

Financial Volatility Paradox in Philanthropic Organizations: Evidence from Indonesian Religious and Secular Nonprofits



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Abstract

This study examines the relationship between revenue concentration and financial volatility in philanthropic organizations, challenging the conventional assumption that diversification leads to greater stability. Using longitudinal data from 10 Indonesian philanthropic organizations registered with Perhimpunan Filantropi Indonesia over a 10-year period (2015-2024), this research compares income volatility patterns between religious-based and secular nonprofits. The findings reveal a counterintuitive paradox: religious organizations with concentrated revenue sources (zakat, infaq, and sadaqah) demonstrate significantly lower volatility (16.4%) compared to secular organizations with more diversified funding (53.4%). Mann-Whitney U test confirms this difference is statistically significant ($U = 2.000$, $Z = -2.193$, $p = 0.028$). This study introduces the concept of 'normative income stability' where religious obligations create a baseline donation pattern that is more stable than voluntary giving, thereby extending Financial Vulnerability Theory by proposing that the nature of income source moderates the diversification-stability relationship. The implications suggest that nonprofit financial management strategies should consider institutional characteristics rather than pursuing universal diversification.

Keywords: Financial Volatility, Nonprofit Accounting, Revenue Diversification, Islamic Philanthropy, Resource Dependence Theory

INTRODUCTION

Financial sustainability remains a critical challenge for nonprofit organizations worldwide. The conventional wisdom in nonprofit financial management, largely derived from Financial Vulnerability Theory (Calabrese, 2012) and portfolio theory applications, suggests that revenue diversification leads to greater financial stability (Carroll & Stater, 2009). This assumption has guided organizational strategies and policy recommendations, encouraging nonprofits to diversify their funding sources to reduce vulnerability to external shocks.

However, emerging evidence from various contexts suggests that this relationship may be more nuanced than previously understood. (Lu et al., 2019) found that diversification has a small effect on financial vulnerability and, surprisingly, a slightly negative impact on financial capacity. Similarly, (Qu, 2019) demonstrated that the effectiveness of diversification strategies varies significantly across organizational types and institutional contexts. These findings call for a more contextualized understanding of the diversification-stability relationship in nonprofit finance.

Indonesia presents a particularly interesting case for examining this relationship. As one of the world's most generous nations according to the Charities Aid Foundation (2018), Indonesia hosts a vibrant philanthropic sector comprising both religious-based organizations (primarily Islamic zakat institutions) and secular nonprofits. The fundamental difference in their revenue structures religious organizations relying heavily on obligatory religious giving while secular organizations depend on voluntary donations provides a natural experiment for testing the boundaries of conventional financial theory.

This study addresses a significant gap in the literature by examining whether revenue concentration necessarily leads to higher financial volatility. Specifically, we investigate the counterintuitive possibility that organizations with concentrated revenue sources may exhibit lower volatility when those sources are rooted in normative religious obligations rather than discretionary giving. Our research question is: Does the nature of income source moderate the relationship between revenue concentration and financial volatility in philanthropic organizations?

Using longitudinal data from 10 Indonesian philanthropic organizations over a 10-year period (2015-2024), we compare volatility patterns between religious-based and secular nonprofits. Our findings reveal what we term the 'Financial Volatility Paradox': religious organizations with concentrated revenue demonstrate significantly lower volatility than secular organizations with more diversified funding. This paradox challenges fundamental assumptions in nonprofit financial theory and has important implications for organizational strategy and policy.

REVIEW OF LITERATURE

Theoretical Framework and Hypothesis Development

1. Financial Vulnerability Theory and Revenue Diversification

Financial Vulnerability Theory, as articulated by (Calabrese, 2012), posits that nonprofit organizations' financial health is determined by their revenue structure, liquidity position, and administrative efficiency. A central tenet of this theory is that organizations dependent on concentrated revenue sources are more vulnerable to external shocks. This

perspective aligns with modern portfolio theory's diversification principle, suggesting that spreading financial risks across multiple sources reduces overall organizational vulnerability.

