



## Perceptions of Malaysian Local Government Managers on Accountability Typology

Rohana Othman

Faculty of Accountancy, Universiti Teknologi MARA  
40200 Shah Alam, Selangor, Malaysia

Tel: 60-3-5544-2813 E-mail: rohana799@salam.uitm.edu.my

Dennis Taylor

School of Accounting & Law, RMIT University  
Level 15, 239 Bourke St, Melbourne 3000, Australia  
Tel: 61-3-9925-5700 E-mail: dennis.taylor@rmit.edu.au

Maliah Sulaiman

Department of Accounting, International Islamic Universiti, Gombak, Malaysia  
Tel: 60-3-6196-4698 E-mail: maliah@iiu.edu.my

Kamaruzaman Jusoff (Corresponding author)

Yale University, Center for Earth Observation, Environmental Science Center  
21 Sachem St, New Haven, CT 06511, USA  
Tel: 1-203-432-1384 E-mail: jusoff.kamaruzaman@yale.edu

### Abstract

Accountability is a concept that has been difficult to clearly identify or measure. There is disagreement over definitions of accountability and a lack of empirical evidence about ways the concept might be dimensionalized, although there is agreement that it is multi-dimensional in nature. The aim of this study is to provide evidence of the existence of common types of accountability that are considered by departmental managers in local governments in Malaysia to be rendered by their particular departments. Drawing from a range of writings that have propounded different dimensions for the accountability construct, this study develops an instrument and administers it to departmental heads and their immediate subordinate manager in local government authorities throughout Malaysia. A three-cluster solution resulted from the data analysis, indicating an accountability typology that reduces to the three dimensions managerial/public accountability, fiduciary/compliance accountability and political accountability.

**Keywords:** Accountability, Local government, Typology, Public sector organizations

### 1. Introduction

Accountability is a term used in business, political, and social contexts, and is viewed as an important concept for social and organizational systems (Cunningham & Harris, 2001; Thynne & Goldring, 1987). Traditionally, accountability means the giving or rendering of an account – i.e., a statement explaining one's conduct or actions (Roberts and Scapens 1985; Parker & Gould 1999). Jackson (1982 p.220) defines accountability as:

*A process that involves explaining or justifying what has been done, what is currently being done and what is planned. Thus, one party is accountable to another in the sense that one of the parties has a right to call upon the other to give an account of his (or her) activities.*

Organizational research has included accountability as a variable of social influence with increasing frequency. The basic concept in these studies is that accountability is the perceived potential of being evaluated by someone, and being answerable for decisions or actions (Frink and Ferris, 1998). In the public administration literature, the claim is made that "accountability is the cornerstone of the Westminster system of government" (Fountain, 1991, p191). In the

accounting literature, the rendering of accountability is treated as a central objective of external reporting by public sector entities (ICAA/CPPA, 2004). Although the rendering of accountability by public sector entities is deemed to have fundamental importance, and is the function that management is charged to achieve in public sector organizations (Roberts 1991; Munro and Hatherly 1993; Fowles 1993; Cochrane 1993), it is confounded by the fact that the concept of accountability is multi-faceted and remains elusive. In defining the concept of accountability, differing vagaries abound depending on the prevalent commercial, social, political and cultural norms (Giddens 1979; Roberts 1991; Sinclair, 1995; Sirajuddin and Aslam 1995). Past definitions have been subjectively constructed and changed with particular contexts (Sinclair, 1995). Accountability, too, tends to assume various forms as an end result of governance initiatives in the public sector directed toward some form of uniformity. Based on these observations, Sinclair (1995, p.221) noted that the concept of accountability remains elusive; *'the more definitive we attempt to render the concept, the more murky it becomes.'* A strong case can be made for the importance of accountability in local government authorities (LAs). LAs have direct working relationships with external accountees in their community. Thus, ratepayers, local consumers and municipal electors – as direct resource providers, service users and voters – can claim a right to information that facilitates their making of informed judgments about the plans and actions of their local government. Not only are LAs at the forefront of dealing with local communities, they are also answerable to a hierarchy of regulators, policy-makers, and other oversight bodies within State and Federal levels of government.

