A Methodology for Measuring the Financial Sustainability of Non-Profit Organizations-

An Empirical Investigation Using Financial Ratios

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ABSTRACT

Non-profit Organizations (NPOs) are increasingly considered leaders that bring together people, money, and knowledge to address social problems. Fiscal sustainability is crucial for these organisations to be viable and effective over the long term. The measurement and assessment of the financial sustainability of NPOs have proven to be challenges for scholars and professionals. This article proposes a structured framework that measures financial sustainability through the application of (i)Financial efficiency (FE), (ii)Profitability performance (LP), (iii) Solvency performance (SP), and (iv) Liquidity performance (LP) indicators. This quantifiable framework was applied to analyze the annual reports of Indian NPOs. The empirical analysis shows that most organizations are on the path of evolution in sustainability. The unique contributions of this study lie in its detailed, context-specific methodology for assessing the financial sustainability of NPOs in India, its use of robust archival data, the development of a comprehensive and nuanced scoring system, and its multi-year analysis that reveals important financial trends and patterns. These contributions enhance academic literature and provide practical insights for NPO managers in India, particularly in the absence of a standardized methodology for evaluating financial sustainability.

KEYWORDS: Annual report, Financial Sustainability, Non-profit organizations, Financial Statement analysis.

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INTRODUCTION

Voluntary Organizations (VO) contribute significantly to society through their efforts to fulfil humanrequirements, often operating in conjunction with for-profit businesses and government initiatives(Murray Svidroňová et al., 2016; Soriano & Galindo-Martin, 2012; Svidroňová et al., 2016). How sustainability is defined, assessed, and enhanced has been a significant topic of debate in the non-profit arts and cultural industry for the last 20 years (Scurto-Davis, 2014). For non-profit organisations to be viable and successful over the long run, fiscal sustainability is crucial (Roberts,2003). Though studying the financial sustainability of nonprofit organisations has always been a difficult undertaking, the current financial crisis has also spurred more attempts to quantify financial sustainability in the non-profit sector. Lack of formalised procedures for classifying NPOs into uniform subgroups and acquiring similar data across organisations for extensive, qualitative study has made the task even more difficult (Froelich et al., 2000).

This article proposes the need for a clear and precise definition of the word 'non-profit organization' (NPO). The Society for Participatory Research in Asia (PRIA) has established a definition for a non-profit organization (NPO) based on international recommendations. According to PRIA, an NPO must fulfill five criteria simultaneously: it must have an institutional identity, be independent of the government, no distribution of profits, self-governing, and voluntarily established. Obtaining financial assistance is a challenging issue that non-profit organizations encounter worldwide. This issue has been addressed in the works of numerous authors(Gajdová & Majdúchová, 2018). Ensuring financial sustainability is of paramount importance for the continued survival of a non-profit charitable organization (NPO)(Varghese & Ajukurian, 2021). Although NPOs deliver vital services nationwide and internationally, their effectiveness is still a subject of considerable debate (Herman & Renz, 1999; Jackson & Holland, 1998). The measurement and evaluation of the overall sustainability of NPOs have proven to be challenges for both scholars and professionals(Ritchie & Kolodinsky, 2003). Specifically, the utilization of a bewildering assortment of financial metrics by NPOs can be attributed to a general lack of convergence of financial performance criteria(Herman & Renz, 1998). This study aims to develop a robust and standardized methodology for evaluating the fiscal sustainability of NPOs. In this article, the financial sustainability of NPOs is assessed using a weighted scoring system that categorizes organizations into three main levels (Sustainability Enhanced, Sustainability Evolving, and Sustainability Impeded).

INDIAN SCENARIO

Nonprofit organisations address problems, innovate, create jobs, generate income, and develop community leaders in all fields of endeavour. With 2.6 million jobs and 2.4 million full-time volunteers, these organisations are economic engines of growth that provide employment numbers greater than those of the public sector. Nonprofit organisations have established themselves as one of India's most significant humanitarian forces during the last 75 years. The industry has had a significant positive impact on women's development, education, health, livelihoods, skill development, disability, and the arts and culture. By 2030, these civil society organisations have a greater chance of achieving all of the Sustainable Development Goals (SDGs) via collaboration with governments. They have made a vital and admirable contribution to the nation-building of the next generation(Sarin, 2023).

TABLE 1 Contribution of Non-profit Institutions to GDP

Countries	Country Non-Profit Contribution to GDP (in %)
Canada	8.21
Israel	7.34
Mozambique	6.67
United States	6.23
Belgium	5.91
Japan	5.30
France	4.71
Brazil	3.43
Kyrgyzstan	2.32
India	2.00

(Source: Author's Compilation)

Note: These figures reflect the contribution of Non-Profit Institutions to GDP based on data from the last decade

TABLE 2 Estimates of The Economic Contribution of the NPO Sector in India (2009-10 To 2021-22)

Year	Estimated GVA of the NPO sector (INR crore)	Share in GDP (percent)
2008-09	74,058	1.41
2009-10	86,139	1.46

2010-11	1,05,884	1.47
2011-12	1,22,747	1.49
2012-13	1,30,992	1.53
2013-14	1,69,971	1.54
2014-15	1,94,825	1.60
2015-16	2,10,257	1.67
2016-17	2,52,974	1.74
2017-18	2,82,489	1.75
2018-19	3,13,512	1.83
2019-20	3,66,871	1.94
2020-21	3,87,754	1.97
2021-22	4,15,786	2