(Carroll & Stater, 2009) provided empirical support for this proposition, finding that revenue diversification reduces volatility among American nonprofits. Their influential study established the prevailing paradigm that guides nonprofit financial management: diversify to survive. However, their analysis primarily focused on secular organizations in developed country contexts, potentially limiting the generalizability of their findings.

2. Resource Dependence Theory and Institutional Context

Resource Dependence Theory (RDT), developed by (Pfeffer & Salancik, 2015) and extended by (Hillman et al., 2009), provides a framework for understanding how organizational behavior is shaped by dependence on external resources. The theory suggests that organizations will adopt strategies to manage and reduce dependencies that create uncertainty. However, RDT also recognizes that not all dependencies are equally problematic the stability and predictability of resource flows matter as much as their concentration.

(Hillman et al., 2009) emphasized that RDT applications to nonprofit organizations must consider unique sectoral characteristics, including dependence on voluntary contributions that do not create ownership claims, multiple stakeholders with potentially conflicting interests, and the importance of social and moral legitimacy in resource mobilization. These considerations suggest that the relationship between revenue concentration and organizational vulnerability may differ based on the institutional characteristics of revenue sources.

3. Institutional Logics and Legitimacy in Religious Organizations

Institutional Theory (DiMaggio & Powell, 1983; Meyer & Rowan, 1977) and the institutional logics perspective (Thornton et al., 2015) provide additional insights into how organizational context shapes financial patterns. Religious organizations operate under different institutional logics than secular nonprofits. (Paarlberg & Gen, 2009) identified that religious logic emphasizes obedience to religious teachings, service as worship, and accountability to God, while professional logic emphasizes efficiency, evidence-based practice, and accountability to donors.

(Suddaby et al., 2017) distinguished between moral legitimacy (alignment with moral norms), pragmatic legitimacy (perceived benefits), and cognitive legitimacy (taken-for-grantedness). Religious organizations derive legitimacy primarily from moral sources rooted in religious authority, which tends to be more stable than pragmatic legitimacy that secular organizations must continuously cultivate through demonstrating effectiveness and transparency.

4. The Normative Income Stability Hypothesis

Building on donor motivation research (Bekkers & Wiepking, 2011), we propose that the nature of income source fundamentally affects its stability characteristics. Religious giving, particularly in Islamic contexts where zakat is a religious obligation (*one of the five pillars of Islam*), is driven by normative mechanisms donors give because religious doctrine requires them to, not primarily because of situational factors or organizational appeals. This

creates what we term 'normative income stability' a baseline level of giving that is relatively insensitive to economic fluctuations or organizational performance.

In contrast, secular giving is predominantly voluntary and discretionary, driven by mechanisms such as perceived efficacy, reputation concerns, and emotional responses to appeals (Bekkers & Wiepking, 2011). These mechanisms make giving more sensitive to economic conditions, competing appeals, and organizational communication effectiveness all sources of potential volatility.

This theoretical reasoning leads to our central hypothesis:

H1: Religious-based philanthropic organizations exhibit lower income volatility than secular philanthropic organizations, despite higher revenue concentration.

RESEARCH METHOD

This study employs a longitudinal comparative design using secondary data from annual financial reports of philanthropic organizations registered with Perhimpunan Filantropi Indonesia (PFI), the national philanthropy association. The sample comprises 10 organizations: 5 religious-based (Laznas Al Azhar, Yayasan Dompot Dhuafa Republika, Bamuis BNI, Yayasan Mizan Amanah, and Rumah Yatim Arrohman) and 5 secular organizations (Yayasan Ekotourisme Indonesia, Yayasan Arsitek 86 Peduli, Yayasan Karya Salemba Empat, Tahija Foundation, and Yayasan Human Initiative).

The study period spans 2015-2024, providing 10 years of annual donation income data per organization, yielding 100 organization-year observations. This period was selected because it encompasses the pre-pandemic era, the COVID-19 pandemic, and the post-pandemic recovery allowing examination of volatility patterns across different economic conditions.

