Financial Vulnerability, Risk Management and Accountability of Non-Profit Organisations

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Abstract

The purpose of this study is to examine the relationships between financial vulnerability and accountability of non-profit organizations in Malaysia. Managing the risks associated with financial vulnerability can potentially enhance organizational ability in delivering its social objective and other accountability responsibilities. Information on financial vulnerability and accountability are obtained from the content analysis of annual reports of 130 societies registered with Companies Commission of Malaysia for the financial period 2011. Financial vulnerability indicators are efficiency, stability, solvency and margin while the extent of accountability is based on strategic accountability, fiduciary accountability, financial accountability, procedural accountability and best practice accountability. Results of this study revealed two important findings. First, the financial vulnerability indicators indicate that most NPOs in the sample are financially vulnerable. This in turn reduces their resources in fulfilling the various accountability responsibilities. Second, the only significant relationship between financial vulnerability measure, STABILITY and the extent of accountability indicate that the financial vulnerability model can be used by board members and management of NPOs in their decision making. Overall, findings in this study indicate that this model can be a useful tool that can facilitate screening, monitoring, and decision making processes for various stakeholders.

Keywords: Financial Vulnerability, Risk Management, Accountability, Non-profit organisations.

1. Introduction

Non-profit organisations (NPO) exist to provide various kinds of public benefits that can include the provision of health services, education, personal social services and cultural services. The establishment of regulatory bodies for NPOs in many countries indicates an acknowledgment of society's increasing reliance on the contribution of these organizations (Ryan & Irvine, 2012). However, the increasing occurrences of fraud and abuse in the non-profit sector (Greenlee et.al., 2007) highlighted the need to protect this sector. Greenlee et. al. (2007) argue that fraud may be easier to perpetrate in this sector as NPOs operate in an atmosphere of public trust, difficulty in verifying certain revenue streams, weaker internal controls, lack of business and financial expertise relative to for-profit organizations. Even though these contributory factors may be due to the non business characteristics of the NPOs, it nevertheless reflects the risks faced by NPOs in meeting their social objectives. Hence, management of NPOs must be able to assure their stakeholders that risks and uncertainties are well managed. Failure to effectively manage risks can lead to withdrawal of support from various stakeholders that are important for the long term survivability of the NPOs.

In managing risks effectively, management must have relevant information that can assist them in identifying the level of risks faced by the organisation. Besides management of NPOs, it is equally important for regulators of NPOs to enhance their governance of NPOs in reducing the likelihood of fraud risks and other risks in the non-profit sector. The body of literature on monitoring of NPOs has identified the use of some financial ratios as a tool that can facilitate screening, monitoring, and decision making processes for various stakeholders in the non-profit sector. These studies attempt to provide some measures that can indicate the ability of the NPOs to meet their goals, ability to use resources effectively and ability to sustain. These indicators are important as financially vulnerable NPOs are more susceptible to financial problems and where these problems persist, it will subsequently affect their sustainability (Chang & Tuckman, 1991, Mwenja & Lewis, 2009, Trussel, 2002). In addition, financially vulnerable organizations are also more susceptible to fraudulent activities (Liou and Yang, 2008, Spathis, 2002). Overall, these studies infer that managing the risks associated with financial vulnerability can potentially enhance organizational ability in delivering its social objective. Following this strand of literature, this study attempts to examine the usefulness of financial vulnerability model based on selected ratios in identifying the extent of accountability practices in NPOs.

Accountability has been defined in numerous ways in the non-profit sector. For example, Stewart (1984) defines accountability as holding one (an organization or individual) to account for their actions, while Lawry (1995) defines an accountability as giving (voluntarily) an account of one's actions and Fry (1995) defines accountability as taking responsibility for one's actions. Irrespective of these variations, Ebrahim (2003) argued that it is paramount to examine the accountability issues in non-profit sector from integrated perspectives as NPOs deal with multiple and sometimes competing accountability demands. In line with this argument, this study examines the extent of accountability based on strategic accountability, procedural accountability, fiduciary accountability, financial accountability and best practices accountability. Accountability practices from these perspectives are examined in this study through disclosures in the statutory annual reports of the NPOs. Disclosure of information in statutory annual reports is one of the main communication medium used by organizations to report on their activities to their stakeholders. As such, Dhanani & Connolly (2012) argue that annual report is one of the most widely used tools with which NPOs can account to their stakeholders. Findings from this study extend the usefulness of financial vulnerability model in assessing the extent of accountability by NPOs.