(Source: Author's Compilation)

The table above provides estimates of the magnitude and growth of the NPO sector's economic impact throughout time. According to estimates, the NPO sector's economic contribution to the Indian economy grew from around Rs. 74,058 crores in 2008–09 to almost Rs. 4,15,786 crores in 2021–2022. The NPO sector's economic contribution as a percentage of GDP grew from around 1.41% in 2008–09 to 2% in 2021–2022. Assessing the financial sustainability of NPOs in India is essential due to their significant and growing economic contribution. In addition to creating a significant amount of jobs and volunteer work, NPOs are essential to the advancement of the Sustainable Development Goals (SDGs) and addressing socio-economic challenges. Evaluating their financial sustainability ensures effective resource allocation, enhances transparency and donor confidence, and supports long-term resilience and impact. This assessment is vital for optimizing operational efficiency, maintaining accountability, and sustaining their crucial contributions to community development and nation-building.

LITERATURE REVIEW

DEFINING FINANCIAL SUSTAINABILITY

Previous research on financial sustainability and assessment has been inconsistent; the definitions used, the methods of analysis, and the interpretations of the results all vary depending on the study's objectives (Groves et al., 1981). Financial sustainability is a multifaced concept that has been defined differently in most studies(Bowman, 2011b; Tuckman & Chang, 1991). Because it depends on the particular goals and organizational structure of each organization, financial sustainability lacks a universally accepted definition (Sontag-Padilla et al., 2012). The terms of

financial health, financial condition, vulnerability, predictability, flexibility, capacity, financial efficiency, and financial performance were used by Myser to characterise the financial sustainability of non-profit organisations. Vulnerability, stability, capacity, and flexibility were the top four dimensions of financial sustainability (Myser, 2016). According to Patricia León, "Financial sustainability is an organization's capacity to obtain revenues (grants or otherwise) to sustain productive processes (projects) at a steady or growing rate to produce results (accomplish the mission, goals, or objectives)"(León, n.d.). Building on the consensus established by earlier research's definitions, this paper broadly defines financial sustainability as the capacity of an organization to manage its financial resources effectively and maintain its operations over the long term. This definition incorporates four key indicators: Financial Efficiency (FE): Profitability Performance (PP), Liquidity Performance (LP), and Solvency. By evaluating financial sustainability through these four dimensions, the study provides a comprehensive framework for assessing the long-term financial health and operational viability of non-profit organizations.

METHODOLOGY TO MEASURE FINANCIAL SUSTAINABILITY

The evaluation of financial sustainability in NPOs is a relatively underexplored area, with limited methodologies available in the existing literature. The majority of existing literature predominantly focuses on assessing financial health and performance, there is a significant disparity in evaluating sustainability. This imbalance highlights the need for more comprehensive studies that integrate sustainability metrics alongside traditional financial indicators to provide a fuller picture of organizational health. Several approaches have been proposed, but the focus has often been on related concepts such as financial vulnerability rather than sustainability. "One of the most prominent works in this field is the methodology developed by Tuckman & Chang (1991), which measures financial vulnerability. Their approach emphasizes the ability of NPOs to withstand financial shocks by examining four key metrics: equity balance, revenue concentration, administrative cost ratio, and operating margin. However, while their work was influential, it was more concerned with the organization's ability to survive sudden financial shocks rather than ensuring its sustainability in the long run. Another notable contribution is the framework suggested by Woods Bowman (2011b). He underlined that both short-term and long-term periods were part of NPO viability. The rate at which financial capacity changes throughout both short-term sustainability (annual surpluses) and long-term financial sustainability (asset growth) is how NPO leaders gauge financial sustainability according to Bowman's sustainability principle. However, Bowman said that yearly surpluses are required to sustain asset values at replacement costs over time in order for NPO leaders to retain financial viability. His methodology lacks clarity on classifying organizations into different sustainability levels, making it difficult for practitioners to

apply his criteria consistently. Ryan & Irvine, (2012) proposed a set of important financial ratios that management and nonprofit boards can employ. By applying the ratios to financial data from the 2009 reports of international aid organisations connected with the Australian Council for International Development (ACFID), they illustrated its utility in practice. McLaren & Struwig, (2019) suggest a set of financial ratios, including those for performance, liquidity, asset management, debt management, and reserves, that are useful for evaluating financial sustainability in South African universities. Dinova (2019) underscores the significance of financial sustainability in long-term performance and uses a system of quantitative and qualitative indicators to assess it. Zietlow, (2012) provides a novel approach for evaluating the financial health of an organisation using the financial sustainability model. In order to help NGOs better manage their financial health and more confidently ensure their continued financial sustainability, three new financial indicators have been introduced.

