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# Financial Management in the Nonprofit Sector: A Mission-Based Approach to Ratio Analysis in Membership Organizations

## Abstract

Nonprofit organisations (NPOs) are melting pots combining mission, members and money. Given that the mission of a nonprofit organisation is the reason for its existence, it is appropriate to focus on financial resources in their association with mission and with the individuals who are served by that mission (Parker 2003; Wooten et al 2003; Colby and Rubin 2005). Measurement of financial performance by ratio analysis helps identify organizational strengths and weaknesses by detecting financial anomalies and focusing attention on issues of organizational importance (Glynn et al 2003). Questions have been raised that relate the performance of NPOs to their financial resources, their mission and their membership. Addressing these questions is the key to analysis and measurement of financial and operational control (Turk et al 1995) and provides an appropriate analysis for past performance which will help an organisation chart its future direction. This paper analyses financial performance by concentrating on ratio analysis in order to identify anomalies and focus attention on matters of significant concern to NPOs. It discusses the centrality of mission in the use of financial ratio analysis and extends previous financial performance models to develop one that can be applied to individual NPOs thus ensuring that financial performance analysis is not carried out in isolation from any consideration of an organization's mission. The paper concludes by identifying the limitations of such an analysis and makes suggestions for further application of the model.

## Keywords

nonprofit organization, financial performance, mission, ratio analysis

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# **Financial Management in the Nonprofit Sector: A Mission-Based Approach to Ratio Analysis in Membership Organizations**

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## **ABSTRACT**

Nonprofit organisations (NPOs) are melting pots combining mission, members and money. Given that the mission of a nonprofit organisation is the reason for its existence, it is appropriate to focus on financial resources in their association with mission and with the individuals who are served by that mission (Parker 2003; Wooten et al 2003; Colby and Rubin 2005). Measurement of financial performance by ratio analysis helps identify organizational strengths and weaknesses by detecting financial anomalies and focusing attention on issues of organizational importance (Glynn et al 2003). Questions have been raised that relate the performance of NPOs to their financial resources, their mission and their membership. Addressing these questions is the key to analysis and measurement of financial and operational control (Turk et al 1995) and provides an appropriate analysis for past performance which will help an organisation chart its future direction. This paper analyses financial performance by concentrating on ratio analysis in order to identify anomalies and focus attention on matters of significant concern to NPOs. It discusses the centrality of mission in the use of financial ratio analysis and extends previous financial performance models to develop one that can be applied to individual NPOs thus ensuring that financial performance analysis is not carried out in isolation from any consideration of an organization's mission. The paper concludes by identifying the limitations of such an analysis and makes suggestions for further application of the model.

## **INTRODUCTION**

Nonprofit organisations (NPOs) are melting pots combining mission, members and money. Mission is the central thrust of an NPO, the very reason for its existence (Drucker 1989; Oster 1994). But there is no mission without members. This centrality of mission and members means that although NPOs are 'involved in the provision of health services, education, personal social services, and cultural services of various kinds' (Salamon, Hems and Chinnock 2000, 5), they can be expected to differ from organisations in the other two sectors (businesses and government agencies) which provide similar services (Weisbrod 1989). An NPO has also been defined as an organisation that has 'predominantly nonbusiness characteristics that heavily influence the operations of the organization' (FASB 1980). To this end, an NPO may neglect to use accounting information to facilitate organizational control. The key to this oversight is often related to the culture of the organisation, and the very fact that it is not profit-oriented. Many NPOs started with a 'cause' and lacked an early professional management orientation. This trend is still evident with Froelich et al (2000) reporting that about a third of their sample of 363 large and medium sized NPOs in the USA do not employ staff with accounting qualifications.

An annual operating budget may be the extent of the financial planning with this budget being developed in isolation and not part of a long term strategic plan (Callen, Klein and Tinkelman 2003). Rather than advance planning, NPOs often tend to react to changing circumstances and events. Thus, their systems have developed as responses not as initiatives. Hence, the nature of financial management has been reactive rather than proactive. Arnaboldi and Lapsley (2004) reported that even when an NPO adopted a financial management technique (in their case, activity based costing), it did so to present itself as being "up-to-date and modern to its external controlling environment" (Helmig, Jegers and Lapsley 2004, 105), rather than to actually implement the technique to improve its financial management system.

