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### **A mission-centric approach to financial ratio analysis in the nonprofit sector**

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## A mission-centric approach to financial ratio analysis in the nonprofit sector

### 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 [1] [2] [3]. Measurement of financial performance by ratio analysis helps identify organisational strengths and weaknesses by detecting financial anomalies and focusing attention on issues of organisational importance [4].

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 [5] 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 organisation's mission: This is demonstrated by adopting a case study approach and applying the model to a specific member-based NPO in order to assess the organisation's past financial and economic performance and thus forecast its future direction. The paper concludes by identifying the limitations of such an analysis and makes suggestions for further application of the model.

### Keywords

Mission, Centric, Approach, Financial, Ratio, Analysis, Nonprofit, Sector

### Disciplines

Business | Social and Behavioral Sciences

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# **A MISSION-CENTRIC APPROACH TO FINANCIAL RATIO ANALYSIS IN THE NONPROFIT SECTOR**

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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 [1] [2] [3]. Measurement of financial performance by ratio analysis helps identify organisational strengths and weaknesses by detecting financial anomalies and focusing attention on issues of organisational importance [4].

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 [5] 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 organisation's mission. This is demonstrated by adopting a case study approach and applying the model to a specific member-based NPO in order to assess the organisation's past financial and economic performance and thus forecast its future direction. The paper concludes by identifying the limitations of such an analysis and makes suggestions for further application of the model.

**Keywords:** nonprofit, ratio analysis, financial performance, mission, members

## **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 [6] [7]. 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' [8, p. 5], they can be expected to differ from organisations in the other two sectors (businesses and government agencies) which provide similar services [9]. An NPO has also been defined as an organisation that has 'predominantly nonbusiness characteristics that heavily influence the operations of the organization' [10]. To this end, an NPO may neglect to use accounting information to facilitate organisational 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 a recent study 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 [11].

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 [12]. 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. [13] 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" [14, p. 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 [15]. 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' [16, p. 129]. Furthermore, it is argued 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 [16, pp. 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 [17] [18]. It may be necessary to change the organisation's culture so that accountability is incorporated as a positive value [19] [20]. It may be important to introduce more professional financial management [21] [3]. 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' [22, p. 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. This is followed by a description of the particular organisation to which this model has been applied as a case study in this paper. The fourth section discusses the use of financial ratio analysis while the fifth examines and extends [5]'s financial performance model. The sixth section applies the model to the specific NPO. 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 organisation's profitability, liquidity and financial stability [23] [4] [24]. As such it can be used to answer a variety of questions. [5, p. 1] suggest that the key to analysis and measurement of the financial and operational control and impact is related to the central question: "What is the organisation's mission?" Their framework proposes four sub-questions:



1. Are financial resources sufficient to support the mission?
2. What financial resources are available to support the mission?
3. How are financial resources used to support the mission?
4. Are financial resources applied efficiently and effectively to support the mission?

[25, p. 133] used ratio analysis to answer a different set of four questions:

1. Are the goals of the organisation consistent with the financial resources it needs to finance those goals?
2. Is the organisation maintaining intergenerational equity?
3. Is there an appropriate matching between the sources from which resources are derived, and the uses to which they are put?
4. 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?" [26, p. 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 [27, p. 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' [28, p. 185].

**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 organisation's mission?
Percentage of expenses, by type	Analyses quality of expenses and relation to mission A large percentage of fixed expenses decrease the organisation's flexibility Are expenses consistent with the organisation's mission?

*Source: after [25, p. 7]*

Whatever questions are asked, 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 organisation'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.

### **THE AUSTRALIAN WOMEN'S ORGANISATION**

This case study is of the Australian Women's Organisation (AWO), a voluntary NPO that started in Australia on a formal basis in 1920, (although it had informal beginnings as early as 1910) and has operated continuously ever since. It had its roots in a British organisation, which was formed a few years earlier, and which grew out the military training techniques of its founder. Its members wear uniforms, subscribe to a code of behavior and make certain promises upon joining. The activities of the members follow a program, designed to develop the individual's character and public service, while providing the individual with fun, fellowship and a sense of purpose. The organisation is part of an international affiliation of similar organisations, this affiliated body being the largest of its type in the world.