MEASURES OF FINANCIAL SUSTAINABILITY

Considering the literature review, the most used financial metrics to measure financial sustainability are:

An attribute that denotes the ability to fulfil financial commitments as needed is liquidity. The efficient administration of working capital's two elements, current assets and current liabilities, is the focus of liquidity management. Money and other assets that are easily convertible into cash might be categorised as current assets. Bank overdrafts, trade creditors, bills payable, unpaid expenses, and other liabilities that mature for payment within a year are all considered current liabilities. Liquidity is essential to the company's very existence (Kk, 2014). According to Bowman (2011b), liquidity is defined as "cash or financial resources that are readily convertible into cash and are not subject to donor restrictions.". The second metric is the cash reserve ratio (Bowman, 2011a, 2011b) which is defined as "the number of months an organization could sustain its operations while incurring no further expenses."

Profitability**:** Profitability indicates the amount remaining after expenses are deducted and generally signifies the nonprofit organization's long-term viability. In this context, profitability is defined as the return on the company's total assets. The profitability ratios show how debt and liquidity affect asset management and operational outcomes (Al Omari, 2020). The profitability-representing variable typical of accounting-based nonprofit research is Return on Equity = after-tax profit divided by owner's equity. Return on equity is a crucial metric that investors use to evaluate a company's profitability. Return on equity (ROE) quantifies the effectiveness with which a business utilizes shareholder funds to generate profits and expand.

Financial Efficiency: Organisational efficiency pertains to the effectiveness of revenue generation and signifies the immediate viability of a nonprofit entity. The metric frequently employed to assess efficacy is Return on Assets.

Solvency: The amount of debt and other expenses incurred by the company in relation to the amount of owner equity invested in the business is a measure of solvency (Hanaffie Bin MD Yusoff, 2017). Solvency ratios show if a company can continue to operate as a profitable business in the face of financial difficulties and whether it can pay off all of its debts if all of its assets were sold. In order for a business to function, it must be solvent. A business is considered insolvent if it cannot pay its debts and must file for bankruptcy in order to liquidate or restructure. This study evaluates solvency using the ratio of total equity to total assets.

Revenue Diversification:

Revenue diversification is a concept that originates from Modern Portfolio Theory, as outlinedby Markowitz in 1952. This theory explains how investors choose certain investment portfolios. The process of portfolio selection entails a division between favorable high-anticipated returns and unfavorable deviation from expected returns (Markowitz, 1952). Whilethe nonprofit sector has its distinct ways of raising funds, it is still beneficial to diversify revenue sources as a wise strategy for generating income. This can help reduce the unpredictability of revenue portfolios managed by nonprofit organizations. According toTuckman and Chang (1991), a nonprofit organization with a greater number of income sources and a more evenly distributed allocation of earnings from each source tends to be more financially stable. Their findings indicate a favorable correlation between income diversification and financial health in nonprofit organizations. The study conducted by Greenlee & Trussel, (2000) indicates that a higher degree of income diversification decreases the probability of an organization reducing its program costs or incurring a net loss in assets for three consecutive years.

RESEARCH GAP

In the existing literature, discussions often revolve around various financial measures aimed at assessing the sustainability of organizations. However, there is a noticeable gap regarding explicit methodologies for definitively identifying whether an organization is sustainable. Previous studies that do address this issue tend to rely on complex financial metrics, which can pose challenges in practical application. Contrastingly, this study introduces a methodology that focuses on essential indicators that are straightforward to calculate, particularly beneficial in countries/regions like India where access to comprehensive financial data is limited and NPOs are hesitant to disclose detailed financial statements. The dearth of publicly accessible NPO financial data may contribute

to the paucity of evidence regarding the financial viability of NPOs in India. Internal Revenue Service (IRS) Form 990 data has been used in the majority of studies on the financial viability of non-profit organisations in the United States. Researchers can easily measure financial sustainability indices because of these data (Despard et al., 2017). Despite these data limitations, the goal of this study is to fill this gap in the literature. This approach also enables the classification of sustainability into distinct levels.

OBJECTIVES OF THE RESEARCH:

1. To analyze the Revenue Structure and Revenue Diversification Capacity of NPOs.
2. To analyze the liquidity, profitability, solvency, and financial efficiency performance of selected NPOs.
3. To develop a standardized methodology for evaluating the fiscal sustainability of NPOs.

DATA AND METHOD

The population for this study comprises non-profit organizations registered under the Indian Ministry of Corporate Affairs. These organizations must have been operational and maintained comprehensive financial records from 2019 to 2022. The study makes use of secondary data that is taken from annual reports of the twenty selected NPOs registered under the Indian Ministry of Corporate Affairs. A comprehensive list of eligible non-profit organizations was obtained from the website of the Ministry of Corporate Affairs. This list, serving as the sampling frame, consisted of 80 non-profit organizations. To ensure an unbiased and representative sample, a random sampling technique was employed. The process involved the following steps:

Assignment of Numbers: Each organization in the sampling frame was assigned a unique number from 1 to 80.

Random Selection: Twenty distinct numbers that corresponded to the organisations in the sampling frame were chosen using a random number generator. This guaranteed an equal probability of selection for every organisation.