The rise of accounting at various times in the history of many NPOs appears consistent with times of crises (Abraham 1999). The organisation may hold special meetings, special conferences, special appeals and employ facilitators to attempt to improve the situation. This is consistent with the conclusion that 'accounting arises in partially rationalized (or partially bureaucratized) settings' (Meyer 1994: 129). Meyer further argues that

When [an] organization is relatively complete, controlling its own definition of reality, accounting becomes less necessary, and sometimes intrusive. ... We thus expect to find accountants in greater numbers where [an] organization is not self-sufficient (Meyer 1994: 129-130).

Thus, it appears that an accounting system can operate in an organisation and yet not function as a control mechanism or as a mechanism to provide accountability. In an organisation that values informal relationships, voluntary participation and ‘niceness’, the idea of explicit accountability may be somewhat alien. While the need for accountability is acknowledged, the reality is often a different matter (Lee 2004; Molyneaux 2004). It may be necessary to change the organization’s culture so that accountability is incorporated as a positive value (Little 2004; Poole et al 2001). It may be important to introduce more professional financial management (Gallagher and Radcliffe 2002; Parker 2003). Consequently, the use of accounting as a control mechanism is not merely a technical system, but a socio-technical system ‘because it involves change in the social or cultural system which interacts with the accounting technology’ (Flamholtz 1983: 166).

The next section of this paper analyses financial performance by considering ratio analysis in order to identify anomalies and focus attention on matters of significant concern to NPOs: mission, members and money. The third section discusses the use of financial ratio analysis, while the fourth examines and extends Turk et al’s financial performance model. The final section identifies the limitations of such analysis and provides suggestions for further research.

### **FINANCIAL RATIO ANALYSIS AND MISSION**

Ratio analysis is a well established tool to evaluate an organization’s profitability, liquidity and financial stability (Damodaran 2001; Glynn et al 2003; Block and Hirt 2005). As such it can be used to answer a variety of questions. Turk et al (1995: 1) suggested that the key to analysis and measurement of the financial and operational control and impact is related to the central question: “What is the organization’s mission?” Their framework proposes four sub-questions

- Are financial resources sufficient to support the mission?
- What financial resources are available to support the mission?
- How are financial resources used to support the mission?
- Are financial resources applied efficiently and effectively to support the mission?

Herzlinger and Nitterhouse (1994: 133) used ratio analysis to answer a different set of four questions:

- Are the goals of the organisation consistent with the financial resources it needs to finance those goals?
- Is the organisation maintaining intergenerational equity?
- Is there an appropriate matching between the sources from which resources are derived, and the uses to which they are put?
- Are present resources sustainable?

This series of four does not mention ‘mission’ per se, but there is the underlying idea of goals and focus for the organisation, which affect and are affected by the way in which resources are handled. Another alternative is to combine a number of the questions and ask the single question: “Is the organisation balancing its resources against the current and future needs of its members while providing for the long-term health of the organisation?” (Langan 1998: 76).

This emphasis by an NPO on its mission is reflected in the statement of Stanley Corfman, former chief financial officer of the YWCA of the USA, that

People who are in financial capacities at NPOs [nonprofit organisations] have to understand that we budget for the mission. We don’t change the mission to suit the budget. (Corfman, in interview cited by Dennis 1997: 73)

This difference is also highlighted in the very features that characterize NPOs. In particular, there is ‘no direct relationship between resources provided and goods or services received from the organization’ and ‘operating goals and purposes ... are not profit-based’ (Martin and West 2003: 185). Furthermore, NPOs do not share the same financial management objectives as business organisations and often characterize their financial resources in different ways (Chabotar 1989). Thus the emphasis of ratio analysis in NPOs is mission-centered and therefore more appropriately on stewardship and accountability.

Consequently, whatever questions are used as a basis, financial ratio analysis formalizes and quantifies financial data to facilitate comparison within an organisation. Ratio analysis provides an efficient means by which financial data can be reduced to a more understandable basis for evaluation of financial conditions and operating performance. Secondly, it offers a method by which a decision-maker can identify important relationships. Thirdly, it generates a channel by which forecasts can be made of an organization’s ability to pay its debts when due and to operate in a manner consistent with its mission without leaving a deficit to be covered by future generations. Each ratio is designed to detect a certain type of symptom in relation to the underlying

state of health of the organisation, with a collection of symptoms suggesting an appropriate treatment plan. The roles of five of the more commonly used ratios, summarized in Table 1, display a degree of overlap between financial vulnerability and financial performance measures.

