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Measuring Financial Efficiency of Nonprofit Organisation: A Literature Review

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ABSTRACT

In an era of globalisation, nonprofit organisations operating environment has become more competitive, and their goals and priorities are constantly being adjusted to reflect changing trends. The prevailing view on essential financial measurement surprises researchers and practitioners working with nonprofit organisations partially due to a general lack of empirical tests of existing measures. Past literature on nonprofit organisations employs a variety of methods for calculating financial efficiency. Among the techniques are the use of financial ratios. Hence, there is a need to reveal how efficient nonprofit organisations are regarding their financial performance. Therefore, the purpose of this paper anticipates providing a literature review on financial efficiency focusing on financial ratios measurement on nonprofit organisations.

Keywords: Financial efficiency; Financial ratio; Nonprofit organisations; NPOs.

INTRODUCTION

A nonprofit organisation is one whose primary objective is not profit maximisation. In the book Managing a Nonprofit Organisation (Wolf, 2012), the term nonprofit organisation refers to those legally constituted, non-governmental entities incorporated under state law as charitable or not-for-profit corporations set up to serve some public purpose and are tax-exempted by the Internal Revenue Service (IRS). Nonprofit organisations are hugely diversified, including religious institutions, universities, museums, homeless shelters, civil rights groups, labour unions, political parties, and environmental organisations, healthcare organisations, charitable organisations, voluntary agencies, aid agencies, foundations, trade unions, cooperatives, social enterprises, humanitarian disaster relief agencies and organisations of the third sector (Boris and Eugene Steuerle, 2006; Moxham, 2009). While Lettieri, Borga, and Savoldelli (2004) define a nonprofit organisation as an organisation whose primary objective is to create social value for society and not prioritise profit for stakeholders. Corresponding to Moura, Lima, Deschamps, Van Aken, Costa, Treinta, and Cestari (2019), a nonprofit organisation has financial management restrictions and does not share benefits with stakeholders, regardless of whether they are the organisation's owners, investors, or financiers. As we know, nonprofit organisations' funds are derived from public donations. They actively seek funds to cover the cost of administration, and the expending of nonprofit organisations activities in return will benefit society. This necessitates that the nonprofit organisation's budget is dedicated primarily to charitable purposes. Donations made to nonprofit organisations are typically tax-deductible to individuals and businesses that make them. The organisations themselves pay no tax on the received donations or any other money earned through fundraising activities.

Efficiency is associated with achieving an economic goal in the sense of achieving the optimal cost-benefit ratio (Ruhli and Sauter-Sachs,1993). According to Ku-Mahamud, Ghani and Kasim (2010), efficiency measurement is concerned with how effectively an organisation utilises its resources to generate output. Therefore, resource optimisation can significantly improve an organisation's efficiency and competitiveness. Overall, efficiency theory is concerned with the relationship between resources used and results obtained. For a nonprofit organisation, efficiency can be interpreted as accomplishing its mission at the lowest possible cost (Ecer, Magro and Sarpça, 2017). So it is an ideal that guides how an organisation decides to spend its funds or allocate its resources to maximise its value.

Financial efficiency plays a vital role in showing the effectiveness of an organisation in managing its finances. According to Prentice (2016), financial measures provide an empirical basis for analysing organisational capacity, financial health, and efficiency by nonprofit researchers and practitioners. The financial efficiency measure refers to financial ratio, a principle component of two identified data variables obtained from an organisation's financial statements. Often used in accounting, there are many standard ratios used to attempt to evaluate the overall financial health of a company or other organisation. Hence, it is understandable why individual donors and funding institutions are concerned with the financial efficiency of nonprofit organisations. So that, nonprofit organisations need to maintain enhancing their efficiency (Lettieri et al., 2004).

Financial ratios provide an organisation with a means of assessing its performance. Ratios are used to quantify the relationship between two or more financial statement components. They are most effective when comparing results over multiple periods. Financial ratios can be classified based on the information they provide to the specific purpose for which they are being used—financial ratios are valuable indicators for measuring the financial efficiency of nonprofit organisations. By relying on financial ratios, nonprofit organisations have largely emphasised definitions of efficiency centred on cost minimisation and the presence of cost structures (Coupet and Berrett, 2019). As such, the purpose of this study is to conduct a review of prior research on evaluating the financial efficiency of nonprofit organisations through the use of financial ratios. A systematic approach was used to review the published literature on this topic. The remainder of this paper is organised by detailing the method following with analysing the financial ratios used to measure the financial efficiency of nonprofit organisations—finally, the recommendations for future studies.