The statement of financial position, profit and loss, and cash flow were extracted from the audited reports to evaluate the nonprofit organization's fiscal stability. The metrics employed to evaluate the financial well-being in the research were derived from data obtained from two distinct sources. The performance measurements employed by Ritchie & Kolodinsky, (2003), Zdanovskis & Pilvere, (2019), and Kangari, Farid, and Elgharib (1992) were incorporated into this research. Interviews with critical informants, including accounting professionals and financial management personnel, constituted the second source of data. The study's reference period spans a duration of

four years, specifically from the fiscal year 2019 to 2022. The financial stability of the organizations was evaluated using a weighted score methodology that was modified from some earlier scholarly research (Daryanto, 2019; Daryanto & Samidi, 2018; Masri, 2020)

TABLE 3 Measures used to assess Financial Sustainability

Financial Measure	Ratio	Formula	Source
Liquidity Performance	Current Ratio	Current Assets/Current Liabilities	(Kangari et al., 1992; Zdanovskis & Pilvere, 2019)
	Cash Ratio	Cash& Equivalents/Current Liabilities Cash	(Ritchie & Kolodinsky, 2003)
Financial Efficiency	Return on Assets	Net Income/Total Assets	(Ritchie & Kolodinsky, 2003)
Profitability Performance	Return on Net worth	Profit after tax/Net worth	(Kangari et al., 1992)
Solvency Performance	Total Equity to Total Assets	Net Worth/Total Assets	(Zdanovskis & Pilvere 2019)

FINANCIAL INDICATORS WITH WEIGHT SCORE:

TABLE 4 Financial Measures with their weight score

Indicators	Weight Score
Liquidity Performance	
Current Ratio	5
Cash Ratio	5
Profitability Performance	
Return on Networth	20
Financial Efficiency	
Return on Assets	10
Solvency	
Total Equity to Total Assets	10
Total	**50**

Source: (Daryanto, 2019; Daryanto & Samidi, 2018; Masri, 2020)

Note: The weight scores were chosen for NPO applicability.

TABLE 5 The Variables and Weight Score

Cash Ratio=x%	**Score**
x>=35	5
25<=x<35	4
15<=x<25	3
10<=x<15	2
5<=x<10	1
0<=x<5	0
Current Ratio=x%	**Score**
x<=125	5
110<=x<125	4
100<=x<110	3
95<=x<100	2
90<=x<95	1
x<90	0

TABLE 6 The Variables and Score and Weight

Return on Assets=x%	**Score**	**Return on Equity=x%**	**Score**
x<0	0		
0<=x<1	4	15<ROE	20
1<=x<2	6	13<x<=15	18
2<=x<3	7.25	11<x<=13	16
3<=x<4	10	9<x<=11	14
4<=x<5	9	7<x<=9	12
5<=x<6	8.5	6<x<=7	10
6<=x<7	8	5<x<=6	8.5

7<=x<8	7.5	4<x<=5	7
8<=x<9	7	2<x<=4	5.5
9<=x<10	6.5	1<x<=0	4
		0<x<=1	2
		ROE<0	0

The level of financial sustainability assessment is divided into:

1. Sustainability Enhanced (the highest level)

(a) Exceptional (if the total score is more than 95 points)

(b) Outstanding (if the total score is more than 80 and less than 95)

(c) Strong (if the total score is more than 65 and less than 80)

2. Sustainability Evolving (the middle level)

(a) Satisfactory (if it is more than 50 and less than 65)

(b) Advancing (if it is more than 40 and less than 50)

(c) Improving (if it is more than 30 and less than 40)

3. Sustainability Impeded (the lowest level)

(a) Concerning (if it is more than 20 and less than 30)

(b) Limited (if it is more than 10 and less than 20)

(c) Critical (if it is less than 10)

RESULTS:

5.1 This section analyses the Total Revenue of 20 organizations and the revenue diversification capacity of 20 organizations from 2019 to 2022.

Total Revenue: Overall, the total revenue of NGOs from 2019 to 2022 decreased by 6.16 percent. This decline reflects the effect of the global epidemic and the economic downturn on the non-profit sector (Finchum-Mason et al., 2020). A higher total revenue is indicative of better financial health for the organization, indicating financial strength, with ratings categorized as above average (good)

or below average (poor)(Omondi-Ochieng, 2018).

TABLE 7 Total Revenue Results-2019-2022

Series	2019	2020	2021	2022	Increase/Decrease			Above/ Below Average
					2019-2020	2020-2021	2021-2022	
1	3687588	3098543	2519400	2537800	Decrease	Decrease	Increase	Below
2	12670341	11623304	9561700	9716200	Decrease	Decrease	Increase	Above
3	7676572	6464634	5535321	3319112	Decrease	Decrease	Decrease	Above
4	129250	26622	24120	15768	Decrease	Decrease	Decrease	Below
5	96597366	61587994	33062481	30394880	Decrease	Decrease	Decrease	Above
6	1794329	2064514	1640225	1562048	Increase	Decrease	Decrease	Below
7	1357364	1407473	1232700	1171200	Increase	Decrease	Decrease	Below
8	9686	10786	8800	3600	Increase	Decrease	Decrease	Below
9	206498	206498	133185	109808	No change	Decrease	Decrease	Below
10	451801	445547	145493	569350	Decrease	Decrease	Decrease	Below
11	0	636950	18710	1300000	Increase	Increase	Increase	Below
12	6932871	7190605	7654124	1337926	Increase	Increase	Decrease	Above
13	1618675	1925256	1857726	2547133	Increase	Decrease	Increase	Below
14	7267311	6524491	7165722	6026801	Decrease	Increase	Decrease	Above
15	77197	71919	60283	59036	Decrease	Decrease	Decrease	Below
16	1468106	1898138	1710495	1690040	Increase	Decrease	Decrease	Below
17	557318	574464	188347	245671	Increase	Decrease	Increase	Below
18	800000	700000	700000	700000	Decrease	No change	No change	Below
19	4263000	4279000	3244000	4086000	Increase	Decrease	Increase	Above
20	38000	33000	43900	119777	Decrease	Increase	Increase	Below
Mean	7401339	5536837	3877876	3349987				