The objective of this study is to identify the primary dimensions of the concept of accountability and measure these dimensions in terms of the way local government authorities (LAs) render accountability to their multiple stakeholders, as perceived by departmental managers. This study provides results from a survey that seek to establish whether an exclusive set of dimensions of accountability exists as a typology, which can classify the dominant accountability orientations of functional departments of LAs.

## 2. Methodology

While a review of the literature has led to the contention that a typology of four primary types or dimensions of accountability exists in public sector organizations, evidence needs to be presented about whether in fact such a typology exists. A limitation of gathering evidence about the nature of an existing accountability typology is that it could differ in different contexts. Types of accountability may well be sensitive to different cultural and institutional settings. In this study, the evidence to be presented is limited to the context of sub-units of local authorities (LAs) in Malaysia. In this setting, the hypothesis to be tested is that:

H1 There exists a set of distinct types of accountability as perceived by departmental heads and associated supervisory managers of LA's in Malaysia.

An instrument on dimensions of accountability was administered to Heads of Department or their senior supervisory managers in Malaysian LA departments. Measures of elements of the accountability construct in the questionnaire were based on 15 items, each with a 5-point scale from 1 (strongly disagree) to 5 (strongly agree). These items were worded to obtain respondents' perceptions of the extent to which aspects of accountability are being rendered by their department. The items were adapted from Stewart (1984), Sinclair (1995), Taylor & Pincus (1999), Taylor & Rosair (2000) and Kloot & Martin (2001). A mailing list of 97 LAs in peninsula Malaysia was obtained from the Ministry of Housing and Local Government. There are 4 City Councils, 28 Municipal Councils and 65 District Councils. The departments targeted within each LA were those that provide direct services to the public. They cover the functions of health, urban services, building, engineering, licensing and enforcement.

The rationale for selecting departmental heads and senior managers of departments that provide direct services to the public is as follows: (a) They are responsible for the delivery of identifiable services to the local community and therefore, face public exposure, (b) They are responsible for the implementation of public programs and projects that have been conceived and directed from political wings of government, (c) They function in a work environment in Malaysia where the emphasis has recently been changing from a traditional bureaucratic style of management towards managerialism and 'new public management' reforms that have been influenced by the reform undertaken in Western countries in the 1980s and 1990s, and (d) There is a growing public expectation that departmental heads must be highly competent and take a morally responsible role. This expectation has been driven by local media attention to cases of LA mal-practices in Malaysia.

A total of 665 target respondents comprising 380 heads of departments and 285 supervisory managers from 97 LAs were sampled. The questionnaires were personally addressed to the targeted individuals, names having been obtained from the websites of the LAs. Useable responses were received from 165 (54%) departmental heads and 143 (46%) supervisory managers. The overall response rate was a respectable 47% (i.e., 308 of 665). The management level of the respondents when compared across type of LA is presented in Table 1. Table 2 shows the breakdown of the responses from each functional department heads & senior officers. Table 1 indicates that 71% of the departmental heads from District Councils participated in this survey. By comparison, 36% and 46% of departmental heads from the Municipal Council and City Council, respectively, participated.

The departments selected within each local authority would be the departments that provide direct services to the public such as the Health Department, Urban Services Department, Licensing and Enforcement Department, Engineering Department and Building Department. However, the names and functions of the departments in each local authority are not uniformed. It differs from one local authority to another. For example, one local authority may have the Health Department to do the function of maintaining cleanliness in the locality (such as to ensure rubbish is collected daily) and disease control. However, in some other local authorities it is known as Licensing, Urban Services and Beautification Department. Besides maintaining cleanliness of the locality and disease control, this department also does planning, developing and controlling urban services, landscape beautification as well as issuing of business license. Specifically in the district councils, one department is responsible for numerous functions. Table 3 shows the departments in LAs with their respective functions.

