

# Survivability of charitable organisations – What factors influence whether a charity survives?

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## Background and Motivation

- The UK has 170,000+ active registered charities, vital to civil society.
- Many face sustainability challenges: financial pressures, regulatory changes, and donor expectations.
- Research gap:** Most survival studies use US data or small samples; little is known about UK-wide patterns.
- Motivation:** To build an evidence-based framework for predicting charity survival and identify factors and supporting strategic, regulatory, and funding decisions.

## Data and Methods

- Dataset:** Charity Commission Register of Charities (England and Wales) dataset 392,350 charities (1960–2024), 8+ million records, 13 linked administrative tables.

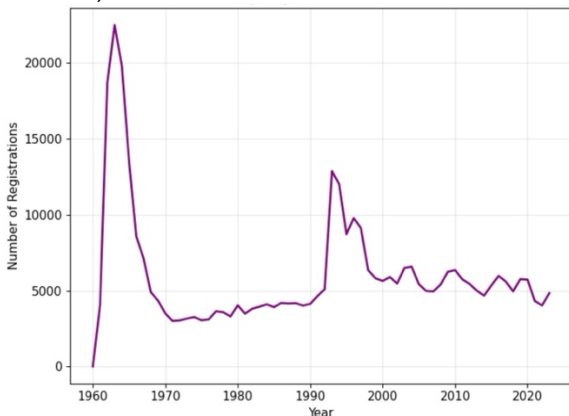


Figure 1. Charity Registration Trends

- Features:** 15 engineered predictors across six domains:

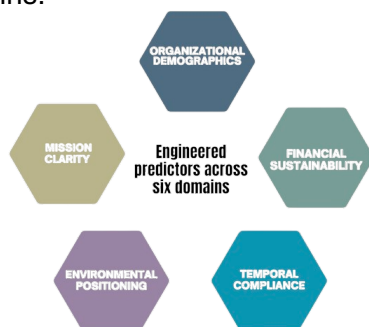


Figure 2. Six domains for feature selection

- Model:** Logistic regression
- Validation:** 5-fold stratified cross-validation, comparison with Random Forest & regularized regression.

## Key Findings

### Model Performance:

- Accuracy: 81.6% | Recall: 99.0% | AUC: 0.819
- Stable across folds (0.820 ± 0.002).

### Performance Breakdown:

- Correct survival predictions: (77.9%)
- Correct failure predictions: (3.6%)
- False alarms: (17.6%)
- Missed failures: (0.8%)

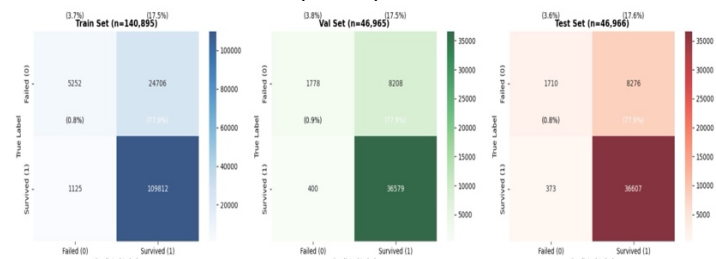


Figure 3. Logistic Regression Model Performance

### Top 5 Survival Determinants:

- Governance Quality (strongest factor)
- Age Paradox – younger charities more resilient short-term
- Recent Activity & Compliance
- Financial Thresholds – survival increases with income  
 <£10k → 51.6% survival  
 £500k → 84.3% survival
- Legal Structure – CIOs: 91.4% survival vs Trusts: 68.4%

### Risk Factors:

- Single-source funding: -16% survival odds
- Financial inefficiency: -85% survival odds

## Value and Impact of Research

- For Charity Leaders: Prioritise governance, compliance, and financial resilience.
- For Funders & Regulators: Risk stratification enables smarter resource allocation (12.4–95.2% survival probability).
- For Policymakers: UK-wide evidence-based framework for charity survival.
- Practical Output: Prototype web app for real-time survival risk assessment.



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