Source: Annual Report

The overall financial landscape for these series from 2019 to 2022 is marked by a general decline in revenue, with some series showing resilience or recovery in later years. The classification into above or below-average revenue largely remained consistent, suggesting structural differences in financial stability among the series. Future strategies should consider the factors contributing to the declines and the few cases of revenue recovery to enhance financial sustainability across the board.

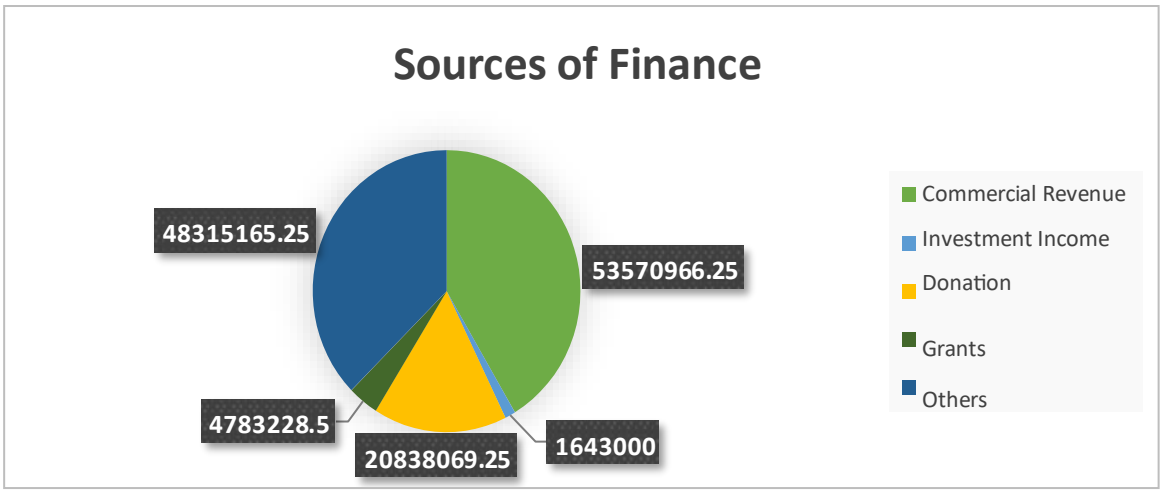

FIGURE 1 Sources of Finance

Source: Annual Report

The Hirschman-Herfindahl Index (HHI) is the prevailing method for quantifying income diversification/concentration (D. Carroll, 2005; Hendrick, 2002; Tuckman & Chang, 1991). Considering the existing body of work, we also assess revenue diversification using the Herfindahl-Hirschman Index (HHI). Sum the squares of each income source's percentage share of each organization's total revenue to create an index. This offers a metric to assess the concentration of revenue, taking into account both the quantity of income sources and the degree of income distribution. The index we use incorporates five distinct revenue sources: Commercial Revenue/Earned income, Investment income, Donative income, Grants, and miscellaneous sources. This methodology generates a diversity score that spans from 0 to 1, which is determined by the degree to which an organization's income is equally distributed among certain categories. A charitable organization that relies on a single source of money would have a concentration index of one, indicating a high level of dependence. Conversely, a company that generates equivalent incomes from several sources will have an index near zero, indicating a low level of dependence. Non-profit organizations with a revenue concentration index closest to one are at a high risk of financial (D. A. Carroll & Stater, 2009; Tuckman & Chang, 1991). Stated differently, this metric suggests that greater values of HHI correspond to lesser degrees of variety across nonprofit income models, and viceversa.

TABLE 8 HHI Value Interpretation

HHI VALUE	INTERPRETATION
HHI Value of 0	• Indicates perfect revenue diversification, with the NGO having an equal share of revenue from all sources. · Unlikely in practice, but this theoretical scenario represents maximum diversification
HHI Value Close to 0	• Suggest a highly diversified revenue base. The NGO receives revenue from a broad range of sources with relatively equal contributions.
HHI Value Between 0.1 and 0.25	• Suggests some concentration in revenue sources.The NGO may rely more on specific funding streams, but there is still a reasonable degree of diversification.
HHI Value Above 0.25	• Indicates higher concentration.The NGO may have a notable dependence on a few key funding sources, potentially posing a risk if those sources are disrupted.
HHI Value Approaching 1	• Represents high concentration.• The NGO is heavily reliant on one or a few sources,posing a significant risk if those sources are lost or reduced.
HHI Value of 1	• Indicates perfect concentration.