This paper will proceed with the review of past literature from which hypotheses will be developed. The paper will then proceed to the empirical stage of variable measurement, sampling, data analysis and discussion of results. The final part of this paper presents conclusion, limitations and suggestions for future research.

2. Literature Review And Generation Of Hypotheses

2.1 Financial Vulnerability, Risk Management And Accountability Of Non-Profit Organisations

Financial vulnerability in NPOs reduces the ability of these organisations to provide social products or services and if this persists, it will subsequently affect the long term survivability of the organisations (Chang & Tuckman, 1991, Mwenja & Lewis, 2009, Trussel, 2002). Such financial condition reduces the availability of resources in achieving social objective, compliance with various regulatory requirements and a range of other potential risks associated with the survivability of the NPO. The exposure to these risks is further exacerbated by the unique characteristics of the non-profit sector where NPOs operate in an atmosphere of public trust, less stringent regulatory requirements, difficulty in verifying certain revenue streams, weaker internal controls, lack of business and financial expertise relative to for-profit organizations. These can also increase the occurrence of fraud and abuse in the NPOs (Greenlee et.al., 2012). Overall, these factors highlighted the wide range of potential risks faced by NPOs. Hence, it is important that these risks are effectively managed in enhancing the NPOs effectiveness in achieving their objectives and preserving public trust. This in turn infers an important link between financial vulnerability and accountability of NPOs in delivering their social objectives and upholding the reputation of the non-profit sector.

Accountability in NPOs is generally referred to as organizational responsibility to various stakeholders. Following Dhanani and Connolly (2012), this study adopts four themes of accountability: strategic accountability, fiduciary accountability, financial accountability and procedural accountability. In addition to these themes, this study includes best practice accountability. This is related to the responsibility of the NPO in relation to the adoption of best practices with regards to governing the NPO from money laundering, terrorism financing and other fraudulent activities recommended by advocates in the non-profit sector. In Malaysia, one of the relevant authorities is Asia Pacific Group (APG). Malaysia became member of APG on 31 May 2000 and as a consequent, is required to implement and comply with the Financial Action Task Force (FATF) recommendations with regards to anti-money laundering and terrorism financing. FATF is a policy-making body established in 1989 that is responsible to generate political will in the development of legislative and political reforms in the areas of anti-money laundering and terrorism financing. Assessment on compliance with recommended practices by FATF in the Asia Pacific region is performed by APG. Non-compliance can cause a member country to be blacklisted and subject to various sanctions such as economic sanction, trade restriction and higher level of scrutiny with consequent negative perceptions on the NPO sector. Hence, it is important to identify whether NPOs in Malaysia are accountable in adopting the recommended measures in safeguarding the NPO, the members as well as the public at large. In fulfilling organizational responsibility towards these various accountability themes, an organization must have sufficient resources. Based on this argument, it is expected that NPOs that are financially healthy are more accountable to their various stakeholders. In this study, four measures of financial vulnerability are identified: stability, efficiency, solvency and margin in assessing the financial health of NPOs. This study expects positive relationship between the four measures of financial vulnerability and the extent of accountability. Following this argument, the following hypotheses are developed:

H1 – There is a significant positive relationship between stability ratio and accountability.
H2 – There is a significant positive relationship between efficiency ratio and accountability.
H3 – There is a significant positive relationship between solvency ratio and accountability.
H4 – There is a significant positive relationship between margin and accountability.

3.0 Methodology

3.1 Sample And Data Collection

The sample consists of 130 societies registered with the Companies Commission of Malaysia for the financial year 2011. The research approach involves the content analysis of societies' annual reports. Information on the measures of financial vulnerability and accountability are collected from the information disclosed in these annual reports. Dhanani and Connolly (2012) argue that measurement of accountability through public discourse, i.e. disclose in annual reports allows inclusive perspective of accountability to be measured as disclosure through annual reports is currently used as the principle means of communication by NPOs to their various stakeholders. In addition to the identified independent variables, this study includes size of an organization as control variable. This is based on the argument that smaller organizations are more financially vulnerable (Ohlson, 1980, Tinkelman, 1999, Trussel, 2002). The definitions and measurements of variables used in this study are listed in Table 1.