### *2.1 Validity and reliability tests*

The 15-item measure of dimensions of accountability is tested for validity using principal components factor analysis. The result of the KMO test shows that the 15 scales of the accountability construct give a value of .912. According to the Kaiser (1974) scale, this result indicates a meritorious adequacy and thus is appropriate for use in further factor analysis. The factor analysis with varimax rotation of the 15 accountability scales yields 3 factors, as shown in Table 4. Each factor has an eigenvalue greater than 1.0 and together the three factors account for 56% of the total item variance. Table 4 reveals that scales pertaining to managerial accountability (items 1 to 5) and public accountability (items 6 to 8) loaded onto one factor. This result indicates that elements of informativeness and responsiveness to the public integrate with elements of managerial efficiency, effectiveness and quality of service provision in the conceptualization of a single dimension of accountability – labeled managerial/public accountability (MGLPUB). The second factor contains scales relating to compliance with rules and regulations and fiduciary correctness in use of funds. It is labeled fiduciary/compliance accountability (FIDCOMP). The third factor contains scales that emphasize the need to communicate with, and satisfy, political representatives as well as demands from other tiers of government. It is labeled political accountability (POLITIC).

In relation to internal reliability analysis, Table 4 gives Cronbach's Alpha coefficients for factors 1 and 2 that are above 0.8, suggesting strong reliability in the measure. However, factor 3 has an Alpha of only .5435, which is below the desired benchmark of 0.6. Hence, the measure of POLITIC is subject to improvement in any future replication of this study.

## **3. Results and discussion**

It has been hypothesized that there exists a set of distinct types of accountability, as evidenced by the perceptions of departmental heads and supervisory managers about practices and policies in their Malaysian LA departments. Since an accountability typology has not been empirically established in prior literature, this study goes beyond factor analysis in analyzing the distinct dimensions of an accountability typology. A two-step approach is taken. The first step of requiring data reduction by using factor analysis was presented in the previous section, and resulted in three accountability dimensions. The second step involves the partitioning of data into homogeneous groups of respondents using cluster analysis. Cluster analysis can answer the research question of whether the respondents can be classified into two or more readily identifiable groups (or clusters) that are mutually exclusive and have high homogeneity within groups and high external heterogeneity between groups. This analysis has the effect of grouping respondents according to their perception of their department's most dominant type of accountability orientation.

In factor analysis a respondent can be described as having varying degrees of each of the dimensions of the variable. By comparison, in cluster analysis as soon as a respondent becomes a member of one cluster, that respondent cannot be in any other cluster (Kamen, 1970). After a case (or respondent) has joined a cluster, it cannot be removed from that cluster. There are a number of general assumptions in cluster analysis. Cluster analysis is an interdependence technique, which means the variables are not classified as independent or dependent variables. Existence of mutually exclusive groups in the population as well as the sample is assumed. Multicollinearity is assumed to be absent. When variables are highly correlated it means they represent the same concept, therefore, correlation between variables would have an effect on the final cluster solutions. By first reducing variables used in the cluster analysis through factor analysis, multicollinearity should be reduced. Normality, linearity and homoscedasticity, which are important in other statistical techniques, have a minor influence on cluster analysis (Hair et al 1998). Clustering algorithms or techniques used to place similar objects into groups or to form clusters can be chosen from hierarchical or non-hierarchical algorithms. A hierarchical agglomerative clustering approach was chosen as the clustering algorithm because this method produces non-overlapping clusters (Aldenderfer & Blashfield, 1984). This method starts from the point at which each case is considered to be a cluster by itself. Then progressively, the two closest clusters are combined into a new aggregate cluster, reducing the number of cluster by one at each step. Ward's agglomerative method was used to determine the optimal number of clusters. According to Milligan (1996), Ward's method is a good clustering strategy because it is not affected by the presence of outliers. Nevertheless, decisions on the exact number of