Source: Author

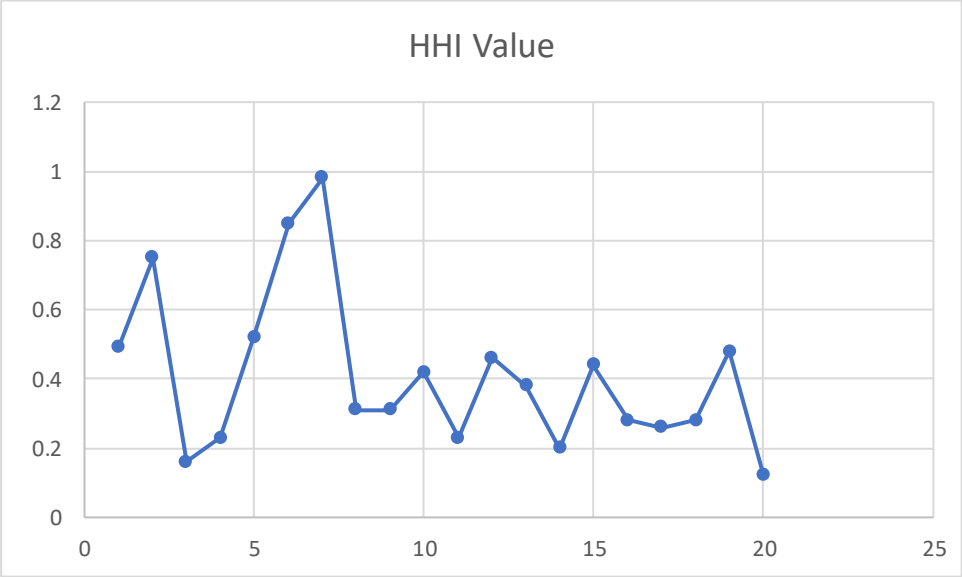

FIGURE 2 HHI value of nonprofit organizations

Source: Annual Report

The dataset includes nonprofit organizations with HHI values ranging from 0.12 to 0.98. The mean HHI value is 0.41. The mean score suggests that, on average, the non-profit organizations in the sample show a significant concentration level in their funding sources. These organizations are relying on a small number of crucial funding sources, leading to a substantial increase in their total earnings. NPOs who have a high degree of concentration should assess their present funding sources and consider investigating strategic planning possibilities. This may include expanding the range of financing sources, reducing the risks associated with reliance on particular donors, and strengthening overall financial robustness.

5.2 To analyse the liquidity, profitability, solvency, and financial efficiency performance of selected NPOs.

LIQUIDITY PERFORMANCE:

Current ratio and cash ratio are primarily used to assess liquidity performance. A liquidity ratio indicates an organization's financial soundness and capacity to pay obligations (Zdanovskis & Pilvere, 2019). A higher liquidity ratio is indicative of better financial health for the organization, indicating financial strength, with ratings categorized as strong, moderate, low, and volatile performers.

TABLE 9 Liquidity Performance Results, 2019-2022

	Current Ratio				Cash Ratio				Interpretation
	2022	2021	2020	2019	2022	2021	2020	2019	
1	4.25	3.82	3.22	3.37	3.18	2.83	2.45	2.49	Strong
2	9.80	13.05	12.26	12.35	19.61	20.32	1.66	1.02	Strong

13	12	11	10	9	8	7	6	5	4	3
2.82	0.69	0.88	0	5.63	0	0.78	3.05	1.55	1.24	0.79
2.76	0.69	0.83	0.46	5.24	0.15	0.77	1.80	1.46	1.26	0.80
9.68	0.82	1.15	0.13	4.96	0.14	3.49	1.52	1.77	1.27	0.79
8.11	0.72	1.15	0.20	4.94	0.20	11.87	3.03	1.37	1.09	0.78
1.02	0.44	5.85	0	0.05	0	0.72	1.74	0.92	0.32	0.01
2.47	0.48	0.83	0.46	0.31	0.15	0.63	0.59	0.08	0.31	0.02
9.50	0.82	1.15	0.13	0.06	0.14	0.64	0.33	0.88	0.30	0.01
7.34	0.72	1.15	0.20	0.04	0.20	2.90	1.26	0.85	0.10	0.01
Moderate	Low	Strong	Low	Volatile	Low	Low	Strong	Moderate	Moderate	Low

14	0.22	0.39	0.38	0.35	0.22	0.37	0.38	0.33	Low
15	3.23	2.13	7.37	2.23	3.23	2.13	7.37	22.5	Strong
16	2.56	2.10	1.19	2.36	2.15	1.76	1.29	1.09	Moderate
17	0.062	0.06	0.10	0.17	0.06	0.06	0.05	0.17	Low
18	3.99	4.39	4.47	4.42	2.2	2.2	2.2	2.4	Strong
19	10.38	12.34	12.61	7.35	10.05	11.96	12.19	7.10	Strong
20	0.68	0.67	0.04	0.46	0.68	0.67	0.04	0.46	Volatile

Source: Annual Report

PROFITABILITY PERFORMANCE

Profitability is a measure of how efficiently a company performs, indicating the amount of profit generated from the assets that have been invested. According to Zdanovskis and Pilvere (2019), it is possible to modify the calculating algorithms. NGOs are not driven by profit-making objectives, however they are allowed to engage in economic activities, including generating profit to pay expenses associated with their core operations, project execution, and so on. NGOs must maintain a profitable operation to accumulatesurplus money, which may be used to cover unforeseen expenses or variations in revenue. The research quantifies profitability by computing Return on net worth. The RoNW data provides valuable insights into the financial performance and sustainability of the NGOs. While some NGOs demonstrate strong profitability and efficient use of their equity, others face significant challenges, indicating a need for strategic improvements. The overall trend suggests a mixed financial landscape, with

a recent tendency towards losses, highlighting the importance of robust financial management in the nonprofit sector.

