any shortcomings? Why?

4. <u>Reasons for disclosing accrual accounting information:</u>

   - About the implementation and disclosure of full accrual accounting information, there are certain items that have been identified as a 'disclosure index instrument for Sarawak local authorities' (please refer to the disclosure index checklist). Please explain briefly, what are the motivation and challenges for disclosing (not disclosing) accrual accounting information in the annual financial statement? Why?

5. <u>Determinants affecting the accrual accounting disclosure:</u>

   - How do you rank the importance of the following factors in influencing the accrual accounting disclosure in the annual financial statement? Examples of the determinants include, but not limited to:

     (i) Computerised accounting system
     (ii) Regulations
     (iii) Academic and professional background of the accounting personnel
     (iv) Size/ type of local authorities
     (v) Influence of audit institutions

   - Apart from the determinants above, is there any other factors that you think important in influencing the disclosure of accrual accounting information in the annual financial statements of the SLA?

Part 2: Primary Interview Questions

1. <u>Reform Decision-Making: Phase I</u>

    (i) *Stimuli Factors*

    - What has brought about the change of the accounting system in your council: Related examples of stimuli factors that may be included in the discussion, but not limited to: Why?

        (i) Government directive/ programme
        (ii) Financial issues
        (ii) Organisational efficiency and effectiveness

    (iii) *Knowledge & Awareness*

    - Please state any public/ private institutions that have contributed to the development of accounting innovation in your council? In your opinion, please state any other institutions that should take the initiative to improve the SLA accounting innovation.

    (iv) *Persuasion*

    - In the efforts to move towards full accrual accounting, which authorities that you think have the power to decide and launch the transition process, and why? What is the level of communication that has been made between the SLA and State authorities, if any?

    (v) *Legitimacy*

    - How does your council legitimise the accounting innovation? Which parties are involved in the process of obtaining legitimacy?

    (v) *Reform-decision*

    - To what extent does the reform-decision in the financial management reform has taken place in your council? Among others, the reform can be in the form of revolutionising the accounting software systems and financial reporting format.

2. <u>Transition Framework: Phase II</u>

    (A) *Initial transition phase*

    - The following factors might play a significant role in the initial transition phase of the government accounting innovation. Please discuss on how you perceive the following basic requirements can put the full accrual accounting system into real practice in the SLA? To what extent do the following factors have taken place in your council? If not, why?

        (i) Information technology capability
        (ii) Legal provision
        (iii) Human resource capacity
        (iv) Political support
        (v) Bureaucracy support

(vi) Professional and academic support
(vii) Government financial support
(viii) Communication strategy
(ix) Management cultural change
(x) Willingness to change
(xi) Budgeting of adoption cost
(xii) Consultation and coordination

- Please state any other factors not mentioned in the above examples in which might play a role in the initial transition phase of transitioning towards full accrual accounting.

(B) *Establishment phase*

- Please explain briefly, what is the current state of the technical requirements as listed below in your council. What challenges are faced by your council, if any, in ensuring the technical requirements in place?

(i) Asset register
(ii) Account payables/receivables/community asset
(iii) Opening balances
(iv) Chart of accounts
(v) Accrual general ledger
(vi) Accounting and budgeting consistency (integration)
(vii) Tackling specific accounting issues
(viii) Setting the accounting policies and guidelines
(ix) Conceptual framework
(x) SLA guidance unit
(xi) Accrual accounting steering committee

- Please state any other factors not mentioned in the above examples in which might play a role in the establishment phase of transitioning towards full accrual accounting.

(C) *Conversion Phase*

- Please state the level of conversion phase that has undertaken, if any, in your council. The conversion phase can be in the form of migrating accounting data to a new/improved accounting system. If the conversion phase is yet to be embarked in your council, why?

(D) *Testing and Confirmation Phase*

- Please state the workability of the new/improved accounting system. If the testing and confirmation phase is yet to be embarked in your council, why? If yes, how does it handle the workability of accrual accounting, which consists of new software and modifications to the existing cash system? Examples of the enhanced module that may be subjected to the testing process are:

(i) Assets register
(ii) Account receivables (assessment rates)
(iii) Enhancement to existing cash-based financial management systems, that has the interface link with budgetary system and accruals general ledger, if any

3. *Post-Transition: Phase III*
- Please state the extent of post-transition phase that has taken place in your council. This phase entails an integration between the new/improved accounting systems (computerised accounting system) with the production of annual financial statements. If the post-transition phase is yet to be embarked in your council, why?

4. Are there any other comments you would like to discuss with regards to the matters raised above in which would be helpful in developing a comprehensive framework for the transition towards full accrual accounting in the SLA?