At the time of the study AWO's expenses had exceeded its income for a number of years. There also appeared to be a marked dichotomy between short term and long term financial management, both of which were heavily influenced by its mission and its organisational culture. To facilitate a financial consultancy, AWO provided access to full accounting records for the twelve year period, 1986-1997, together with minutes of all meetings and personal contact with all levels of management. This period appears to be representative of the organisation's past financial history and there is no indication that the pattern has changed over the years since.

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

To measure financial performance in an NPO, it is essential to start with a consideration of the organisation's mission [29] [30] [5] [31], 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 organisation'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 [5, p. 4].

[5] 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 such as the AWO. Consequently, some ratios have been used as suggested by [5], some have been deleted completely and others have been modified or reconstructed to reflect the different mission and structure of 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 organised under four questions which bring together mission, members and money. Each sub-section identifies and discusses the various financial ratios that are appropriate to analyse 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 the AWO are sufficient to support its mission are summarized in Table 2.

**TABLE 2: RATIOS THAT INDICATE WHETHER FINANCIAL RESOURCES ARE SUFFICIENT TO SUPPORT MISSION**

<b>RATIO</b>	<b>MEASURES ...</b>	<b>FORMULA</b>
Return on net assets ratio	the 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	the 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 generated by 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 [32]. This issue has been debated in many NPOs with proponents insisting that organisational fixed assets should be developed, thus providing investment to both generate external sources of revenue and be useful to the organisation itself [33].

However, opponents of this plan may claim that the NPO has a particular mission which would not be enhanced by such a proposal [34] [35]. This conflict has arisen for many youth organisations which own valuable underdeveloped property. The argument is between recognising 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**

<b>RATIO</b>	<b>MEASURES ...</b>	<b>FORMULA</b>
Operating income ratio	the extent to which income from services to members contributes to the overall financing of the mission	$\frac{\text{membership service income}}{\text{expenses from core activities}}$
Contributed income ratio	the 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	the cost of borrowing to overall expenditure	$\frac{\text{cost of debt serving}}{\text{total expenditure}}$
Debt coverage ratio	the extent to which net operating income covers debt service payments	$\frac{\text{net operating income}}{\text{cost of debt servicing}}$
Leverage ratio	the 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 [36]. 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 the AWO, which produced its revenue and expenditure statement divided into two classifications, core and non-core activities, for the first time in 1997. In the past, all activities have been aggregated, there being no regulatory reason to do otherwise. There are two primary ratios that give an indication of how the financial resources of the AWO are used to support its mission. These are summarized in Table 4.

### **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 organisation's mission and objectives [2] [32]. Of prime concern is assessment of organisational 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-centred organisation include profitability measures, customer satisfaction measures, innovation measures, and internal measures of efficiency, quality and time [4] [37]. 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 [5], while relevant to a nonprofit educational organisation, are not all easily operationalized to a member-oriented NPO such the AWO.

**TABLE 4: RATIOS THAT INDICATE HOW FINANCIAL RESOURCES ARE USED TO SUPPORT MISSION**

RATIO	MEASURES ...	FORMULA
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	$\frac{\text{membership support expenses}}{\text{membership \& general income}}$

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. For AWO, a possible measure is the number of girl members per adult, 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 the AWO. Members change their sections as they reach a certain age, and many still see themselves as members in adulthood. There are often few records tracing an individual's passage through the organisation. If membership figures were to remain static for a year, there is 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 girl membership and the change in adult 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.

[5] also considered velocity, 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 such as the AWO, where quality, not time is the issue. Productivity is another of [5]'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 organisational 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 TO SUPPORT MISSION**

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 trends ratio	the consistency of demand for membership	$\frac{\text{total members this year}}{\text{total members base year}}$
<b>Retention</b>			
	Girl membership trends ratio	the consistency of demand by members for program	$\frac{\text{girl members this year}}{\text{girl members base year}}$
	Leader membership trends ratio	the consistency of demand for membership by adults	$\frac{\text{adult membership this year}}{\text{adult membership base year}}$
	Adult membership trends ratio	the consistency of demand for membership	$\frac{\text{adult members this year}}{\text{adult members base year}}$
<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 of each dollar spent	$\frac{\text{core operating costs}}{\text{total membership}}$
	Cost per member ratio	the financial productivity for each dollar spent in relation to members	$\frac{\text{core operating costs}}{\text{membership}}$

### APPLICATION OF THE MODEL

This financial ratio analysis model was applied to the AWO by posing the four questions with respect to the organisation and calculating the relevant ratios for the its twelve financial periods from 1986 to 1997.<sup>1</sup> The remainder of this section discusses these results and the trends that were implied.