Table 1: Definition and Measurement of Variables

Variable Acronym	**Definition**	**Measurement**
EFFICIENCY	Financial Vulnerability based on administrative ratio	Ratio of administrative expenses to total expenses
STABILITY	Financial Vulnerability based on concentration index	Hirschman-Herfindahl Index
SOLVENCY	Financial Vulnerability based on Debt ratio	Ratio of total debts to total assets
MARGIN	Financial Vulnerability based on margin	Excess of revenues over expenses relative to revenues
ADI	Accountability	Extent of accountability based on self-constructed index
SIZE	Size of an organisation	Total assets

3.2 Financial Vulnerability Model

This study adopts financial vulnerability model developed by Tuckman and Chang (1991) and extended by Trussel (2002) in measuring financial vulnerability of NPOs. These studies define financial vulnerability as a situation where an organization is not able to avoid curtailing their programs and/or services during a financial shock. Based on these models, this study identifies the following four indicators of financial vulnerability in NPOs:

• Efficiency - the administrative cost ratio measures the percentage of revenues spent on administrative, as opposed to program, costs.

• Stability - the revenue concentration index is a measure of the amount and variety of revenue sources that an organization has.

• Solvency - the ratio of total liabilities to total assets. The debt ratio is a measure of the relative amount of debt that the organization uses to finance its programs and projects.

• Margin - the surplus margin measures the excess of revenues over expenses relative to revenues.

The strength of the models adopted is that it is based on the assumption that NPOs attempt to continue delivering their social objectives even during financial shock. In addition, the ratios can be objectively measured and avoid the need to use output data in measuring financial vulnerability of NPOs. Measurement and definition of output by NPOs requires substantial judgement as output of NPOs are generally intangible in nature and this in turn increases the difficulty in measuring the maximization of their output. Hence, this study adopts these models in measuring the financial vulnerability of NPOs in Malaysia as it can potentially provide useful information to various stakeholders.

3.3 Extent of Accountability

The extent of accountability in this study is measured using a self-constructed index. The identification of items to be included in the index is guided by the review of prior studies relevant to accountability of NPOs (e.g.

Dhanani & Connolly, 2012; Costa et. al, 2011; Ebrahim, 2010 and Ebrahim & Weisband, 2007: Conroy, 2005), mandatory disclosures as required by the Companies Act 1965 and recommended practices by various regulatory authorities. Recommended practices in relation to governance and accountability of NPOs are based on FATF report, APG Mutual Evaluation 2007, APG Typology 2011. Based on the review of relevant literatures, recommended practices and following Dhanani and Connolly (2012), this study adopts four themes of accountability: strategic accountability, fiduciary accountability, financial accountability and procedural accountability. In addition to these themes, this study also includes best practice accountability, reflective of NPOs commitment to adopt best practices with regards to governing the NPO from money laundering, terrorism financing and other fraudulent activities recommended by advocates in the non-profit sector.

The scoring approach used in this study is based on a dichotomous measure where an item scores a one if it is disclosed and a zero if it is not disclosed in the annual report (Chau & Gray, 2002; Cooke, 1989; Gray et al., 1995). As in previous studies, disclosure item considered as not applicable to a company will not be penalised. For each NPO, the extent of accountability is calculated as a ratio of the actual score awarded to the NPO divided by the maximum potential score awarded to that society. The extent of accountability is calculated as follows:

$$ADI = \frac{\sum_{i=1}^{n_j} X_{ij}}{n_j} \qquad (1)$$

Where nj = number of items expected for jth organisation, nj is ≤ 103,

X i j = 1 if i th item disclosed and 0 if i th item not disclosed,

So that 0 ≤ I j ≥ 1

The total score ADIj represents the number of points awarded to NPO j and it is an ordinal measure of the level of ADI for each NPO. The score is additive and unweighted. Based on study by Chow & Wong-Boren (1987), the use of weighted or unweighted disclosure index is interchangeable because they find almost equivalent results using either one of the index.

4. Analysis and Results

4.1 Descriptive Statistics

Table 2 presents the descriptive statistics on the dependent variable, ADI, independent variables and control variable.