**Table 1: Role Of Financial Ratios In Financial Analysis**

<b>RATIO</b>	<b>ROLE IN FINANCIAL ANALYSIS</b>
Asset turnover	Matches assets and goals. Slow turnover assets required considerable investment and reduce flexibility
Profitability and return on invested capital	Analyses intergenerational equity and the match between source and uses of money. Neither excessive profits nor losses are desirable
Liquidity and solvency	Matches sources and uses of financial resources. Is the organisation flirting with insolvency in the short-term or in the long-term?
Percentage of revenues, by source	Analyses quality of revenues and relation to mission. Is the organisation excessively dependent on a few revenue sources? Are revenue sources consistent with organization's mission?
Percentage of expenses, by type	Analyses quality of expenses and relation to mission. A large percentage of fixed expenses decrease the organization's flexibility. Are expenses consistent with the organization's mission?

*Source: after Herzlinger and Nitterhouse (1994, p. 7)*

### **A MODEL OF FINANCIAL PERFORMANCE ANALYSIS**

To measure financial performance in an NPO, it is essential to start with a consideration of the organization's mission (Drucker 1990; Fonner and Tang 1995; Turk et al 1995; Preyra and Pink 2001), such as those posed the various questions raised earlier.

These questions can be answered by using financial and operational ratios. The analytical capabilities of ratio analysis play an important place in assessing an organization's current financial state, establishing measures for future strategies and tasks to accomplish its mission, evaluating its performance over time, and deciding how the organisation should proceed in the future. Turk et al suggested specific ratios that can be used to answer key questions, but these ratios have been developed so as to be applicable for an independent higher education institution, such as a university or college. These sets of ratios are not directly transferable to the many NPOs which are membership-based organisations.

Consequently, some ratios have been used as suggested by Turk et al, some have been deleted completely and others have been modified or reconstructed to reflect the different mission and structure of membership NPOs. In addition, care has been taken to ensure that not all ratios are purely related to money, but also to members, who are at the heart of the mission of many NPOs. The remainder of this section is organized under four questions which bring together mission, members and money. Each sub-section identifies and discusses the various financial ratios that are appropriate to analyze a member-based NPO's performance and its capacity to accomplish its mission.

#### **Q1. Does the NPO have adequate money to support its mission?**

This question is primarily concerned with the sufficiency and flexibility of financial resources and, thus, is concerned with figures on both the balance sheet and the income statement. Since the balance sheet is a snapshot of an organisation at a particular point in time, one can judge not only whether an organisation is healthy at that date, but the extent to which its resources have changed since the last snapshot, the balance date last year.

The income statement shows the operating result for a period of time and whether this results in a surplus or a deficit indicates whether the organisation has lived within its means or not. If not, then it is being financed by past or future members, rather than the current membership, which raises the issue of intergenerational equity. The four primary ratios that could be used to give an indication of whether the resources of a member-based organization are sufficient to support its mission are summarized in Table 2.

**Table 2: Ratios That Indicate Whether Financial Resources Are Sufficient To Support Mission**

RATIO	MEASURES ...	FORMULA
Return on net assets ratio	total economic return to determine whether organisation is financially better off over time	$\frac{\text{change in net assets}}{\text{total net assets}}$
Viability ratio	availability of non-current assets to cover debt should organisation need to settle its obligations quickly	$\frac{\text{net current assets}}{\text{non-current liabilities}}$
Primary reserve ratio	how long the organisation could operate using its current assets without relying on a surplus from operating activities	$\frac{\text{net current assets}}{\text{total expenses}}$
Net income ratio	whether core operating activities resulted in a surplus or a deficit	$\frac{\text{change in net assets}}{\text{total core income}}$

**Q2. What sources of funding are available to support the NPO's mission?**

This question is concerned with the issue of long-term financing. It addresses how the organisation uses debt to support its mission and the extent to which it generates both internal and external revenues and resources. It is important for an NPO to be wary of investments that divert resources and focus from its mission to some other activity (Silverman 2004). This issue has been debated in many NPOs, often over a number of years. Proponents may insist that organizational fixed assets should be developed, thus providing investment which would both generate external sources of revenue and be useful to the organisation itself (Schaefer 2004). However, opponents of this plan may claim that the NPO has a particular mission which would not be enhanced by such a proposal (Birrell and Hayes 2004; Lewis 1998). This conflict has arisen for many youth organisations which own valuable underdeveloped property. The argument involves a balance between recognizing that their central mission is the business of youth development and leadership programs, and that therefore, it may be inappropriate to branch out into something else such as conference centre management.

The five primary ratios that give an indication of the financial resources that are available to support the mission of an organisation are summarized in Table 3.