#### Q1. DOES THE NPO HAVE ADEQUATE MONEY TO SUPPORT ITS MISSION?

The four ratios outlined in Table 2 were applied to the AWO from 1986 to 1997 and are discussed individually.

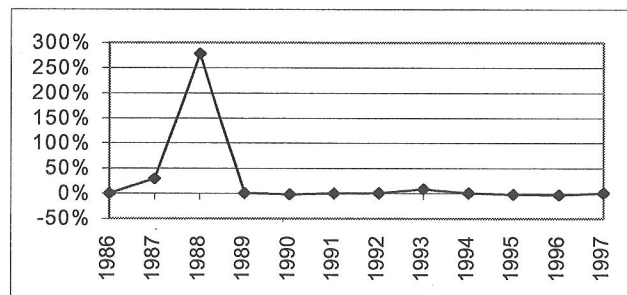
##### 1.1 Return on Net Assets Ratio

The return on net assets ratio highlights the issue of intergenerational equity by measuring the organisation's ability to generate net assets given its current capital base. The graphical

<sup>1</sup> The first nine financial periods are of one year's duration and extend from 1 May one year until 30 April the following year. In 1995, the AWO changed its balance date. Consequently, the tenth financial period is of only eight months duration extending from 1 May 1995 until 31 December 1995. The final two financial periods in the analysis are for calendar years from 1 January to 31 December. Ratio analysis is a relative measure and so the length of the financial period does not make comparison difficult. However, the same membership figures have been used for both financial periods finishing in 1995.

representation in Figure 1 clearly indicates that in most years there is negligible generation of net assets. In other words, apart from 1988, the AWO had not been strengthening its future financial flexibility by increasing its asset base. In some years it had even been depleting it further, thus using the equity contributed by past members.

**FIGURE 1: RETURN ON NET ASSETS RATIO FOR AWO FOR 1986-1997**



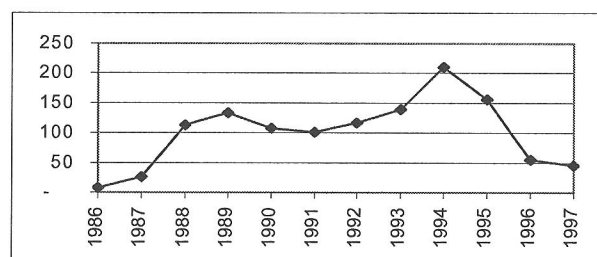
The apparent high ratio in 1988 was because the AWO sold a property previously recorded at historical cost, making a significant profit on book value, and thus a significant change in assets as property was converted to a term deposit. However, it is inappropriate to consider such a 'windfall' as generating new assets. If the organisation were to carry its property at market value rather than historical cost, such anomalies would not occur.

## 1.2 Viability Ratio

The viability ratio highlights the financial health of the organisation at a point in time. There are two issues that need to be considered. The first is the value of the ratio; the second is the trend in that value over time. As to the first issue, the fact that the value of the ratio is always greater than 1, indicates that the AWO is financially healthy. At any balance date in the twelve year period, the organisation has sufficient expendable net assets to satisfy its debt obligations.

But what about the movement of the ratio during this period? It increased dramatically after 1988 with the sale of the property mentioned above. This sale resulted in AWO's expendable assets increasing from just under \$700,000 in 1998 to \$3,200,000 in 1999. The mortgage repayment at the time of sale, meant that non-current liabilities were significantly reduced. Figure 2 shows that this ratio dipped, then rose again to peak in 1994, after which it fell substantially each year.

**FIGURE 2: VIABILITY RATIO FOR AWO FOR 1986-1997**



This decrease was due to the use of cash reserves to meet annual deficits, but it was also caused by a change in accounting policy, with the AWO accounting for long service leave

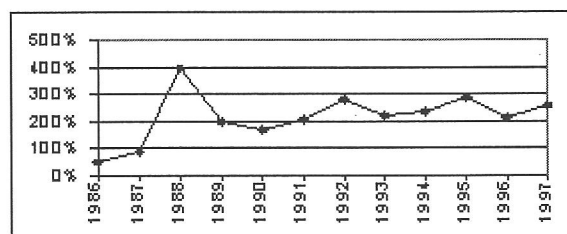


entitlements by increasing the provision account with each year of an employee's service, rather than only when a person had been employed for at least ten years as previously.