TABLE 10 Profitability Performance Results, 2019-2022

Organization Series	Return on Net worth			
	2022	2021	2020	2019
1	6.917873	0.267943	0.060647	0.573262
2	7.098542	7.595265	10.67262	11.63672
3	0	0	9.163009	42.56667
4	0	0	0	0
5	16.58336	0	0	0
6	11.33902	9.17137	14.53796	10.43873
7	31.13034	38.32826	25.40006	65.83271
8	26.9	0	0	0.728948
9	1.029947	0	0	0
10	43.28572	1.103107	3.530647	2.660712
11	0	0	0	0
12	0	0	10.91482	38.89791
13	-154.961	-54.6049	-7.20186	-1.54665
14	-121.576	-5.71292	-14.8326	-52.2443
15	-21.144	0	0	-34.1012
16	-1.9697	-0.25037	1.860451	-3.78333
17	0.697894	1.355985	0.132457	1.401296
18	-5.34	-0.54	-0.53	0.33
19	5.78	-0.06	5.21	7.24
20	-4.22508	-	58.92585	-61.8267

		133.028		
Mean	-9.13312	-6.81872	5.892205	1.44024
Maximum	43.28572	38.32826	58.92585	65.83271
Minimum	-154.961	-133.028	-14.8326	-61.8267

Source: Annual Report

FINANCIAL EFFICIENCY.

Financial efficiency focuses on reducing financial inefficiencies by optimizing the allocation and use of financial resources. Financial efficiency refers to an organization's capacity to achieve desired financial outcomes while minimizing financial expenses. It may be assessed by cost-benefit ratios, such as comparing revenues to expenditure, to provide cost-effective programs and services. A Nonprofit Organization may achieve cost, time, and resource savings by using financial efficiency measures. This study examines nonprofits' financial efficiency from 2019 to 2022 using Return on Assets and Total Equity to Total Asset ratios.

The Return on Assets (ROA), usually referred to as the asset utilization ratio, is a metric that is commonly used to assess the efficiency of an organization in generating income or profits from its assets. The ratio facilitates the assessment of the organization's ability to effectively transform its investments in assets into revenues or profits, which is valuable for managers and stakeholders.

TABLE 11 Return on Asset Ratio Results, 2019-2022

Organization	Return on Assets			
Series	2022	2021	2020	2019
1	1.091817	0.054233	0.007693	4.941446
2	4.323781	4.315562	5.71424	5.778184
3	-1.62134	-1.45868	0.080684	0.295893
4	-0.76347	-0.44369	-13.8445	-1.42873
5	5.496194	-5.31519	4.62334	0
6	9.376609	7.648786	12.17067	8.741774
7	5.935313	4.107643	3.277944	1.273872
8	-2.69	-0.23256	-1.15214	0.660036
9	1.029767	-1.07209	0.320067	-3.10735

10	28.62899	0.580231	1.846293	1.367619
11	9.98	-14.8878	-12.9482	-18.65
12	-5.14075	-16.916	2.918884	11.25937
13	-27.804	-17.7027	-2.64249	-1.53318
14	-22.585	-2.16631	-5.83626	1.181118
15	0	0	0	0
16	-1.93702	-0.24559	1.825014	-3.04701
17	0.602144	1.166551	0.11619	1.226362
18	-5.55556	0	0	0
19	41.60866	-0.23691	0.032762	0.05327
20	1.977683	63.89736	-14.0286	0.724114
Mean	2.097693	1.054645	-0.87592	0.486839
Maximum	41.60866	63.89736	12.17067	11.25937
Minimum	-27.804	-17.7027	-14.0286	-18.65

Source: Annual Report

ROA values vary significantly from year to year for each entity. Some entities experience positive and substantial ROA, while others have negative or lower ROA. The mean ROA for all entities indicates an overall declining trend over the four years. Negative ROA values suggest that some entities might be experiencing challenges in generating profits relative to their total assets.

***SOLVENCY**:*

The Total Equity to Total Asset Ratio is a financial measure that evaluates the relationship between a company's total equity and its total assets. It offers valuable information on the financial organization and ability to pay the debts of a business.

TABLE 12 Total Equity to Total Asset Ratio, 2019-2022

Organization Series	**Total Equity to Total Asset Ratio**			
	2022	**2021**	**2020**	**2019**
1	15.78256	20.24051	12.68458	11.80466
2	60.91083	56.81911	53.54111	49.65473
3	-2.24	-0.31544	0.880546	0.695128
4	19.62524	20.6021	21.39001	8.838142
5	37.94963	31.16875	29.1542	25.03782