RESEARCH METHOD

A review of the literature was carried out in this paper by searching, collecting, and analysing relevant published articles on nonprofit organisations' financial efficiency. The author began the review by describing the search strategy, divided into three stages: identification, screening (inclusion and exclusion criteria), and eligibility.

Identification is a process that entails searching for synonyms, related terms, and variants of the study's primary keywords, efficiency, financial efficiency, and nonprofit organisations. It aims to extend the database's search functions for finding additional relevant articles for the review. The initial step is to identify the keywords that will be used. Next, similar keywords related to nonprofit organisations were used based on previous research. Finally, the author improved existing keywords and created a complete search string (using phrase searching, wild card, truncation, Boolean operators, and field code functions) for the two major databases, Scopus and Web of Science (Table 1).

Why did the author choose these two databases? Scopus is one of the largest abstract and citation databases, peer-reviewed journals in high-level subject areas such as life sciences, social sciences, physical sciences, and health sciences. Additionally, it is user-friendly.

Similarly, Web of Science is a subscription-based website that provides access to multiple databases containing comprehensive citation data for various academic disciplines, including science, social science, the arts, and the humanities. After searching using these two databases, Scopus and Web of Science, 17 articles were discovered.

Table 1: The Search String

Databases	Keywords used
Scopus	TITLE-ABS-KEY(("financial efficiency") AND ("nonprofit organi?tion*" OR "non-profit organi?ation*" OR “NPO*") AND (“financial ratio*”))
Web of Science (WoS	TS=(("financial efficiency") AND ("nonprofit organization*" OR "non-profit organization*" OR "NPO*") AND (“financial ratio*”))

This study screened all 17 selected articles using automated criteria selection based on the database's sorting function. To ensure the review's quality, the author includes only articles containing empirical data published in a journal. Additionally, the review includes only articles written in English to avoid reader misunderstandings (Table 2). This process had excluded two articles as they did not fit the inclusion. Therefore, the remaining articles were used for the third process - eligibility.

Table 2: The Inclusion and Exclusion Criteria

Criteria	Inclusion	Exclusion
Document type	Article journal (empirical data)	Article review, chapters in the book, book series, book, conference proceeding
Language	English	Non-English

Eligibility refers to the author manual screening of the articles retrieved to ensure that all articles that passed the screening process met the criteria. This process was accomplished by reading the articles' titles, abstracts, and conclusions/discussions. This process excluded nine articles due to the focus on financial ratio indicators. Thus, there were a total of six articles chosen.

RESULT

The review was able to obtain six articles. This paper's subsequent analysis focused on financial efficiency measures using financial ratios. First, the author reviewed the study done by Omondi-Ochieng (2018a, 2018b). The first study focused on the United States Table Tennis Association (USTTA), while the second examined the United States Triathlon

Association (USA Triathlon) (UST). Financial efficiency for both organisations was assessed by program services ratios and support services ratios measured in three aspects: program services ratio, support services ratios, and return on asset ratio. The findings discovered that USTTA was highly ineffective, spending an average of more than 81 per cent of its revenues on programs. In 2015, the organisation was most ineffective, spending 89 per cent of total revenue on programs and suffered a -29.7% Return on Assets (ROA). However, 2009 was perhaps the most effective year, with 70 per cent of revenues spent on program services and a high ROA of 4.3 per cent. In 2007, the organisation effectively utilised its assets, achieving a ROA of 12 per cent. In contrast, UST showed a different result of financial efficiency. UST provided inefficient program services at a rate of 77 per cent on average but presented efficient support services at 18 per cent on average. In addition, with an average ROA of 14 per cent, the organisation was highly efficient at converting assets to revenue (ROA).