**Table 3: Ratios That Indicate What Financial Resources Are Available To Support Mission**

RATIO	MEASURES ...	FORMULA
Operating income ratio	extent to which income from member services contributes to overall financing of the mission	$\frac{\text{membership service income}}{\text{expenses from core activities}}$
Contributed income ratio	extent to which externally generated resources contribute to overall financing of core activities	$\frac{\text{income from contributions}}{\text{expenses from core activities}}$
Debt burden ratio	cost of borrowing to overall expenditure	$\frac{\text{cost of debt serving}}{\text{total expenditure}}$
Debt coverage ratio	extent to which net operating income covers debt service payments	$\frac{\text{net operating income}}{\text{cost of debt servicing}}$
Leverage ratio	extent of financial leverage	$\frac{\text{unrestricted net assets}}{\text{total liabilities}}$

**Q3. How is NPO's mission supported by the available financial resources?**

This question focuses on the central economic question of allocation of scarce resources (Keizer 2005). In considering its mission, the organisation needs to identify its core activities and its support activities, and to determine how resources are used or distributed between these areas. This issue is a contemporary one for many member-based organizations, which have recently begun to produce their revenue and expenditure statements divided into two classifications, core and non-core activities, whereas in the past all activities may have been aggregated.

There are two primary ratios that give an indication of how the financial resources of such organisations are used to support its mission. These are summarized in Table 4.

**Table 4: Ratios That Indicate How Financial Resources Are Used To Support Mission**

<b>RATIO</b>	<b>MEASURES ...</b>	<b>FORMULA</b>
Membership services ratio	whether core services use a growing or dwindling share of resources	$\frac{\text{membership services expenses}}{\text{membership \& general income}}$
Membership support ratio	whether support services use a growing or dwindling share of resources	$\frac{\text{membership support expenses}}{\text{membership \& general income}}$

#### **Q4. Is the application of the financial resources both efficient and effective?**

The fourth question concerns issues of accountability and financial performance. It addresses the ways in which resources are used and asks whether there are better ways of meeting the organization's mission and objectives (Colby and Rubin 2005; Silverman 2004). Of prime concern is assessment of organizational productivity. Different organisations stress various elements of performance and accountability. These major strategic goals require careful measurement to answer any question about efficiency and effectiveness. The common components of a balanced approach for a profit-centered organisation include profitability measures, customer satisfaction measures, innovation measures, and internal measures of efficiency, quality and time (Horngren, Foster and Datar 2004). However, these elements need to be expressed differently for an NPO, because its focus is on mission, rather than profitability. Furthermore, the five strategic goals (quality, customer satisfaction, retention, velocity and productivity) identified by Turk et al, while relevant to a nonprofit educational organisation, are not all easily operationalized to a member-oriented NPO.

Quality of inputs should focus on the members, the leaders, the program, the activities and the structures, but it is often difficult to find ratios by which these can be measured in an NPO. How can the level of quality be determined? It is possible to consider the ratio of expenditure on operations and facilities to total income, or the age of the facilities, but measuring quality in relation to people or programs is more difficult. A possible measure is the number of members per leader, assuming that better quality is delivered when this ratio is smaller. Another measure of quality may relate to the training of the leaders.

The retention of membership is a further important goal in measuring the efficient and effective use of resources, but it is also difficult to measure this in many NPOs. Members may change their activities as they reach a certain age, and many may still see themselves as members, even though currently inactive. There are often few records tracing an individual's passage through the organisation. If membership figures were to remain static for a year, there may be no way of knowing whether the membership itself has been unchanged or whether the same number of new members started as those that officially 'left'. An attempt at measuring retention rates, could be to use the change in "member" membership and the change in "leader" membership. However, the organisation would be better able to gauge its effectiveness and efficiency in the use of its resources, if it were to collect data that would make possible a clearer measurement of the strategic goal of retention.

Turk et al (1995) also considered velocity (or the measure of speed involved in completing a service) as a measure of efficiency and effectiveness. Whereas this may be important in educational institutions where students will wish to complete their degree in a timely manner, it is not appropriate to a nonprofit membership organisation where quality, not time is the issue.

Productivity is another of Turk et al's goals which it is difficult to operationalize in many NPOs. Productivity concerns identifying outputs achieved as the result of inputs of resources, whether human, monetary or structural. Therefore, it would be valuable to have information such as volunteer hours and use of organizational assets by both members and non-members. Nevertheless, human resource productivity and financial productivity may be measured by the ratio of members to leaders, and the ratio of core service costs to the number of members.