### 1.3 Primary Reserve Ratio

The primary reserve ratio acts as a supplement to the viability ratio. The denominator, total expenses, acts as a proxy for organisational size, with higher primary reserve ratios indicating financial strength. The ratio of around 50% at the beginning of the twelve year period, suggests that the AWO had a reasonable degree of financial flexibility allowing it to implement or support additional programs in relation to its mission. In 1986, the organisation had the ability to cover six months of expenses.

**FIGURE 3: PRIMARY RESERVE RATIO FOR AWO FOR 1986-1997**

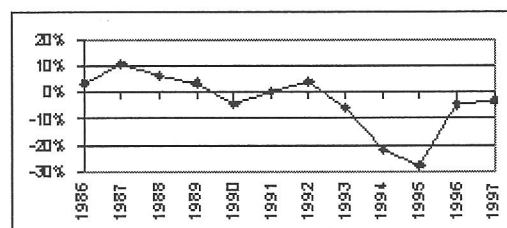


Then came the property sale in 1988 which significantly increased the expendable net assets of the AWO, and thus the primary reserve ratio. The ratio fell over the next couple of years with the increased expenses of settling into the new location. Figure 3 shows that after 1991, the ratio was at an average around 250%. This is reasonably high, indicating that the AWO's strong position for capital or program expansion.

### 1.4 Net Income Ratio

The net income ratio indicates whether the organisation lived within its means during the relevant financial period. The overall trend of the ratio during the twelve year period was one of continuing decline with a pattern of deficit ratios emerging in the latter half of the period. Nevertheless, the last two periods, although still negative, indicate a reversal in the downward trend. This reversal reflected the decision taken at an AWO Management meeting in early 1995. Until that time, despite receiving each year's figures, the Management Committee appeared to have been unaware of the negative trend in results. As a result of seeing that graph to that date, the Committee decided that they must endeavor to reverse the trend. Figure 4 shows that for the next two years, they were successful in doing so.

**FIGURE 4: NET INCOME RATIO FOR AWO FOR 1986-1997**



However, that reversal only occurred by the Management Committee being continually reminded about the financial position of the AWO, and that their proposed expenditure may be inconsistent with the overall direction they had chosen to go. The members of the Committee were rich in skills related to the achievement of organisation's mission, but largely, have no experience in financial management. In order to ensure a healthy pattern of returns into the future, rather than depending on crisis management, the Management Committee should continue to focus on restructuring the organisation's income and expense streams, as part of a larger strategic plan.

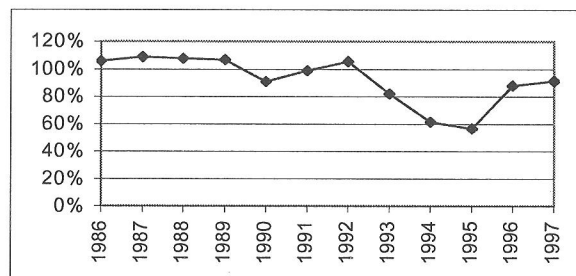
## **Q2. WHAT SOURCES OF FUNDING ARE AVAILABLE TO SUPPORT THE NPO'S MISSION?**

The five ratios outlined in Table 3 were applied to the AWO for its twelve financial periods from 1986 to 1997 and the results are discussed individually.