clusters in a cluster analysis solution cause problems with exploratory data analysis (Schweizer, 1992). The graphical examination of a dendrogram and the consideration of agglomeration coefficients are among the methods used to determine the appropriate number of clusters in a cluster solution for a data set. The agglomeration coefficient can be used as a stopping rule. Small coefficients indicate joining of fairly homogeneous clusters. Large coefficients mean two very different clusters are being combined. The stopping rule looks for large increases in the coefficient change (Krolak-Schwerdt & Eckes (1992).

The result for agglomeration coefficients that identify possible clusters or groups is given in Table 5. This table produces ten clusters. The agglomeration coefficient shows large increases when progressing from one to two clusters (230.1), from two to three clusters (151.8) and from three to four clusters (86.1). After the fourth cluster, the increments are relatively small. Hence, a three-cluster solution is selected because each of the first three clusters produces a substantial increment in the agglomerative coefficient, as reflected in the 'change in coefficient' column. The graph in Figure 1 plots the number of clusters against the agglomeration coefficients. The graph shows that the curve flattens at the point where the solution moves from three to four clusters and the line becomes flatter thereafter. To examine the characteristics of respondents in each cluster, group centroids (mean values) for each of the 15 items contained in the three-cluster solution are calculated. F-tests are also computed to indicate whether statistical differences exist across clusters for each individual item. The individual items can be viewed as 15 separate traits that relate to the three accountability dimensions. The results are presented in Table 6.

Table 6 shows the three clusters to be significantly different in the case of 14 of the 15 items or accountability traits. One item, which is a 'policy' trait of the political accountability dimension (POLITIC), did not fall into significantly different clusters. The centroid results in Table 6 provide revelations about the characteristics of respondents in the three separate accountability clusters. First, respondents in cluster one are characterized, on highest mean scores, in terms of perceiving their department to have the traits of presenting and answering for departmental and managerial performance, programs and their management, quality assurance systems, and the effectiveness of delivery of services to the public. Such traits suggest that LA departments in cluster one place emphasis on the importance of implementing programs and delivering services in their localities effectively and efficiently for the benefit of the constituent public. Therefore, the LA departments in this group can be deemed to adopt a combined managerial and public accountability approach. This cluster is a merging of the managerial and public accountability dimensions identified separately by Stewart (1984), Sinclair (1995), Day and Klein (1987), Normanton (1966) and Johnson (1974). The finding indicates that managerial/public accountability is a dimension of accountability that integrates into a single concept. Cluster one is the largest of the clusters, accounting for 45% (139) of the respondents. Second, as shown in Table 6, cluster 2 comprises of respondents with the highest mean rating for legality, process and probity. This result infers that a group of LA departments emphasize adherence to rules and regulations, maintenance of formal records and approved processes and probity in the use of resources. Respondents in cluster 2 are characterized as perceiving their department to have the traits of following Treasury's rules and regulations, keeping detailed records in accordance with regulations, and being answerable for the use of funds in a manner that have been authorized. These traits reflect a dimension called fiduciary/compliance accountability. Fiduciary accountability is identified by Taylor & Rosair (2000), and compliance accountability by Robinson (1971), Leat (1988), Stewart (1984), as including compliance with regulations and fiscal integrity. Cluster two accounts for 38.6% (119) of the sample of LA departments and is the second largest cluster. Third, Table 6 shows cluster three as the cluster with the highest mean rating in policy and political traits. This result suggests that the respondents in cluster three believe their LA departments, through managers and administrators within their LA, are primarily accountable to both elected representatives and significant policymaker/regulator-bureaucrats in local, state and federal levels of government. The traits that are prominent are those of satisfying requirements of relevant oversight bodies at state and federal levels, presenting performance information to councilors, and reporting significant matters to their state's Chief Minister. Attention is given to the 'political chain of accountability' in which sub-unit managers are accountable to bureaucrats and elected representatives further up the political hierarchy of government and, in turn, these political representatives and leaders are accountable to the public. The political dimension of accountability is identified by Johnson (1974) and Sinclair (1995). In this study, the 'political accountability' cluster accounts for 16% (50) of the respondents.