Secondly, the same authors expanded their research on this subject by examining another Nonprofit National Sports Organisation (NNSO) in the United States, US Hockey Inc. (USH). They used the same financial efficiency measures, namely the program services ratio and ROA ratio, as in their previous research on USTTA and UST, but did not include support service ratios in the calculation. USH was highly ineffective in this study, spending an average of more than 79 per cent of total revenue on the program. In 2009, the organisation was largely ineffective, with the program accounting for 87 per cent of total revenue. On the other hand, USH struggled to convert its assets to revenue, as evidenced by a low average ROA of 1.45 per cent and a - 12.2 per cent ROA in 2014.

Thirdly, other nonprofit organisations associated with professional sports teams were reviewed. The study by Sparvero and Kent (2014) compares two classifications of sports team nonprofit organisations: public charities and private foundations. Financial efficiency was computed using expense ratio, working capital ratio, operating margin, and debt ratio. The non-parametric independent samples Mann-Whitney U test was used to calculate the ratios. The result indicated that public charities had a significantly higher program expense ratio ($U=390$, $p=.015$) and a significantly higher debt ratio ($U=358.5$, $p=.005$) than private foundations. Furthermore, no significant difference was detected in the working capital ratio or operating margin. Additionally, the findings indicate that some sport team nonprofit organisations are not concerned with financial efficiency and may exist primarily for public relations purposes.

Another study examined how individual donors make donation decisions based on financial and non-financial information of nonprofit organisations. The sample for this study consisted of undergraduate students at two universities in the Eastern United States. Individual donors are more likely to acquire non-financial information than financial information, according to the findings. After acquiring both types of information, individual donors incorporate non-financial information into their donation decisions, but not program or fundraising expense ratios. It demonstrates that an organisation's financial efficiency indirectly affects individual donations and their impact on donors' confidence. Additionally, it discovered that financial efficiency and participant donations interact to some extent: Allowing participants to set donation limits can compensate for a nonprofit organisation reported inefficiency and thus significantly increase their donations. Allowing donors to restrict their contributions, on the other hand, has a more negligible effect on individual donations if the organisation reports high efficiency (Li, McDowell, and Hu, 2012).

Lastly, a study done on a large group of nonprofit organisations consisted of higher education, arts, culture, and humanities, education, health, human services, religion, public and societal benefit, mutual benefit and hospitals. These authors adopted three metrics commonly used in nonprofit organisations: overhead ratio, administrative expense ratio, and fundraising ratio, then create a metric that measures nonprofit organisations program service revenue. The study found that higher revenues from program services are typically associated with lower overhead ratio and administrative expense ratio values, thus higher efficiency. Simultaneously, the coefficient of program service revenue is significantly consistent with the hypothesis that nonprofit organisations rely heavily on donations for revenues specialising and capable of fundraising than rely more on program services revenue. According to the magnitude of the assessment, a ten percentage point increase in revenue from program services ratio corresponds to a 0.29 percentage points increase in fundraising ratio. In general, larger organisations are more efficient as measured by both ratios (Ecer et al., 2017).

CONCLUSIONS AND RECOMMENDATION

A paper set with six articles related to the research field was examined. This review provided a surface understanding of the study of measuring financial efficiency in nonprofit organisations based on a literature review by focusing on financial ratios. This review also further contributes to understanding the research in nonprofit organisations by highlighting the various findings discussed related to measuring the financial efficiency of nonprofit organisations and keeping track of changes in the organisation's measurement of financial efficiency. Furthermore, integrating multiple research streams and then analysing the variations within them will extract their most important and relevant insights and provide a rule base for discussing their findings. Furthermore, the findings contribute to a better understanding of the extent to which this field develops on previous research by employing financial efficiency measures, including such program services ratio, support services ratio, ROA ratio, overhead ratio, administrative expense ratio, fundraising ratio, debt ratio, total assets ratio, working capital ratio, and operating margin.

The present study contributes to several future research directions. It is recommended that a research agenda for other financial efficiency measurement methods in nonprofit organisations be structured in the future, identifying the primary research teams and primary research questions to be studied to contribute to the integration of research in this area of study. Additionally, the literature review design should be refined by using a more detailed content analysis of the articles and the creation and analysis of case studies that demonstrate the application of these factors in nonprofit organisations.

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