Variable Measurement

The dependent variable is income volatility, measured as the standard deviation of annual growth rates over the 10-year period for each organization. Growth rate is calculated as: $\text{Growth Rate} = (\text{Income}(t) - \text{Income}(t-1)) / \text{Income}(t-1)$. Volatility is then computed as the standard deviation of these growth rates across years 2016-2024 (9 growth rate observations per organization).

The independent variable is organizational type (*religious-based vs. secular*), operationalized as a binary categorical variable. Religious-based organizations are defined as those whose primary funding comes from religious giving instruments (zakat, infaq, sadaqah) and whose organizational mission explicitly references religious objectives. Secular organizations are those without explicit religious affiliation in their funding sources or mission statements.

Analytical Approach

Given the small sample size ($n=10$), non-parametric statistical methods are employed. The Shapiro-Wilk test is used to assess normality of distributions. The Mann-Whitney U test is the primary hypothesis testing method, appropriate for comparing two independent groups when assumptions of parametric tests may not be met. Effect size is calculated using the formula $r = Z / \sqrt{N}$, following (Cohen, 2013) conventions for interpretation (small: $r = 0.1$, medium: $r = 0.3$, large: $r = 0.5$).

RESULTS AND DISCUSSION

Descriptive Statistics

Table 1 presents the income volatility measures for each organization in the sample. The data reveal a striking pattern: all five religious organizations exhibit volatility below 30%, while four of five secular organizations show volatility exceeding 30%, with one (Yayasan Ekotourisme Indonesia) displaying extreme volatility of 130.7%.

Table 1.
Income Volatility by Organization (2016-2024)

No	Organization	Type	Volatility
1	Laznas Al Azhar	Religious	28.2%
2	Yayasan Dompot Dhuafa Republika	Religious	9.8%
3	Bamuis BNI	Religious	10.9%
4	Yayasan Mizan Amanah	Religious	12.7%
5	Rumah Yatim Arrohman	Religious	20.2%
6	Yayasan Ekotourisme Indonesia	Secular	130.7%
7	Yayasan Arsitek 86 Peduli	Secular	55.5%
8	Yayasan Karya Salemba Empat	Secular	32.4%
9	Tahija Foundation	Secular	35.1%
10	Yayasan Human Initiative	Secular	13.4%

Source: Author's calculation based on financial reports (2015-2024)

Table 2 presents summary statistics comparing the two groups. Religious organizations demonstrate a mean volatility of 16.4% compared to 53.4% for secular organizations a difference of more than three-fold. The median values (12.7% vs. 35.1%) and ranges (18.4% vs. 117.3%) further confirm this substantial difference.

Table 2.
Descriptive Statistics of Income Volatility by Group

Indicator	Religious	Secular
N	5	5
Mean	16.4%	53.4%
Median	12.7%	35.1%
Std. Deviation	7.7%	45.7%
Minimum	9.8%	13.4%
Maximum	28.2%	130.7%
Range	18.4%	117.3%

Source: Author's calculation (2025)

Hypothesis Testing

The Mann-Whitney U test was employed to determine whether the observed difference in volatility between the two groups is statistically significant. Table 3 presents the results of this analysis.

Table 3.
Mann-Whitney U Test Results

Statistic	Value
Mann-Whitney U	2.000
Wilcoxon W	17.000
Z	-2.193
Asymp. Sig. (2-tailed)	0.028
Exact Sig. (2-tailed)	0.032
Effect Size ($r = Z/\sqrt{N}$)	0.693 (large)

Source: SPSS Output (2025)

The results demonstrate a statistically significant difference in income volatility between religious and secular organizations ($U = 2.000$, $Z = -2.193$, $p = 0.028$). The mean rank for religious organizations (3.4) is substantially lower than for secular organizations (7.6), confirming that religious organizations exhibit lower volatility. The effect size ($r = 0.693$) indicates a large effect according to Cohen's (1988) conventions, suggesting that this finding has substantial practical significance. Therefore, Hypothesis 1 is supported.

The Financial Volatility Paradox Explained

Our findings reveal what we term the 'Financial Volatility Paradox' religious organizations with concentrated revenue sources demonstrate significantly lower volatility than secular organizations with more diversified funding. This finding challenges the fundamental assumption of Financial Vulnerability Theory that revenue concentration inherently increases organizational vulnerability.