Overall, this 3-cluster solution has satisfied the hypothesis that a set of distinct types of accountability exists in Malaysian local government departments. The evidence shows an accountability typology of only three distinct dimensions – managerial/public, fiduciary/compliance and political accountability.

#### 4. Conclusions

Accountability has been made an integral part of public sector organizations. Yet, prior literature has provided various overlapping and subjectively constructed perspectives on the nature of accountability. Empirical research studies on the nature and measurement of dimensions of accountability in different settings have been few. This study has consolidated prior proposed and qualitatively assessed types of accountability and has refined the prior empirical findings from Sinclair (1995), Taylor & Rosair (2000) and Kloot & Martin (2001). It provides results that reveal the

existence of a common typology for sub-units of LAs that classifies them into one of three exclusive accountability dimensions.

First, the results provide strong evidence that managerial and public accountability are correlated and are classified together as managerial/public accountability. This dimension infers that managers will have concern for the extent to which their department develops clear operating goals and performance measures with emphasis on efficiency and effectiveness, as well as providing responsive and high quality services to the public. About 45% (139) of the respondents perceived this dimension to be the dominant type of accountability rendered by their Malaysian LA department. Such an accountability emphasis is consistent with the finding of Kloot & Martin (2001) in their study on perceptions of accountability of managers to multiple stakeholders in Australian local governments. Second, the fiduciary/compliance accountability dimension derived in this study has similar characteristics and corresponds with Taylor & Rosair's (2000) findings relating to State and Federal government departments in Australia. Evidence is provided of a high degree of correspondence between fiscal probity (utilization of funds in an appropriate manner), legality (within the powers and authorities granted) and compliance (with applicable rules and regulations). About 38.6% (119) of managers reported the dominance of the fiduciary/compliance dimension in the rendering of accountability by their LA department. The third result of this study was the presence of an emphasis on political accountability in 16% of LA departments. This dimension is consistent with Kloot & Martin's (2001) finding that managers of local government in Australia demonstrate relatively high accountability to the state government. The finding suggests that some LA departmental managers will have a dominant emphasis on being accountable through both formal and informal reporting channels to councilors, ministers and other hierarchies of government concerning their department's implementation of policies and achievement of government objectives. As suggested in Sinclair's (1995) findings, public sector managers can perceive that the governing of their local government affairs is very much influenced by councilors and state and federal government ministers.

While the evidence in this study is specific to LAs in Malaysia, it points to the probable existence of this accountability typology, or a similar one, throughout the wider public sector. Hence, this typology has practical implications in terms of providing a better understanding, and a foundation for further refining, managerial and governance frameworks in public sector organizations. The results, nevertheless, are subject to limitations. The scope of the empirical evidence is limited to what departmental-level managers think is the dominant aspect of accountability being rendered by their particular department, not what politicians, senior bureaucrats or the relevant public think. The data has been collected from a field survey through newly developed scales in the survey instrument that have not been tested in prior studies. These scales elicit perceptions of the respondents, so the data is relatively 'soft' because it is largely perceptions of respondents. Like prior studies, this present study assesses the LAs departmental heads and senior officers' perceptions of their own accountability. The use of perceptual measures or subjective self-rated performance measures may be a limiting factor. Since the accountability instrument has been designed as self-assessment, it is possible that respondents may have biased their responses. Response bias can be problematic when the respondents seek to provide desirable answers or inflate their self-rating – i.e., a 'halo' effect may result. As such, possible bias associated with self-assessment by heads of departments must be considered when interpreting the results of this study. Managers' perception of their own performance might not have accurately captured their actual performance. However, prior research has shown that subjective self-ratings of performance are highly correlated with objective measures and/or superior ratings of performance (Heneman, 1974; Furnham and Stringfield, 1994; Bommer et al., 1995). Although financial measures of accountability (see Taylor and Rosair, 2000) are more desirable, perceptual measures (see Kloot and Martin, 2001) have also been used in research.