APPENDIX 5.1: ACKNOWLEDGMENT LETTER OF THE DISCLOSURE INDEX INSTRUMENT BY NATIONAL AUDIT DEPARTMENT OF MALAYSIA

JABATAN AUDIT NEGARA NEGERI SARAWAK
NATIONAL AUDIT DEPARTMENT
Tingkat 4, Bangunan Sultan Iskandar
Jalan Simpang Tiga
93518 Kuching
SARAWAK

Tel : 082-242372
Faks : 082-242191
Laman Web : http://www.audit.gov.my

Rujukan Kami : AUDIT/W/599/1 Jld.6(72)
Tarikh : 10 Oktober 2016
9 Muharam 1438H

Encik Hadysyam Junaidi
Faculty of Business and Humanities
Curtin University Sarawak Malaysia
CDT 250 98009 Miri
Sarawak

Tuan,

PEMBANGUNAN PENDEDAHAN MINIMUM INSTRUMEN INDEKS PENYATA KEWANGAN UNTUK PIHAK BERKUASA TEMPATAN (PBT) DI NEGERI SARAWAK

Dengan hormatnya saya merujuk surat tuan bertarikh 30 Mei 2016 mengenai perkara di atas.

2. Sukacita dimaklumkan bahawa pihak Jabatan Audit Negara amat berbesar hati atas pelawaan pihak tuan memilih kami sebagai salah satu agensi dalam menyemak dan mengesahkan kajian yang dibuat ini.

3. Jabatan Audit Negara tidak ada halangan malah menyokong usaha ini tertakluk kepada kelulusan daripada pihak Kementerian Kerajaan Tempatan Sarawak supaya transformasi ke arah sistem perakaunan akruan bagi penyata kewangan PBT dapat direalisasikan. Melalui perakaunan akruan, ianya dapat memberi gambaran mengenai kedudukan kewangan yang lebih tepat serta dapat meningkatkan ketelusan dan akauntabiliti dalam pengurusan kewangan. Pihak kami juga ingin mencadangkan supaya Peraturan Kewangan yang digunakan oleh PBT juga turut dikemaskini memandangkan Peraturan Kewangan yang sedia ada sudah lama (LAFR 1997) dan perlu penambahbaikan selaras dengan perubahan yang cuba diketengahkan iaitu kepada sistem perakaunan akruan.

4. Sebarang perbincangan lanjut berkenaan kajian ini pihak tuan boleh menghubungi wakil saya iaitu Puan Dayang Mushilawati Binti Abang Mostapha di talian 082-453745.

Sekian, terima kasih.

"BERKHIDMAT UNTUK NEGARA"

'Audit Berkualiti Meningkatkan Akauntabiliti'

Saya yang menurut perintah,

(HAJAH KARTINA BINTI ZAMHARI)
Pengarah Audit Negeri,
Sarawak

AUDIT BERKUALITI MENINGKATKAN AKAUNTABILITI

Brief Summary (Translated from Bahasa Malaysia (National Language) into English language):

Development of Disclosure Index Instrument for Sarawak Local Authorities
Verification of the accrual index instrument by the NAD on the 10th October 2016

Recommendation for the adoption of accrual accounting in SLA for accurate disclosure of the financial position and to achieve transparency and accountability in the financial management aspects, but subject to the approval of the MLGH

Recommendation for a revision to the existing financial regulations (LAFR) to cater to the implementation of accrual system across the SLA

APPENDIX 5.2: ACKNOWLEDGEMENT LETTER OF THE DISCLOSURE INDEX INSTRUMENT BY CROWE HORWARTH

Crowe Horwath™

Crowe Horwath *AF 1018*
Chartered Accountants
Member Crowe Horwath International

Miri Office
1st Floor, Lot 2942,
Faradale Garden, Jalan Bulan Sabit,
P. O. Box 258, 98007 Miri,
Sarawak, Malaysia.
Main +6 085 412 829
Fax +6 085 413 255
www.crowehorwath.com.my

Tarikh : 13 May 2016

Mr. Hadysyam Junaidi

Sir,

DEVELOPMENT OF MINIMUM DISCLOSURE INDEX INSTRUMENT FOR SARAWAK LOCAL AUTHORITIES

We refer to the above said matter.

2. We are satisfied the basis for presentation and disclosure purpose of general purpose annual financial statements of Sarawak Local Authorities. The recognition, measurement and disclosure are compliance with the MASB Standards (MASB 1 – Presentation of Financial Statements), Private Entity Reporting Standars (PERS) which are replace by Malaysia Private Entity Reporting Standards (MPERS) beginning on or after 1st January 2016 and the requirements of the Company Act 1965 in Malaysia.

3. Thus, we do not have any additional comment on the above said matter.

Thank you.