Table 2: Descriptive Statistics for Independent and Control Variables

	Minimum	Maximum	Mean
ADI	1	5	3.35
EFFICIENCY	0.00	1.00	0.50
STABILITY	0.00	1.00	0.50
SOLVENCY	0.00	1.86	0.31
MARGIN	-15.24	0.99	-0.04
SIZE (RM)	7,458	701,907,275	18,464,173

Table 2 reported that ADI ranges from a minimum ranking of 1 to 5. Rank 1 indicates excellent extent of accountability, rank 2 indicates good, rank 3 indicates average, rank 4 indicates low and rank 5 indicates very low. The mean value of 3.35 indicates that the extent of accountability by NPOs in the sample is slightly above moderate level. In relation the financial vulnerability indicators, the results in Table 2 revealed that the mean values for EFFICIENCY and STABILITY are 0.50. This indicates that most NPOs in the sample have relatively high administration costs and they also do not have multiple sources of revenues. These two indicators reflect financial vulnerability (Chang & Tuckman, 1991 and Trussel, 2002). In relation to SOLVENCY, Table 2 reveals that the mean value is 0.31 and this indicates relatively high amount of debts are used in financing the operations of the NPOs. This in turn indicates financial vulnerability. Table 2 also reported that the mean value for MARGIN is -0.04 and this indicates that most NPOs suffer losses. Overall, the financial vulnerability indicators reveal that the NPOs in the sample are financially vulnerable. Finally, Table 2 reported that SIZE ranges from RM7,458 to RM701,907,275. This indicates that some of the NPOs in the sample are relatively large NPOs.

4.2 Multivariate Analysis

In this study, linear multiple regression is used as the basis of analysis for testing H1 to H4. The hypothesized relationships are modeled as follows**.**

$$ADI = \beta_0 + \beta_1 EFFICIENCY + \beta_2 STABILITY + \beta_3 SOLVENCY + \beta_4 MARGIN + \beta_5 SIZE + \varepsilon_t$$

where variable definitions are given in Table 1.

In the above regression model, multicollinearity was tested using the variance inflation factor and tolerance levels, and found to be well within the satisfactory range. The results of the regression analysis are presented in Table 3, Table 4a and Table 4b and are now discussed in terms of tests of each of the hypotheses.

Results of the multiple regression analysis in Table 3 report that the adjusted R^2 is 0.025. H1 predicts that EFFICIENCY is significantly positively related to ADI. The results in Table 3 reveal an insignificant relationship. Hence, HI is rejected. Further analyses with individual themes of accountability also reveal insignificant relationships. EFFICIENCY indicates that NPOs have high administration costs and this may indicate lesser reliance on volunteers in their programs (Ryan & Irvine, 2012). This in turn may reduce the availability of the remaining resources in the NPO to fulfill the various accountability responsibilities.

H2 predicts that STABIITY is significantly positively related to ADI. Table 4 reported that STABILITY is significantly positively related to ADI. Hence, H2 is accepted. Even though the descriptive statistics in Table 2 revealed that organisations in the sample do not have access to multiple sources of funds and are considered as financially vulnerable, it is possible that these organisations are receiving their major source of funds from government grants or other major contributors. This in turn allows them to provide their social products or services as well as some accountability responsibilities. Results in Table 4a and Table 4b revealed that STABIITY is positively significantly related with fiduciary accountability and procedural accountability.

H3 predicts that SOLVENCY is significantly positively related to ADI. However, results in Table 3 reported insignificant relationships. Hence, H3 is rejected. It is possible that the high amount of debt among some of the NPOs indicates that these organisations are financial vulnerable (Chang & Tuckman, 1991 and Trussel, 2002) and in turn reduces the ability of the NPOs to fulfill their accountability responsibilities.

H4 predicts that MARGIN is significantly positively related to ADI. Hence, H4 is rejected. The high negative surplus margin reported in Table 2 indicates that the NPOs in the sample suffer losses and this may affect their ability to fulfill their accountability responsibilities. This is further corroborated by the results reported in Table 4a and 4b where MARGIN is insignificantly related to the various themes of accountability.