Further this is a cross-sectional study that is inherently affected by wider conditions existing at that time (e.g., pre- or post-introduction of new legislation or new minister). Further research on the determination of an accountability typology is required in different settings and using different research methods and different groups of respondents.

## References

- Aldenderfer, M.S. & Blashfield, R.K. (1984). *Cluster analysis*. London: Sage Publications.
- Bommer, W. Johnson, J. Rich, G. Podsakoff, P. and Mackenzie, S. (1995). On the interchangeability of objective and subjective measures of employee performance: a meta-analysis. *Personnel Psychology*. 48:587-605.
- Cunningham, G.M. & Harris, J.E. (2001). A heuristic framework for accountability of governmental subunits. *Public Management Review*. 3(2): 145-165.
- Day, P. & Klein, R. (1987). *Accountabilities: five public services*. London: Tavistock.
- Fountain, J. (1991). Service efforts and accomplishment reporting, *Public Productivity and Management Review*, 15(2): 191-198.
- Fowles, A.J. (1993). Changing notions of accountability: a social policy view. *Accounting, Auditing and Accountability Journal*. 6(3): 97-108.

- Frink, D.D., and Ferris, G.R., (1998). Accountability, impression management, and goal setting in the performance evaluation process. *Human Relations*. 51:1259-1283.
- Furnham, A. and Stringfield, P. (1994). Congruence of self and subordinate ratings of managerial practices as a correlate of superior evaluation. *Journal of Occupational and Organizational Psychology*. 67:57-67.
- Giddens, A. (1979). *Central problems in social theory*, London: McMillan.
- Hair, J.F., Anderson, R.E., Tatham, R.L., Black, W.C. (1998). *Multivariate data analysis*. 5<sup>th</sup> ed. NJ: Prentice Hall.
- Institute of Chartered Accountants in Australia/CPA Australia. (2005). Statement of Accounting Concepts No 2, Objectives of financial reports, *Accounting Handbook 2005*, Melbourne: Pearson Education.
- Heneman, H. (1974). Comparisons of self-and superior rating of managerial performance. *Journal of Applied Psychology*. 59:638-642
- Jackson, P.M. (1982). *The political economy of bureaucracy*, London: Philip Allan.
- Johnson, N. (1974). Defining accountability, *Public Administration Bulletin*, 17(December): p. 3-13.
- Kaiser, H.F. (1974). Little jiffy, mark IV. *Educational and Psychology Measurement*. 34: 111-117.
- Kamen, J.M., (1970). Quick clustering. *Journal of Marketing Research*. 7: 199-204.
- Kloot, L. and Martin, J. (2001). Local government accountability: explaining differences, *Accounting, Accountability and Performance*, 7(1): 51-72.
- Krolak-Schwerdt, S. and Eckes, T. (1992). A graph theoretic criterion for determining the number of clusters in a data set. *Multivariate Behavioral Research*. 27(4): 541-565.
- Leat, D. (1988). *Voluntary organizations and accountability*, London: National Council of Voluntary Organizations.
- Milligan, G.W. (1996). Clustering validation: results and implications for applied analyses. in Arabie, P. Hubert, L.J. and De Soete, G. (eds). *Clustering and classification*. NJ: World Scientific Publication.
- Munro, R.J.B. and Hatherly, D.J. (1993). Accountability and the new commercial agenda, *Critical Perspectives on Accounting*, 4: 369-395.
- Normanton, E.L. (1966). *The accountability and audit of government: a comparative study*, Manchester: Manchester University Press.
- Parker, L. and Gould, G. (1999). Changing public sector accountability: critiquing new directions, *Accounting Forum*, 23(2): 109-136.
- Roberts, J. and Scapens, R. (1985). Accounting systems and systems of accountability – understanding accounting practices in their organizational contexts, *Accounting, Organization and Society*. 10(4): 443-456.
- Roberts, J. (1991). The possibilities of accountability, *Accounting, Organizations and Society*. 10(4): 355-368.
- Robinson, D.Z. (1971). Government contracting for academic research: accountability in the american experience, in *The dilemma of accountability in modern government – independence versus control*, Smith, B.L.R. and Hague, D.C. (eds), London: Macmillan.
- Schweizer, K. (1992). A correlation-based decision-rule for determining the number of clusters and its efficiency in uni- and multi-level data. *Multivariate Behavioral Research*. 27(1): 77-94.
- Sinclair, A. (1995). The chameleon of accountability: forms and discourses. *Accounting, Organizations and Society*, 20(2/3): 219-237.
- Sirajuddin, H. S. and Aslam, I. (1995). Accountability, in *Accountability: the endless prophecy*, Sirajuddin, H. S. and Aslam I. (eds), Kuala Lumpur: Asian and Pacific Development Centre.
- Stewart, J.D. (1984). The role of information in public accountability, in *Issues in Public Sector Accounting*, Hopwood, A. and Tomkins, C. (eds), London: Philip Allan.
- Taylor, D.W. and Pincus, K.V. (1999). *Core Concepts of Accounting information*. Sydney: McGraw Hill Inc.
- Taylor, D.W. and Rosair, M. (2000). the effects of participating parties, the public and size on government departments' accountability disclosures on annual reports, *Accounting, Accountability and Performance*, 6(1): 77-97.
- Thynne, I. and Goldring, J. (1987). *Accountability and control: government officials and the exercise of power*. Sydney: Law Book Company.