### **2.1 Operating Income Ratio**

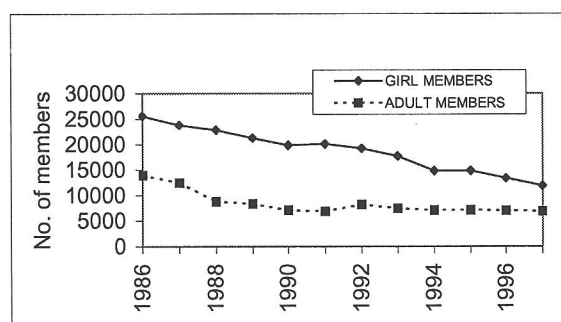
The operating income ratio indicates the performance of the AWO from self-generated activities. Apart from the dip in 1990 and 1991 due to unusually low results from trading operations in those years, the trend line in Figure 5 remained relatively constant between 1986 and 1992. However, there was a steep fall to 1995 and then a partial recovery in 1996 and 1997. The consistency of this trend with that shown in Figure 4 indicates the large extent to which the organisation was dependent on self-generated income. Despite the fall in membership numbers during this period (see Figure 6), membership income continued to rise each year until 1993 when increases in fees could no longer cover the decreased membership numbers. From 1997, membership fees were also introduced for adult members, causing the overall membership income to rise again.

**FIGURE 5: OPERATING INCOME RATIO FOR AWO FOR 1986-1997**



But it is not only membership fees that are affected by membership size. The ability to generate funds from trading activities and membership events is also directly related, with such contributions falling as overall membership numbers fall. This fall in numbers meant that the AWO displayed a weakening financial performance from self-generated activities, and thus must look to other sources of funds, and to rationalising its expenses in order to ensure sufficient financial resources to support its mission.

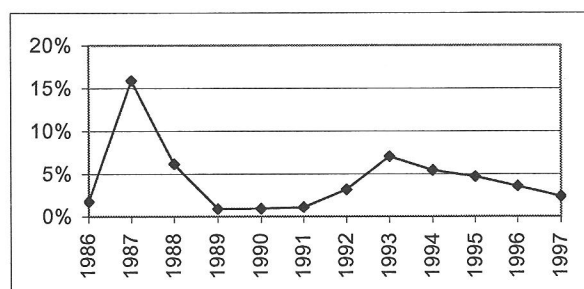
**FIGURE 6: MEMBERSHIP OF AWO FOR 1986-1997**



## 2.2 Contributed Income Ratio

The AWO does not have a good track record of attracting external sources of funding. With the exception of the abnormal profit from the sale of property in 1988 (shown on Figure 7 as 1987<sup>2</sup>), external contributions to the organisation from grants, donations and fundraising ventures are relatively insignificant. However, in the light of the organisation's recent history of deficit results, they are still important. The steady decrease in this ratio in the later years, indicates that the AWO must either obtain other sources of funds or decrease operating costs.

**FIGURE 7: CONTRIBUTED INCOME RATIO FOR AWO FOR 1986-1997**



## 2.3 Capital Financing Ratios

The remaining three ratios shown in Table 6 all concern the income stream available to cover non-current liabilities. Since the AWO had little outstanding debt after the sale of the property in 1988, these ratios do not contribute materially to an analysis of the organisation's current finances. However, they do indicate that the organisation has a significant debt-free asset base upon which to seek future external financing to expand its programs, if so desired.

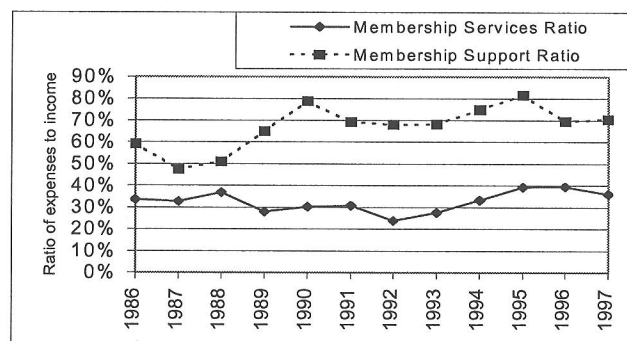
## Q3. HOW IS NPO'S MISSION SUPPORTED BY THE AVAILABLE FINANCIAL RESOURCES?

The two ratios outlined in Table 4, analysing whether core services to its members and support services to its mission were using a growing or dwindling share of financial

<sup>2</sup> This apparent anomaly is due to the change of balance date of the AWO in 1995 from 30 April to 31 December. This meant that there was a set of results for 1994-95 and another for 1995. For simplicity the convention has been adopted of calling these "two year spanning" financial periods by the year in which the financial period commenced. Hence the year labelled 1987 actually covers the period 1 May 1987 to 30 April 1988.

resources, were applied to the AWO for the twelve financial periods from 1986 to 1997. These two ratios indicate the proportion of income that is spent specifically on services to members and the proportion of income that is used to provide support services. The apparent large discrepancy between these two ratios is shown in Figure 8 which indicates that direct services had only consumed, at the most 40 percent of income, and had recently begun a downward trend. On the other hand, 1987 (when the large profit from the sale of property was recorded) was the only year in which less than 50 percent of income was spent on providing support, and that trend appears to be increasing again.