Yours faithfully,
for ***Crowe Horwath***

SIM AIK CHIAM
Partner

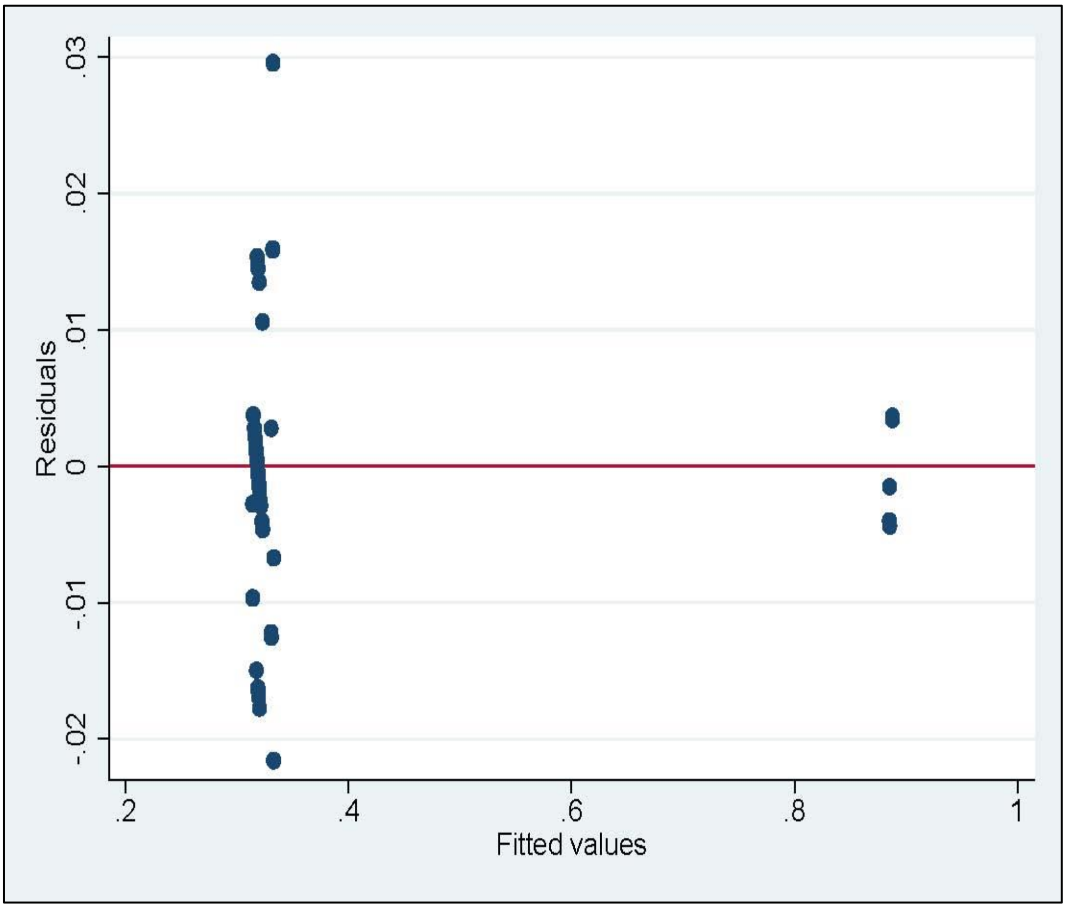
Offices in Malaysia:
Bintulu • Johor Bahru • Klang • Kota Kinabalu • Kuala Lumpur • Kuching • Labuan • Melaka • Miri • Muar • Penang • Sibu

APPENDIX 5.3: RESULTS OF THE PANEL REGRESSION MODEL

Independent Variables	Hypothesis/ Predict Sign	Dependent Variable: SLADI				
		Pooled OLS	FE (within)	RE (GLS)	RE (cluster-robust standard errors)	OLS (cluster-robust standard errors)
TI	H1 (+)	0.0539 (1.36*)	0.0016 (0.40)	0.0025 (0.70)	0.0025 (1.59*)	0.0054 (1.74**)
LSZ	H2 (+)	-0.0017 (-1.84**)	-0.0025 (-0.46)	-0.0016 (-0.98)	-0.0016 (-1.91**)	-0.0017 (-2.39***)
QP	H3 (+)	0.0175 (4.63***)	omitted	0.0177 (2.48***)	0.0177 (1.65**)	0.0175 (3.09***)
AI	H4 (+)	-0.0110 (-0.53)	-0.0000 (-0.02)	-0.0004 (-0.19)	-0.0004 (-0.48)	-0.0011 (-0.50)
RG	H5 (+)	0.5532 (133.66***)	omitted	0.5542 (71.26***)	0.5542 (52.84***)	0.5532 (96.91***)
Constant		0.3416 (26.64***)	0.3995 (5.06***)	0.3402 (14.99***)	0.3402 (29.52***)	0.3416 (34.87***)
Observations		104	104	104	104	104
R^2		0.9969	0.2147	0.9969	0.9969	0.9969

Beta denotes the standardised regression coefficient of the variable in the tested model.
t – Statistics are given in parenthesis: (   ).
Significance level: ***p<0.01; **p<0.05; *p<0.1 levels respectively (at one-tailed *p*-value).
One tailed probabilities are used for the tests of the variables since the associated hypotheses are directional.