Table 1. Types of Local Authorities by Management Level of Respondents

Respondents	Types of LAs			Total (%)
	City Council (%)	Municipal Council (%)	District Council (%)	
Departmental Heads	46%	36%	71%	54%
Departmental Senior Officers	54%	64%	29%	46%
Total	n=26	n=134	n=148	n=308

Table 2. Types of Local Authorities by functional responsibility of respondents

Response from Departmental Heads and Senior Officers by functions	Types of LAs			Total (%)
	City Council (%)	Municipal Council (%)	District Council (%)	
Building	19.2%	33.6%	<b>41.2%</b>	36%
Health	11.5%	8.2%	<b>19.6%</b>	14%
Enforcement	3.8%	10.4%	<b>16.2%</b>	12.7%
Engineering	26.9%	<b>28.4%</b>	12.8%	20.8%
Licensing	<b>23.1%</b>	6.7%	4.7%	7.1%
Urban Services	<b>15.4%</b>	12.7%	5.4%	9.4%
Total	n = 26	n = 134	n = 148	n = 308

Table 3. Functions of Departments in Local Authorities in Malaysia

No.	Department	Functions
1	Health	<ol style="list-style-type: none"> <li>to maintain and keep the environment clean from water, noise and air pollution</li> <li>to control the spread of contagious diseases such as cholera, cleanliness of hawker premises and food quality control</li> </ol>
2	Urban Services	<ol style="list-style-type: none"> <li>to provide urban services such as rubbish collection and urban beautification</li> <li>to plan and develop the urban services</li> <li>to the highest level wild dogs and livestock control</li> </ol>
3	Building	<ol style="list-style-type: none"> <li>to process approval of building plans</li> <li>to ensure enforcement on the implementation of development projects</li> <li>to check buildings before issuance of Certificate of Fitness (CF)</li> <li>to prepare project designs for building plans and manage the Authority's building projects.</li> </ol>
4	Engineering	<ol style="list-style-type: none"> <li>to manage the Authority's, State Government's and Federal Government's Projects</li> <li>to identify development projects</li> <li>to receive and process the approval of infrastructure plans</li> <li>to maintain the Authority's assets</li> <li>to plan and maintain the Authority's vehicles.</li> </ol>
5	Licensing	<ol style="list-style-type: none"> <li>to issue licenses for business and permits advertisements, entertainment, etc.</li> </ol>
6	Enforcement	<ol style="list-style-type: none"> <li>to enforce and execute the council's rules and regulations empowered by the Local Government Act 1976, Road and Drainage and Building Act 1974, City and Town Planning Act 1976 and the other by-laws.</li> </ol>