**FIGURE 8: MEMBERSHIP SERVICES AND SUPPORT RATIOS FOR AWO FOR 1986 – 1997**



There may be some argument over what is placed into each of these categories; the division here being what is spent on services that members directly receive, as opposed to expenditure on support functions such as administration, accounting and public relations. The analysis demonstrates that significantly less resources are devoted to the core activities that are directly related to the mission of the AWO, than to activities that are designed merely to assist in carrying out these core services. This seems to be the wrong way around for two reasons. First of all, it is inappropriate that less is spent on the mission than on the 'administration' of the mission. Secondly, the AWO had suffered a number of deficit years this decade, although there appeared to be extra slack available in support expenditure, particularly in the light of the decline in membership over those years.

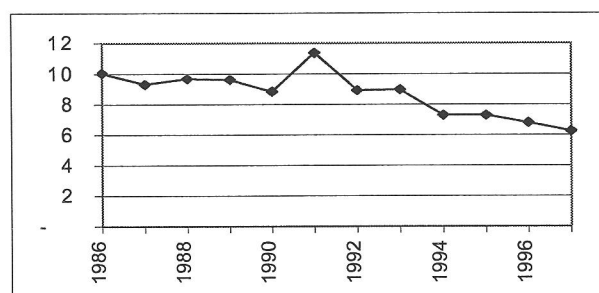
#### **Q4. IS THE APPLICATION OF THE FINANCIAL RESOURCES BOTH EFFICIENT AND EFFECTIVE?**

Table 5 presented four strategic goals for effective and efficient use of financial resources and various ratios which could be used to measure the attainment of these goals.

##### **4.1 Quality**

The ratio of girls to leaders was assumed to be an appropriate measure of quality, in that the smaller the ratio, the more time a leader would have to spend with each girl. This ratio fell steadily over the twelve year period implying that overall quality had improved, with leaders having more time to work with and listen to individual girls. This trend shows clearly in Figure 9.

**FIGURE 9: GIRLS PER LEADER RATIOS FOR AWO FOR 1986-1997**



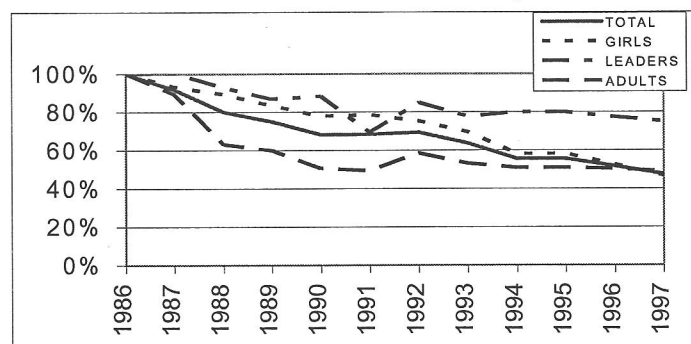
Another ratio that was considered appropriate to measure quality was the number of trainings attended by leaders. It was unnecessary to track the actual numbers for this because the policies for issuing and renewing warrants to leaders are strongly enforced. Leaders cannot be warranted (be put in charge of girls) until they have attended their first training, and must attend another training at least every two years in order to have their warrants renewed.

#### 4.2 Membership Satisfaction and Retention

Membership satisfaction is perceived to be largely related to retention of members and so there is a significant overlap in the ratios that are appropriate for each. Trends have been considered in relation to four subdivisions<sup>3</sup> of membership in the AWO: overall, girls, leaders and adults. The base year was taken as 1887 and all other years expressed as an index of that year. These four trend ratios are presented graphically in Figure 10.

Overall membership had fallen steadily from 1986 to around 50% in 1997. However, the various subdivisions of leadership have not all fallen at the same rate. The number of leaders had seen the least significant change of the twelve year period, decreasing steadily (apart from the dip in 1991) to an index of 75%. The number of adult members (including leaders) fell sharply to 1990 and then remained steady at an index around 50%. The decline in girl membership had reached the same index as the adults (50%) but it was more evenly spread over the period. Figure 10 indicates that the fall in adults had plateaued, but that the fall in girls was still occurring.