APPENDIX 5.4: A PLOT OF THE RESIDUALS AGAINST THE FITTED VALUES



APPENDIX 5.5: PANEL ANALYSIS RESULTS (STATA)

Appendix 5.5.1: Univariate Analysis

```
. summarize sladi ti lsz qp ai rg, detail

                            sladi
-------------------------------------------------------------
      Percentiles      Smallest
 1%        .3023          .3023
 5%        .3043          .3023
10%        .3111          .3023       Obs                 104
25%        .3182          .3023       Sum of Wgt.         104

50%        .3182                      Mean           .3636192
                        Largest       Std. Dev.      .1519788
75%        .3182          .8913
90%        .3478          .8913       Variance       .0230976
95%         .881          .8913       Skewness       3.153982
99%        .8913          .8913       Kurtosis       11.00086

                             ti
-------------------------------------------------------------
      Percentiles      Smallest
 1%            0              0
 5%            0              0
10%            0              0       Obs                 104
25%            0              0       Sum of Wgt.         104

50%           .5                      Mean              .3125
                        Largest       Std. Dev.      .2803214
75%           .5              1
90%           .5              1       Variance       .0785801
95%           .5              1       Skewness       .1608922
99%            1              1       Kurtosis       2.181557

                             lsz
-------------------------------------------------------------
      Percentiles      Smallest
 1%     12.54557       12.52657
 5%     12.70524       12.54557
10%     13.06305       12.56877       Obs                 104
25%     13.55995       12.59392       Sum of Wgt.         104

50%     14.36739                      Mean           14.78238
                        Largest       Std. Dev.      1.616505
75%     15.65889       17.69384
90%     17.46744       17.71394       Variance       2.613089
95%     17.59978       17.74615       Skewness       .6823527
99%     17.74615       17.78012       Kurtosis       2.141252
```

qp

	Percentiles	Smallest		
1%	0	0		
5%	0	0		
10%	0	0	Obs	104
25%	0	0	Sum of Wgt.	104
50%	0		Mean	.1923077
		Largest	Std. Dev.	.396022
75%	0	1		
90%	1	1	Variance	.1568335
95%	1	1	Skewness	1.56144
99%	1	1	Kurtosis	3.438095

ai

	Percentiles	Smallest		
1%	0	0		
5%	0	0		
10%	0	0	Obs	104
25%	0	0	Sum of Wgt.	104
50%	0		Mean	.2307692
		Largest	Std. Dev.	.4233654
75%	0	1		
90%	1	1	Variance	.1792382
95%	1	1	Skewness	1.278019
99%	1	1	Kurtosis	2.633333

rg

	Percentiles	Smallest		
1%	0	0		
5%	0	0		
10%	0	0	Obs	104
25%	0	0	Sum of Wgt.	104
50%	0		Mean	.0769231
		Largest	Std. Dev.	.2677598
75%	0	1		
90%	0	1	Variance	.0716953
95%	1	1	Skewness	3.175426
99%	1	1	Kurtosis	11.08333

Appendix 5.5.2: Bivariate Analysis

```
. spearman sladi ti lsz qp ai rg, stats(rho p)
(obs=104)
```

Key
rho   *Sig. level*

	sladi	ti	lsz	qp	ai	rg
sladi	1.0000					
ti	0.2935	1.0000				
	0.0025					
lsz	0.2259	0.5892	1.0000			
	0.0211	0.0000				
qp	0.5215	0.4758	0.6176	1.0000		
	0.0000	0.0000	0.0000			
ai	-0.0687	-0.0278	0.1593	-0.0356	1.0000	
	0.4882	0.7792	0.1063	0.7195		
rg	0.5490	0.3821	0.3762	0.5916	-0.1581	1.0000
	0.0000	0.0001	0.0001	0.0000	0.1089	

Appendix 5.5.3: Multivariate Analysis

Model Specification Test

```
. ovtest
(note:  predicted sladi^3 dropped because of collinearity)

Ramsey RESET test using powers of the fitted values of sladi
       Ho:  model has no omitted variables
                  F(2, 96) =      0.82
                  Prob > F =      0.4446
```

```
. linktest
```

Source	SS	df	MS
Model	2.3716198	2	1.1858099
Residual	.007428083	101	.000073545
Total	2.37904788	103	.023097552