6	82.69322	83.39842	83.71644	83.74355
7	19.84336	10.8137	5.339607	2.50342
8	100	90.46512	90.43744	90.54636
9	99.98256	99.98128	99.98025	99.98013
10	66.13957	52.55672	52.27983	51.3822
11	99.74494	-32.1832	-14.3621	-1.25184
12	3.148469	9.067047	26.74238	28.94582
13	17.94261	57.82643	65.06593	99.12935
14	18.57687	37.91945	39.34759	45.90457
15	96.91055	95.31509	86.43962	95.56891
16	98.19511	98.08977	98.09444	80.53777
17	86.28013	86.02802	87.71953	87.51625
18	90.74074	89.47368	89.47368	91.22807
19	72.26295	74.2787	74.72625	73.23725
20	-46.5935	-48.0262	-23.8	-11.7
Mean	51.89479	46.67596	48.94257	50.66512
Maximum	100	99.98128	99.98013	99.98013
Minimum	-46.5935	-48.0262	-23.8	-11.7

Source: Annual Report

The mean ratio trends downwards over the years, indicating a potential shift towards lower equity-to-asset ratios on average. A high ratio may suggest a financially stable entity with a strong equity position. A negative ratio may indicate potential financial distress or an unbalanced financial structure.

ASSESSMENT OF FINANCIAL HEALTH OF NON-PROFIT ORGANIZATIONS

WEIGHTED AVERAGE SCORE:

TABLE 13 Weighted Average Score of Organizations

Organization series	**2022**	**2021**	**2020**	**2019**
1	30.5	23.25	22	27
2	33	35	36.5	36.5
3	0	0	20	28
4	14	16.25	16.25	8

5	48.5	16	26.25	17.25
6	37.5	36.5	40.5	38
7	39.5	40	46	40
8	26.5	9.5	8.5	15.5
9	16.5	15.5	16.5	11.5
10	34.5	14.5	19.5	19.5
11	9	16.5	16.5	16.5
12	9	9	33.5	38.75
13	16	18.5	18	16.5
14	9	15	15	19
15	20.5	24.5	25	20.5
16	16.5	16.5	26.5	17.5
17	18	22	18	22
18	12.5	17	16	20.5
19	35	17.5	30	33.5
20	5	5	11	12

From 2019 to 2022, the financial sustainability of the analyzed non-profit organizations showed signs of improvement. Out of the 20 organizations assessed, six were categorized as having "Sustainability Evolving." The mean sustainability score for these organizations was 42.9625. The lowest score recorded was 16.5, while the highest score reached 82.75.

TABLE 14 Level of Financial Sustainability Assessment of NPO

Level of Financial Sustainability Assessment	Number of Organizations
Exceptional	0
Outstanding	1
Strong	2
Satisfactory	3
Advancing	3
Improving	6
Concerning	4
Limited	1
Critical	0

DISCUSSIONS OF MANAGERIAL AND POLICY IMPLICATIONS

This study evaluated the financial well-being of nonprofit organizations by analysing indices of liquidity, profitability, solvency, and financial efficiency for the time frame of 2019-2022. The assessment of the overall fiscal well-being of nonprofit organizations from 2019 to 2022 reveals that six out of twenty organizations have demonstrated improved financial sustainability. An examination of the overall income patterns across NPOs from 2019 to 2022 indicates a significant decrease of 6.16 percent. The decrease in income highlights the impact of external causes, namely the worldwide pandemic and the resulting economic decline, on the non-profit industry (Finchum-Mason et al., 2020). The observed decline in overall income indicates an urgent need for the sector to adjust and innovate to respond to the ever-changing external conditions, guaranteeing resilience and ongoing efficiency in the pursuit of their objectives (Omondi-Ochieng, 2018). As of 2022, NPOs exhibited a significant reliance on one or two funding sources, rendering them very vulnerable to default, insolvency, and potential cancellations of services and programs (Srivastava & Tandon, 2005). The primary goal of non-profit organizations (NPOs) is to efficiently oversee their financial assets to maintain their operations and attain financial self-sufficiency, by pursuing revenue generation while minimizing costs.

The liquidity performance was examined from two angles, evaluating the NPO's ability to fulfill short-term commitments and preserve financial adaptability. This analysis explored the current ratio and cash ratio, which are both important indications of the organization's capacity to handle urgent financial requirements. The current ratio, which measures the proportion of current assets to current liabilities, offers valuable information about the NPO's financial status.

CONCLUSION

Evaluating the financial well-being of NPOs is a vital component of their management, especially in the multifaceted and ever-changing environment of India. The main aim of this study is to suggest a methodology to assess the financial sustainability of non-profit organizations (NPOs) in India, focusing specifically on key criteria such as liquidity, solvency, efficiency, and profitability. For NPOs to successfully navigate the constantly shifting financial landscape, it is crucial to have sufficient liquidity, which refers to the capacity to fulfill short-term financial commitments. Effective liquidity management guarantees that NPOs can rapidly address growing requirements. The long-term sustainability of an organization is crucial for continued impact, which is measured by its solvency. Ensuring a harmonious equilibrium

between immediate cash availability and enduring financial stability becomes crucial for maintaining a sound fiscal condition. Efficiency, which quantifies the utilization of resources, encompasses the principles of financial restraint and operational oversight. NPOs must efficiently manage their working capital and simplify their operations to maximize efficiency. The importance of profitability, which is frequently disregarded in the nonprofit industry, cannot be overstated as it is crucial for guaranteeing long-term financial viability. Generating excess profits enables the expansion and diversity of programs, thus increasing the total influence on the community.

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