**FIGURE 10: MEMBERSHIP TRENDS RATIOS FOR AWO FOR 1986-1997**



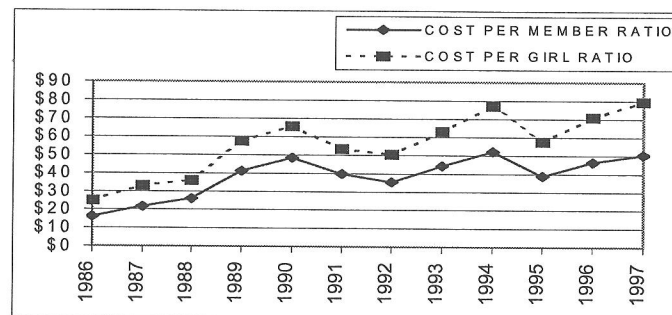
<sup>3</sup> There are no actual "levels" of membership in the AWO. Any person who has "made her promise" is considered to be a member, regardless of whether or not she is financial. Of course, this raises the issue of when do members stop being members, and the answer usually given is "never". For the purposes of this analysis, the numbers are those of active members provided in annual reports.

What does this say about customer satisfaction and retention? It appears that the same proportion of both adults and girls left the AWO over these twelve years. The adults left faster than the girls, but those adults that remained after the first six years, continued as active members, apparently satisfied with where the organisation was going. Girl membership was affected by a higher turnover than adult membership, with girls being defined as between the ages of six and eighteen, while leaders are those members over eighteen. Thus the attrition rate for the girls is the difference between girls leaving and new members starting. Consequently, this decline in girl membership does not necessarily indicate lack of satisfaction of existing members nor low retention rates, but may have been due to natural attrition when girls reached the age of eighteen, together with an organisation that for some reason was not attracting as many new members as previously.

### 4.3 Productivity

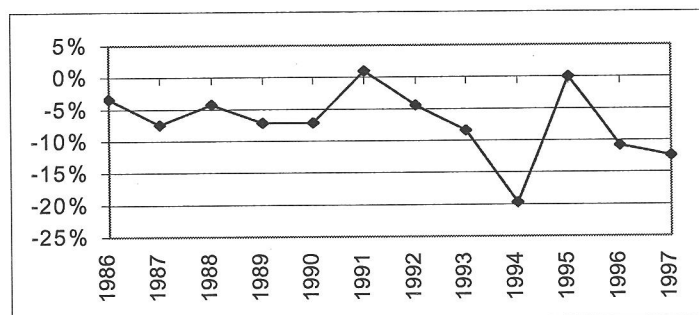
Productivity can be considered in terms of quality and quantity. With respect to quality, the AWO had tried to consistently present a high quality service. It had done this by ensuring that its leaders were appropriately trained, that there was a common, well-structured program and that there was a network of links available for help and assistance. Quality can also be viewed in relation to the number of dollars spent per member. Figure 11 shows that financial productivity had risen over the twelve year period, in that there was an increasing trend in average expenditure per girl member. The trend in costs per member (girls and adults) showed the same relative increase, indicating that the expenditure per adult member had remained constant. This additional spending on girls, as opposed to adults is consistent with the mission of the AWO being directed towards 'girls and young women'.

**FIGURE 11: FINANCIAL PRODUCTIVITY FOR AWO FOR 1986-1997**



Quantity can also be considered as a measure of productivity. However, if the number of members serviced is taken as an appropriate measure, ratio analysis demonstrates that the organisation was servicing considerably less members at the end of the twelve year period than at the beginning (see Figure 12).

**FIGURE 12: ANNUAL CHANGE IN GIRL MEMBERSHIP FOR AWO FOR 1986-1997**



### **SUMMARY OF RATIO ANALYSIS MODEL APPLIED TO AWO**

The application of this financial performance model to the AWO indicates a number of issues which need to be grasped. However, these issues are not purely financial, but bear direct relationships to the culture and traditions of the organisation.