Table 4. Factor Analysis and Cronbach Alpha Tests of the Dimensionality of Accountability

Items (or scales)	Description of Accountability Items (15 items)	Factor 1	Factor 2	Factor 3
1	Highly responsible to ensure efficiency and effectiveness	.581		
2	Set clear operating goals	.707		
3	Maintain regular reporting system on achievements and outcomes	.757		
4	Implement performance measures to ensure quality of service	.809		
5	Abiding by procedures relating to quality assurance	.691		
6	Provision of excellent service to the public in answering enquiries and complaints	.618		
7	Emphasize on giving prompt assistance to the public	.628		
8	Provide considerable information about its services, projects and plans for the locality	.436		
9	Follow treasury rules and regulations in almost all circumstances		.808	
10	Maintains detailed and up to date records according to rules and regulations		.730	
11	Ensure funds are used in an authorized manner		.832	
12	Gives a lot of attention to fully satisfy the requirements of the relevant departments at the State and Federal levels			.444
13	Provide information on performance to councilors			.552
14	Report any serious incidence with negative impact on the public to the Chief Minister			.705
15	Political approval is normally sought to continue spending by a transferring from another vote, once a particular budget vote has been fully used up			.652
EIGENVALUE		6.066	1.293	1.130
% OF VARIANCE EXPLAINED		25.784 (25.784)	19.338 (45.122)	11.467 (56.589)
KMO-MSA		.912		
CRONBACH ALPHA		.8736	.8112	.5435

Table 5. Agglomeration Table

Number of clusters	Agglomeration Coefficient	Change in Coefficient	Percentage change in Coefficient
10	159.4	18.5	11.6%
9	177.9	21.3	12%
8	199.2	24.1	12%
7	223.3	30.2	13.5%
6	253.5	52.4	20.7%
5	305.9	62.1	20.3%
4	368.0	86.1	23.4%
3	454.1	151.8	33.4%
2	605.9	230.1	38%
1	836.0	-	-

Table 6. Mean scores of accountability items for each of the 3 clusters and their statistical difference

Accountability traits (i.e., the key feature in each of the 15 questions)	Cluster 1	Cluster 2	Cluster 3	F value	Sig. level
Performance	<b>4.56</b>	4.15	4.40	12.341	.000
Program	<b>4.46</b>	3.94	3.98	22.093	.000
Program	<b>4.29</b>	3.71	3.74	21.145	.000
Performance	<b>4.12</b>	3.55	3.62	19.765	.000
Quality Assurance	<b>4.29</b>	3.74	3.74	18.351	.000
Service to Public	<b>4.47</b>	3.97	3.92	25.418	.000
Service to Public	<b>4.53</b>	4.04	4.14	21.985	.000
Service to Public	<b>3.99</b>	3.83	3.56	6.248	.002
Legality	4.19	<b>4.42</b>	3.48	34.315	.000
Procedures	4.00	<b>4.17</b>	3.28	28.409	.000
Probity	4.27	<b>4.42</b>	3.52	29.086	.000
Policy	4.10	4.12	4.02	.472	.624
Political	3.78	3.89	<b>4.28</b>	7.745	.001
Political	3.84	4.07	<b>4.38</b>	7.471	.001
Policy	3.71	4.10	<b>4.50</b>	20.679	.000
N (= size of clusters, i.e., number of respondents)	139	119	50		