Detecting Fraud in Foreign Financial Assistance Transactions using Benford’s Law

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**Abstract**

Transparency of foreign financial assistance is being recognized to be one of the key areas whereby aid effectiveness can be improved. Increased aid transparency allows for outside organizations to begin study and analyze foreign financial assistance transactions. In this paper, the author will use foreign aid transactions that have been published to the International Aid Transparency Initiative to identify transactions that are suspicious and possibly fraudulent. These transactions will be identified using a numerical law about the frequency distribution of leading digits that occur in nature. This paper will also discuss data collection processes and the lack of important fields in the dataset that could result in higher susceptibility of corruption.

**Keywords**

Foreign aid, Benford’s Law, fraud, data collection

**1. Introduction**

*1.1 Background*

Foreign financial assistance also known as Official Development Assistance (ODA) is one of the most important instruments of collaboration between rich nations/organizations and poor nations. In 2009, net disbursements of ODA were $140.2 billion and over $3.76 trillion between 1960 and 2009. For 31 recipient countries ODA was greater than 10% of their GDP in 2008 (Ghosh & Kharas, 2011). There is a growing consensus that aid transparency must be improved to get better aid effectiveness. Part of this improved aid effectiveness is transparency so that data collection and project implementation processes can be improved also so that advanced analytics can be performed transactional information to better under project funded by ODA.

Fraud and error detection in accounting dates back to the 13th century when Europe instituted the practice of bookkeeping. Numerous methods have been created to discover and diagnose fraud with an aim of decreasing negative economic impact. This has resulted in the creation of forensic accounting. Internal auditing, as a sub-genre of forensic accounting, relies on systematic approaches to evaluate and understand a company’s financial statements and corresponding data. One particular methodology that can be applied to understand financial statements and interpret deviations is Benford’s Law which relies on the underlying use of digit distribution across figures in financial statements (Boronico, Harris, & Teplitsky, 2014). This law and methodology can be used and applied to ODA financial transactions.

*1.2 Problem Definition*

This paper will use an analytic methodology to address the following problem:

Methods

Results

Conclusions

References