#### **Q1. DOES THE NPO HAVE ADEQUATE MONEY TO SUPPORT ITS MISSION?**

This is very much a 'yes' and 'no' answer. By considering the primary reserve in isolation, it appears that the AWO is in a strong position for capital or program expansion. The viability ratio has a value greater than 1 and so the organisation is financially healthy in that it can meet all its debts. However, the viability ratio is declining, indicating an erosion of assets as a result of recurring deficits.

The AWO has a large asset base, which it is not using to generate intergenerational equity. Thus, if the organisation wished to expand, it would need to sell a fixed asset because, given its current financial situation, it would be unable to service a loan. Selling a fixed asset, such as an AWO property, and then investing the proceeds in capital or program expansion, would generate additional revenue without continually increasing membership fees, a method no longer covering the operating expenses. At the end of the study period, the financial resources of the organisation were sufficient to support its mission. However, the limited flexibility of these resources will eventually reduce their sufficiency as well.

#### **Q2. WHAT SOURCES OF FUNDING ARE AVAILABLE TO SUPPORT THE NPO'S MISSION?**

The AWO relies heavily on income from self-generated, member-based activities. Yet, the decline in membership was responsible for the reduction in the income from membership subscription, trading, surpluses from events and fundraising activities. At the same time, other income sources were also falling, with the result that the organisation was having difficulty in covering its operating expenses.

#### **Q3. HOW IS NPO'S MISSION SUPPORTED BY THE AVAILABLE FINANCIAL RESOURCES?**

It is therefore appropriate to consider the extent to which income was being spent on direct membership services, such as training, program, camping properties, region grants and annual



reports, as opposed to being spent on supporting those services. Support includes such items as office administration, computing costs, accounting costs, publicity, insurance and stationery costs for items that never get into the hands of the members.

A comparison of membership support and membership service ratios indicates that twice as much was being spent indirectly, mainly as administrative costs, to that which was being spent directly on AWO programs and activities. The ratio of support costs was increasing, even at a time when membership was in decline, and had been for a number of years.

#### **Q4. IS THE APPLICATION OF THE FINANCIAL RESOURCES BOTH EFFICIENT AND EFFECTIVE?**

The decrease in the number of girls to leaders may indicate higher quality delivery because of smaller group sizes. However, the very fact that girls were leaving at a steady rate, and that the numbers of leaders and other adults members were remaining relatively static indicates that the mission may not actually be supported – in that the AWO is appealing more to older women rather than to ‘girls and young women’ as expressed in its mission statement.

Dollars spent per member had increased more than threefold over the twelve year period – a figure in excess of inflationary trends. It would be difficult to justify such a rapid increase in costs per member. It is certainly unlikely that members at the end of the period were being serviced with activities and programs that were three times better than those at the beginning.

#### **LIMITATIONS OF FINANCIAL RATIO ANALYSIS**

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

1. 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.
2. Further, there are inherent limitations in the financial statement data which is used for the calculation of these ratios. Since the AWO is not subject to accounting regulation<sup>4</sup>, the way in which its 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 changes over time, making comparisons difficult.

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<sup>4</sup> The AWO was incorporated under a special act of Parliament and so is not subject to accounting requirements of either Corporations or Associations Law.

3. 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 separate Trading Account Statement was first provided by the AWO in 1949. For the previous twenty five years, the trading had been incorporated into the General Account. The separate statement was provided annually until 1953, then reintroduced from 1956-1958. It was again reintroduced in 1967 and has been included in each set of financial statements since then.
  - When comparative figures were used for the first time by the AWO in 1961, adjustments were made to the 1960 figures to make the bases consistent with the current year.
  - Prior to 1966, separate financial statements were provided for the Gift Shop and for Special and Specific Funds. In 1966 these were incorporated into the general accounts. Some years later, funds for specific purposes were included in the Investment and Building Fund rather than in the General Account. In 1996 such funds were shown in the balance sheet, with funds out of which the investment was made being credited to a Special Purpose Funds Reserve and the comparatives being adjusted to reflect this.
  - A separate Building Pool Account (now Investment and Building Fund) was initiated in 1966 and has been reported separately from the General Account since that date.
4. 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' [25, p. 170].

### CONCLUDING REMARKS

Measurement of financial performance by ratio analysis helps identify organisational strengths and weaknesses by detecting financial anomalies and focusing attention on issues of organisational 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 [38] [2]. 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' [39].

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

organisation'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" [40, p. 9].

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