Number of obs	=	104
F(2, 101)	=	16123.51
Prob > F	=	0.0000
R-squared	=	0.9969
Adj R-squared	=	0.9968
Root MSE	=	.00858

sladi	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
_hat	.928666	.3926689	2.37	0.020	.1497166	1.707615
_hatsq	.0591502	.325569	0.18	0.856	-.5866911	.7049916
_cons	.0167688	.092323	0.18	0.856	-.1663752	.1999127

Regression Diagnostic Test

(i) F-test

```
. xtreg sladi ti lsz qp ai rg, fe
note: qp omitted because of collinearity
note: rg omitted because of collinearity

Fixed-effects (within) regression               Number of obs      =       104
Group variable: code                            Number of groups   =        26

R-sq:                                           Obs per group:
     within  = 0.0046                                         min =          4
     between = 0.2160                                         avg =        4.0
     overall = 0.2147                                         max =          4

                                                F(3,75)            =      0.11
corr(u_i, Xb)  = -0.4824                        Prob > F           =    0.9511

------------------------------------------------------------------------------
       sladi |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          ti |   .0016263   .0040443     0.40   0.689    -.0064303    .0096828
         lsz |  -.0024635   .0053535    -0.46   0.647    -.0131282    .0082012
          qp |          0  (omitted)
          ai |  -.0000419     .00207    -0.02   0.984    -.0041657    .0040818
          rg |          0  (omitted)
       _cons |   .3995368   .0790082     5.06   0.000     .2421444    .5569292
-------------+----------------------------------------------------------------
     sigma_u |  .15597934
     sigma_e |  .00456709
         rho |  .99914341   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0: F(25, 75) = 3144.40                   Prob > F = 0.0000
```

(ii) Normality of Residuals

```
. predict r
(option xb assumed; fitted values)

. swilk r

                   Shapiro-Wilk W test for normal data

    Variable |        Obs       W           V         z       Prob>z
-------------+------------------------------------------------------
           r |        104    0.31664     58.301     9.038    0.00000
```

* A cluster-robust regression was carried out to reduce the outlier's effect on the regression.

(iii) Multicollinearity Test

```
. vif

    Variable |       VIF       1/VIF
-------------+----------------------
         lsz |      3.08    0.324522
          qp |      3.04    0.329054
          ti |      1.67    0.597446
          rg |      1.67    0.599276
          ai |      1.05    0.950497
-------------+----------------------
    Mean VIF |      2.10
```

(iv) Heteroscedasticity

```
. quietly reg sladi ti lsz qp ai rg

. estat imtest, white

White's test for Ho: homoskedasticity
         against Ha: unrestricted heteroskedasticity

         chi2(13)     =     53.02
         Prob > chi2  =    0.0000

Cameron & Trivedi's decomposition of IM-test

---------------------------------------------------
              Source |       chi2     df      p
---------------------+-----------------------------
  Heteroskedasticity |      53.02     13    0.0000
            Skewness |      13.40      5    0.0199
            Kurtosis |       4.97      1    0.0257
---------------------+-----------------------------
               Total |      71.40     19    0.0000
---------------------------------------------------

. estat hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of sladi

         chi2(1)      =     2.08
         Prob > chi2  =   0.1488
```

* There is no evidence of heteroscedasticity found in Breusch-Pagan/Cook-Weisberg test. Based on the results of White's test and the graphical method (refer Appendix 5.4), however, there is a heteroscedasticity in the model and rectification is required through a cluster-robust regression.

(v) Serial Correlation

```
. xtserial sladi ti lsz qp ai rg

Wooldridge test for autocorrelation in panel data
H0: no first-order autocorrelation
    F(  1,      25) =      4.884
           Prob > F =      0.0365
```

* A cluster- robust regression was carried out to reduce the serial correlation problem.