Table 3: Multiple Regression Results for Factors Affecting the Extent of Accountability

Dependent Variable	**Accountability Overall**		
R^2	0.063		
Adjusted R^2	0.025		
F	1.670		
Sig	0.147		
Model	Beta	t	Sig.
Constant		0.075	0.940
EFFICIENCY	0.083	0.941	0.348
STABILITY	0.184	2.048	0.043
SOLVENCY	-0.127	-1.374	0.172
MARGIN	-0.021	-0.233	0.816
SIZE	0.015	0.166	0.869

Coefficient for each variable is shown with t values in parentheses. * Significant at 10 per cent level (1-tailed test); * * Significant at 5 per cent level (1- tailed test); * * * Significant at 1 per cent level (1-tailed test)

Table 4a: Multiple Regression Results for Factors Affecting the Themes of the Extent of Accountability

Dependent Variable	**BestPractices_Acc**			**Fiduciary_Acc**		
R^2	.029			.060		
Adjusted R^2	-.010			.022		
F	.747			1.572		
Sig	.590			.173		
Model	Beta	t	Sig.	Beta	t	Sig.
constant		-.829	.408		-.045	.964
STABILITY	.062	.682	.496	.152	1.692	.093
EFFICIENCY	.002	.025	.980	-.035	-.393	.695
SOLVENCY	-.015	-.162	.871	-.138	-1.485	.140
MARGIN	-.158	-1.712	.089	-.095	-1.053	.294
SIZE	.030	.328	.743	.115	1.261	.210

Coefficient for each variable is shown with t values in parentheses. * Significant at 10 per cent level (1-tailed test); * * Significant at 5 per cent level (1- tailed test); * * * Significant at 1 per cent level (1-tailed test)

Table 4b: Multiple Regression Results for Factors Affecting the Themes of the Extent of Accountability

Dependent Variable	**Financial_Acc**			**Procedural_Acc**			**Strategic_Acc**		
R^2	.021			.060			.052		
Adjusted R^2	-.019			.022			.013		
F	.527			1.585			1.353		
Sig	.756			.169			.247		
Model	Beta	t	Sig.	Beta	t	Sig.	Beta	t	Sig.
constant		.009	.993		-.240	.811		.299	.765
STABILITY	.054	.584	.560	.216	2.391	.018	.053	.589	.557
EFFICIENCY	.073	.807	.421	-.046	-.522	.603	.078	.888	.376
SOLVENCY	-.087	-.922	.359	.036	.386	.700	-.145	-1.559	.122
MARGIN	-.077	-.828	.409	.001	.011	.992	.078	.853	.395
SIZE	.017	.183	.855	-.068	-.747	.456	.056	.616	.539

Coefficient for each variable is shown with t values in parentheses. * Significant at 10 per cent level (1-tailed test); * * Significant at 5 per cent level (1- tailed test); * * * Significant at 1 per cent level (1-tailed test)

5. Conclusion and Limitations

This study examines the relationships between financial vulnerability and the extent of accountability of NPOs in Malaysia. Financial vulnerability in NPOs reduces the ability of these organisations to provide social products or services as well as various accountability responsibilities. The overall findings indicate that the NPOs in the sample of study are financially vulnerable. This in turn reduces the resources available by the NPOs in fulfilling their organizational accountability. The only significant relationship between financial vulnerability measure, STABILITY and the extent of accountability further corroborate the usefulness of the financial vulnerability model in assessing the extent of accountability by the NPOs. Hence, the findings in this study extend previous studies on the usefulness of the financial vulnerability model to the assessment of accountability in the non-profit sector. Overall, this study indicates the usefulness of the model in facilitating screening, monitoring, and decision making processes by various stakeholders.

There are some limitations in this study. First, this study focuses only on some measures of financial vulnerabilities for one financial period due to the availability of data during the period of study. Future research may include several financial periods in gauging more meaningful analyses of financial vulnerabilities. Second, this study examined the extent of accountability based on information disclosed in annual reports. Future research may consider the use of questionnaires sent to board members or members of the NPOs in gauging the items considered as measurement for accountability of NPOs. Despite these limitations, this study provides useful insights in understanding the relationships between some measures of financial vulnerability and the extent of accountability. Overall, this study infers that managing the risks associated with financial vulnerability can potentially enhance organizational ability in delivering its social objective as well as organizational accountability responsibilities.

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