The paradox can be explained through the concept of 'normative income stability.' In Islamic philanthropic organizations, the primary revenue sources (zakat, infaq, sadaqah) are driven by religious obligations rather than discretionary choices. Zakat, in particular, is one of the five pillars of Islam and is obligatory for Muslims who meet certain wealth thresholds. This creates a 'baseline' of giving that is relatively insensitive to economic fluctuations, organizational performance, or competing appeals. Donors give because their faith requires it, creating predictable and stable revenue streams.

In contrast, secular organizations rely predominantly on voluntary, discretionary giving. Following (Bekkers & Wiepking, 2011) framework, such giving is driven by mechanisms including perceived efficacy, reputation, and emotional responses all of which are subject to situational variation. When donors have multiple competing options and no normative obligation to any particular organization, their giving patterns become more volatile and responsive to external factors.

Theoretical Implications

This study makes several contributions to nonprofit financial theory. First, we extend Financial Vulnerability Theory by introducing the 'nature of income source' as a moderating variable in the diversification-stability relationship. Our findings suggest that (Calabrese, 2012) framework requires modification to account for the institutional characteristics of revenue sources. Specifically, we propose that normative income sources (driven by religious or other obligatory motivations) may provide stability benefits that offset the theoretical risks of revenue concentration.

Second, we contribute to Resource Dependence Theory applications in nonprofit contexts. (Hillman et al., 2009) emphasized that RDT must consider unique sectoral characteristics, but existing applications have not adequately distinguished between different types of donor relationships. Our findings suggest that dependence on normatively-obligated donors represents a qualitatively different resource relationship than dependence on discretionary donors, with important implications for organizational vulnerability.

Third, we provide empirical support for the relevance of institutional logics in shaping financial outcomes. The religious logic that governs faith-based organizations creates fundamentally different donor motivations and behaviors than the professional logic of secular nonprofits, with measurable consequences for financial stability.

Practical Implications

For nonprofit practitioners, our findings suggest that diversification strategies should be context-specific rather than universal. Organizations with access to normative giving sources may benefit more from deepening engagement with their existing donor base than from pursuing diversification. For secular organizations facing higher inherent volatility, our findings underscore the importance of developing donor loyalty programs, recurring giving mechanisms, and financial reserves to buffer against income fluctuations.

For policymakers and regulators, these findings suggest that differentiated regulatory approaches may be appropriate for religious and secular philanthropic organizations, given their fundamentally different financial characteristics. One-size-fits-all regulations may not adequately serve a heterogeneous nonprofit sector.

Limitations and Future Research

Several limitations should be noted. First, our sample size of 10 organizations, while appropriate for the non-parametric methods employed, limits statistical power and generalizability. Future research should replicate these findings with larger samples. Second, our study is limited to Indonesian organizations; cross-national research could test whether the normative income stability hypothesis holds across different religious and cultural contexts. Third, we focused on income volatility as a single dimension of financial vulnerability; future research should examine how income source characteristics affect other dimensions such as liquidity, solvency, and organizational resilience.

CONCLUSION

This study documents a Financial Volatility Paradox in which religious philanthropic organizations with concentrated revenue sources demonstrate significantly lower income volatility than secular organizations with more diversified funding. Using longitudinal data from 10 Indonesian philanthropic organizations over 2015-2024, we find that religious organizations exhibit mean volatility of 16.4% compared to 53.4% for secular organizations

a statistically significant difference with large effect size ($U = 2.000$, $Z = -2.193$, $p = 0.028$, $r = 0.693$).

We explain this paradox through the concept of 'normative income stability,' arguing that religious obligations create baseline giving patterns that are more stable than discretionary voluntary giving. This finding extends Financial Vulnerability Theory by proposing that the nature of income source moderates the diversification-stability relationship. For nonprofit practitioners and policymakers, our findings suggest that financial management strategies and regulatory frameworks should consider institutional characteristics rather than pursuing universal approaches.

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