Pooled OLS versus Random Effect:

```
. reg sladi ti lsz qp ai rg

      Source |       SS           df       MS      Number of obs   =       104
-------------+----------------------------------   F(5, 98)        =   6255.79
       Model |  2.37161737         5  .474323474   Prob > F        =    0.0000
    Residual |  .00743051         98  .000075822   R-squared       =    0.9969
-------------+----------------------------------   Adj R-squared   =    0.9967
       Total |  2.37904788       103  .023097552   Root MSE        =    .00871

------------------------------------------------------------------------------
       sladi |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          ti |    .005393   .0039598     1.36   0.176    -.0024651    .0132511
         lsz |  -.0017162   .0009317    -1.84   0.069    -.0035651    .0001328
          qp |   .0174889   .0037768     4.63   0.000     .0099939    .0249838
          ai |  -.0011045   .0020787    -0.53   0.596    -.0052296    .0030206
          rg |    .553239   .0041392   133.66   0.000     .5450248    .5614532
       _cons |   .3416379   .0128237    26.64   0.000     .3161897    .3670861
------------------------------------------------------------------------------

. xtreg sladi ti lsz qp ai rg, re

Random-effects GLS regression                   Number of obs     =        104
Group variable: code                            Number of groups  =         26

R-sq:                                           Obs per group:
     within  = 0.0036                                         min =          4
     between = 0.9975                                         avg =        4.0
     overall = 0.9969                                         max =          4

                                                Wald chi2(5)      =    8349.76
corr(u_i, X)   = 0 (assumed)                    Prob > chi2       =     0.0000

------------------------------------------------------------------------------
       sladi |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          ti |   .0025316   .0036315     0.70   0.486     -.004586    .0096493
         lsz |  -.0015779   .0016097    -0.98   0.327    -.0047329     .001577
          qp |   .0177179   .0071523     2.48   0.013     .0036997    .0317361
          ai |  -.0003529   .0018668    -0.19   0.850    -.0040118     .003306
          rg |   .5541853    .007777    71.26   0.000     .5389427    .5694279
       _cons |   .3401984   .0226951    14.99   0.000     .2957168    .3846801
-------------+----------------------------------------------------------------
     sigma_u |  .00823145
     sigma_e |  .00456709
         rho |  .76461877   (fraction of variance due to u_i)
------------------------------------------------------------------------------
```

```
. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

        sladi[code,t] = Xb + u[code] + e[code,t]

        Estimated results:
                         |       Var     sd = sqrt(Var)
                ---------+-----------------------------
                   sladi |   .0230976       .1519788
                       e |   .0000209       .0045671
                       u |   .0000678       .0082314

        Test:   Var(u) = 0
                             chibar2(01) =    79.83
                          Prob > chibar2 =   0.0000
```

* The p-value < 0.05, thus reject H_0. Decision: Random Effect Model.

Random versus Fixed Effects Model

```
. xtreg sladi ti lsz qp ai rg, fe
note: qp omitted because of collinearity
note: rg omitted because of collinearity

Fixed-effects (within) regression               Number of obs     =        104
Group variable: code                            Number of groups  =         26

R-sq:                                           Obs per group:
     within  = 0.0046                                         min =          4
     between = 0.2160                                         avg =        4.0
     overall = 0.2147                                         max =          4

                                                F(3,75)           =       0.11
corr(u_i, Xb)  = -0.4824                        Prob > F          =     0.9511

------------------------------------------------------------------------------
       sladi |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          ti |   .0016263   .0040443     0.40   0.689    -.0064303    .0096828
         lsz |  -.0024635   .0053535    -0.46   0.647    -.0131282    .0082012
          qp |          0  (omitted)
          ai |  -.0000419     .00207    -0.02   0.984    -.0041657    .0040818
          rg |          0  (omitted)
       _cons |   .3995368   .0790082     5.06   0.000     .2421444    .5569292
-------------+----------------------------------------------------------------
     sigma_u |  .15597934
     sigma_e |  .00456709
         rho |  .99914341   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0: F(25, 75) = 3144.40                   Prob > F = 0.0000

. est store fixed
```

```
. xtreg sladi ti lsz qp ai rg, re

Random-effects GLS regression                   Number of obs      =       104
Group variable: code                            Number of groups   =        26

R-sq:                                           Obs per group:
     within  = 0.0036                                          min =         4
     between = 0.9975                                          avg =       4.0
     overall = 0.9969                                          max =         4

                                                Wald chi2(5)       =   8349.76
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.0000

------------------------------------------------------------------------------
       sladi |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          ti |   .0025316   .0036315     0.70   0.486     -.004586    .0096493
         lsz |  -.0015779   .0016097    -0.98   0.327    -.0047329     .001577
          qp |   .0177179   .0071523     2.48   0.013     .0036997    .0317361
          ai |  -.0003529   .0018668    -0.19   0.850    -.0040118     .003306
          rg |   .5541853    .007777    71.26   0.000     .5389427    .5694279
       _cons |   .3401984   .0226951    14.99   0.000     .2957168    .3846801
-------------+----------------------------------------------------------------
     sigma_u |  .00823145
     sigma_e |  .00456709
         rho |  .76461877   (fraction of variance due to u_i)
------------------------------------------------------------------------------

. est store random

. hausman fixed

                 ---- Coefficients ----
             |      (b)          (B)            (b-B)     sqrt(diag(V_b-V_B))
             |     fixed        random       Difference          S.E.
-------------+----------------------------------------------------------------
          ti |    .0016263     .0025316       -.0009054        .0017799
         lsz |   -.0024635    -.0015779       -.0008855        .0051057
          ai |   -.0000419    -.0003529         .000311        .0008944
------------------------------------------------------------------------------
                           b = consistent under Ho and Ha; obtained from xtreg
            B = inconsistent under Ha, efficient under Ho; obtained from xtreg

    Test:  Ho:  difference in coefficients not systematic

                  chi2(3) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                          =        0.33
                Prob>chi2 =      0.9541
```

* The p-value > 0.05, thus do not reject H_0. Decision: Random Effect Model.