Consequently, four strategic goals (quality, satisfaction, retention and productivity) may be considered as indicators of whether financial resources are applied efficiently and effectively to support the mission. Ratios to measure these are explained in Table 5.

**Table 5: Ratios Indicating Whether Financial Resources Are Applied Efficiently And Effectively**

GOAL & RATIOS		MEASURES ...	FORMULA
<b>Quality</b>			
	Members per leader ratio	The average size of operational units	$\frac{\text{change in membership}}{\text{change in no. of leaders}}$
<b>Membership satisfaction</b>			
	Total membership and leadership trends ratio	the consistency of demand for membership	$\frac{\text{total members/leaders this year}}{\text{total members/leaders base year}}$
<b>Retention</b>			
	Membership trends ratio	the consistency of demand by members for NPO's program	$\frac{\text{members this year}}{\text{members base year}}$
	Leader membership trends ratio	the consistency of demand for membership by leaders	$\frac{\text{leader membership this year}}{\text{leader membership base year}}$
<b>Productivity</b>			
	Change in membership ratio	the percentage change in numbers of members	$\frac{\text{change in membership}}{\text{no. of members}}$
	Cost per member ratio	the financial productivity for each dollar spent in relation to members	$\frac{\text{core operating costs}}{\text{Membership}}$

### **LIMITATIONS OF FINANCIAL RATIO ANALYSIS FOR NPOs**

Manipulating numbers to calculate financial ratios means that one is focusing on individual trees, but must take a step back and see the whole panorama of the financial analysis forest. Doing this means recognizing the limitations which should be considered when interpreting the results of financial ratio analysis.

The ratios and percentages that are calculated in financial analysis focus on certain areas in isolation to rest of the organisation. It is important to interpret these figures in the correct perspective, bringing into the examination qualitative factors such as general economic conditions, the unique characteristics of the nonprofit sector and the position of the organisation being investigated within the sector and also in relation to its own historical and cultural evolution.

There are also inherent limitations in the financial statement data which is used for the calculation of these ratios. Since many NPOs are not subject to accounting regulation (Sievers 1996), the way in which their reports have been presented is entirely at the discretion of those preparing them. This means that there may be difficulties with uniformity in reporting. Even the words may be taken to mean different things. Alternatively, a term used in a financial report, may not be given the same meaning by the reader as was intended by the preparer. Furthermore, the focus of operations of NPOs changes over time, making comparisons difficult.

It is not just the preparation of the reports which may differ over time, but also the accounting practices used by the organisation. Some examples of such changes in practice are outlined below.

A further limitation is that of historical cost accounting. There are a number of levels of dollars in the balance sheet, with assets such as accounts receivable being stated in current dollars and non-current assets such as land being stated at historic cost. This makes comparative analysis across years difficult, particularly with the varying inflation rates of the past eighty years. In the 1920s, inflation rates were not even considered; in the 1970s, inflation was in double digit figures; today, it is between one and three percent.

Given these limitations, it is important that the interpretation of financial ratios 'be tempered with consideration of the underlying data quality, the effects of flexibility in accounting, and the limitations of historical cost accounting' (Herzlinger and Nitterhouse 1994: 170).

In order to operationalise this model, these ratios must be calculated and analyzed for the individual organisation. Ideally, historical data, possibly for up to ten years, should be considered in developing trend



analysis for the NPO. This would enhance the measurement of organizational strengths and weaknesses, and identification of planning activities on which it is necessary that the organisation focus in order to revive its financial profile in relation to its mission.

## CONCLUDING REMARKS

Measurement of financial performance by ratio analysis helps identify organizational strengths and weaknesses by detecting financial anomalies and focusing attention on issues of organizational importance. Given that the mission of an NPO is the reason for its existence, it is appropriate to focus on financial resources in their relationship to mission.

The application of this financial performance model to an individual NPO may identify a number of issues that need to be grasped and resolved. However it must be realized that these issues will not be purely financial, but bear direct relationships to the culture and traditions of the organisation – for mission is central to the heart of every NPO (Callahan 2002; Colby and Rubin 2005). This view is consistent with the challenge for ‘nonprofit organizations ... to explore new ways of raising the operating revenue and capital they need to pursue their mission’ (Lyons et al 1999: 217).

To continue as a viable organisation into the future, an NPO may have to deal with some difficult concerns that may very well move people out of their comfort zones. The organization’s management team may need to consider advice on how to say goodbye to services, programs and assets that have outlived their time because “It’s vitally important in a changing environment, as your customers’ or clients’ needs change, that you adapt your services to meet their current and future needs” (Cohen 1999: 9).

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