GLS with Cluster-Robust Standard Error Regression:

```
. xtreg sladi ti lsz qp ai rg, re vce(robust)

Random-effects GLS regression                   Number of obs     =        104
Group variable: code                            Number of groups  =         26

R-sq:                                           Obs per group:
     within  = 0.0036                                         min =          4
     between = 0.9975                                         avg =        4.0
     overall = 0.9969                                         max =          4

                                                Wald chi2(5)      =   30296.47
corr(u_i, X)   = 0 (assumed)                    Prob > chi2       =     0.0000

                                  (Std. Err. adjusted for 26 clusters in code)
------------------------------------------------------------------------------
             |               Robust
       sladi |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          ti |   .0025316   .0015962     1.59   0.113    -.0005968    .0056601
         lsz |  -.0015779   .0008265    -1.91   0.056    -.0031979     .000042
          qp |   .0177179   .0107077     1.65   0.098    -.0032688    .0387046
          ai |  -.0003529    .000735    -0.48   0.631    -.0017935    .0010877
          rg |   .5541853    .010489    52.84   0.000     .5336273    .5747433
       _cons |   .3401984   .0115242    29.52   0.000     .3176114    .3627855
-------------+----------------------------------------------------------------
     sigma_u |  .00823145
     sigma_e |  .00456709
         rho |  .76461877   (fraction of variance due to u_i)
------------------------------------------------------------------------------
```

* The study employ cluster-robust option to overcome the issues that was encountered in the diagnostic test, thus rectifying the model accordingly.
**p-value is indicated at 2-tailed.

OLS with Cluster-Robust Standard Error Regression:

```
. reg sladi ti lsz qp ai rg, vce(robust)

Linear regression                               Number of obs     =        104
                                                F(5, 98)          =   30155.14
                                                Prob > F          =     0.0000
                                                R-squared         =     0.9969
                                                Root MSE          =     .00871
```

sladi	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
ti	.005393	.0030915	1.74	0.084	-.0007421	.0115281
lsz	-.0017162	.0007192	-2.39	0.019	-.0031435	-.0002889
qp	.0174889	.0056593	3.09	0.003	.0062582	.0287195
ai	-.0011045	.0022245	-0.50	0.621	-.005519	.00331
rg	.553239	.0057088	96.91	0.000	.54191	.564568
_cons	.3416379	.0097978	34.87	0.000	.3221944	.3610814

* Two-tailed p-value.

** Comparatively, many prior disclosure studies (e.g. Ahmed and Nicholls 1994; Depoers 2000; Akhtaruddin et al. 2009) deploy multivariate OLS to measure the association between the extent of disclosure level and specific independent variables. The results from the multivariate OLS longitudinal panel data model with cluster-robust standard error revealed that three variables namely technology infrastructure, qualification of accountancy personnel, and regulations have a positive association with the extent of accounting disclosure (based on one-tailed p-value, refer Appendix 5.3). Both the OLS and GLS with cluster-robust standard error regression yield the same output that the results of three variables support the study hypotheses, although the coefficient value and significant level slightly differ.

Measurement of the Goodness of Fits (R^2) with Different Level of Variables:

```
. xtreg sladi ti, re vce(robust)

Random-effects GLS regression                   Number of obs      =       104
Group variable: code                            Number of groups   =        26

R-sq:                                           Obs per group:
     within  = 0.0017                                         min =          4
     between = 0.2558                                         avg =        4.0
     overall = 0.2146                                         max =          4

                                                Wald chi2(1)       =      1.74
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.1869

                                   (Std. Err. adjusted for 26 clusters in code)
------------------------------------------------------------------------------
             |               Robust
       sladi |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          ti |   .0018631   .0014115     1.32   0.187    -.0009035    .0046296
       _cons |    .363037   .0302468    12.00   0.000     .3037544    .4223196
-------------+----------------------------------------------------------------
     sigma_u |  .13573969
     sigma_e |  .00451383
         rho |  .99889542   (fraction of variance due to u_i)
------------------------------------------------------------------------------
```

* 1st regression level with one regressor (ti) produces a value of $R^2 = 0.2146$.

```
. xtreg sladi ti lsz, re vce(robust)

Random-effects GLS regression                   Number of obs      =       104
Group variable: code                            Number of groups   =        26

R-sq:                                           Obs per group:
     within  = 0.0000                                         min =          4
     between = 0.2588                                         avg =        4.0
     overall = 0.2571                                         max =          4

                                                Wald chi2(2)       =      1.74
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.4194

                                  (Std. Err. adjusted for 26 clusters in code)
------------------------------------------------------------------------------
             |               Robust
       sladi |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          ti |   .0017173   .0013971     1.23   0.219     -.001021    .0044556
         lsz |   .0020267   .0042475     0.48   0.633    -.0062983    .0103517
       _cons |   .3331231   .0492902     6.76   0.000     .2365161    .4297301
-------------+----------------------------------------------------------------
     sigma_u |   .1346572
     sigma_e |  .00453696
         rho |  .99886609   (fraction of variance due to u_i)
------------------------------------------------------------------------------
```

* 2nd regression level with two regressors (ti & lsz) produce a value of $R^2 = 0.2571$.

```
. xtreg sladi ti lsz qp, re vce(robust)

Random-effects GLS regression                   Number of obs      =       104
Group variable: code                            Number of groups   =        26

R-sq:                                           Obs per group:
     within  = 0.0045                                         min =          4
     between = 0.3765                                         avg =        4.0
     overall = 0.3762                                         max =          4

                                                Wald chi2(3)       =      7.00
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.0719

                                  (Std. Err. adjusted for 26 clusters in code)
------------------------------------------------------------------------------
             |               Robust
       sladi |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          ti |   .0017756   .0013767     1.29   0.197    -.0009227    .0044739
         lsz |  -.0022832   .0032526    -0.70   0.483    -.0086582    .0040919
          qp |   .2419173   .1227787     1.97   0.049     .0012754    .4825592
       _cons |   .3502927   .0462159     7.58   0.000     .2597113    .4408742
-------------+----------------------------------------------------------------
     sigma_u |  .12475591
     sigma_e |  .00453696
         rho |  .99867921   (fraction of variance due to u_i)
------------------------------------------------------------------------------
```

* 3rd regression level with three regressors (ti, lsz & qp) produce a value of $R^2 = 0.3762$.

```
. xtreg sladi ti lsz qp ai, re vce(robust)

Random-effects GLS regression                   Number of obs     =        104
Group variable: code                            Number of groups  =         26

R-sq:                                           Obs per group:
     within  = 0.0045                                         min =          4
     between = 0.3766                                         avg =        4.0
     overall = 0.3764                                         max =          4

                                                Wald chi2(4)      =       7.48
corr(u_i, X)   = 0 (assumed)                    Prob > chi2       =     0.1126

                                  (Std. Err. adjusted for 26 clusters in code)
------------------------------------------------------------------------------
             |               Robust
       sladi |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          ti |   .0018083   .0014066     1.29   0.199    -.0009485    .0045652
         lsz |   -.002262   .0032902    -0.69   0.492    -.0087107    .0041868
          qp |   .2418335   .1233595     1.96   0.050     .0000533    .4836137
          ai |  -.0001216   .0002014    -0.60   0.546    -.0005163    .0002732
       _cons |   .3500128   .0467344     7.49   0.000     .2584151    .4416105
-------------+----------------------------------------------------------------
     sigma_u |  .12574152
     sigma_e |  .00456709
         rho |   .9986825   (fraction of variance due to u_i)
------------------------------------------------------------------------------
```

* 4th regression level with four regressors (ti, lsz, qp & ai) produce a value of R^2 = 0.3764.

```
. xtreg sladi ti lsz qp ai rg, re vce(robust)

Random-effects GLS regression                   Number of obs     =        104
Group variable: code                            Number of groups  =         26

R-sq:                                           Obs per group:
     within  = 0.0036                                         min =          4
     between = 0.9975                                         avg =        4.0
     overall = 0.9969                                         max =          4

                                                Wald chi2(5)      =   30296.47
corr(u_i, X)   = 0 (assumed)                    Prob > chi2       =     0.0000

                                  (Std. Err. adjusted for 26 clusters in code)
------------------------------------------------------------------------------
             |               Robust
       sladi |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          ti |   .0025316   .0015962     1.59   0.113    -.0005968    .0056601
         lsz |  -.0015779   .0008265    -1.91   0.056    -.0031979     .000042
          qp |   .0177179   .0107077     1.65   0.098    -.0032688    .0387046
          ai |  -.0003529    .000735    -0.48   0.631    -.0017935    .0010877
          rg |   .5541853    .010489    52.84   0.000     .5336273    .5747433
       _cons |   .3401984   .0115242    29.52   0.000     .3176114    .3627855
-------------+----------------------------------------------------------------
     sigma_u |  .00823145
     sigma_e |  .00456709
         rho |  .76461877   (fraction of variance due to u_i)
------------------------------------------------------------------------------
```

* 5th regression level with five regressors (ti, lsz, qp, ai & rg) produce a value of R^2 = 0.9969.