


# Chapter 13

## Forensic Auditing Tools in Detecting Financial Statements' Irregularities: Benford's Law and Beneish Model in the Case of Toshiba

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### ABSTRACT

*This chapter illustrates a three-stage analytical procedure to examine and detect the likelihood of financial statements manipulation and identify the accounts that were manipulated by Toshiba. It applies the Beneish model and Benford's law to Toshiba's balance sheet and income statement from 2002 to 2016. The results show significant deviation from Benford's law in the pre-fraud period in equity, long-term receivables and property, plant and equipment, long-term liabilities, and in the post-fraud period in the long-term liabilities, equity, long-term receivables, and total current assets. The results provide evidence of the usefulness of Beneish and Benford law as forensic auditing tools for detecting financial statements' irregularities and fraud that would be useful for the audit planning and sampling procedures.*

DOI: 10.4018/978-1-5225-7356-2.ch013

## **INTRODUCTION: FRAUDULENT FINANCIAL REPORTING AND THE AUDITOR**

Accounting and fraudulent financial reporting primarily consist of manipulating financial elements by overstating sales, profits and assets or by understating liabilities, expenses or losses (Spathis, 2002). Detecting accounting fraud using traditional internal audit procedures is difficult and complex (Fanning, Cogger, & Srivasta, 1995), and also expensive and time consuming (Buddhakulsomsiri & Parthanadee, 2008). Detection of fraud in financial statements requires more advanced procedures than just using the standard auditing procedures (Asllani & Naco, 2014).

While auditors are qualified to perform the auditing function, they may not necessarily have the experience, knowledge and skills to detect fraud. For example, frauds in Enron, AIG & Olympus were uncovered through whistleblowing and investigations by the regulators for suspicious transactions and accounting irregularities. In the Enron case in 2001, the revenues, income and assets had been significantly overstated. The Enron's auditor, Arthur Andersen was later dissolved and lost its reputation as provider of independent audits of financial statements (Albrecht, Albrecht, Albrecht and Zimbelman, 2016). Enron's use of special purpose entities for off-balance sheet financing was a common practice to maintain high credit rating and raise capital (Wilson and Key, 2012). In the WorldCom case, the company's total assets were inflated by approximately \$11 billion and in India, Satyam manipulated both the balance sheets and income statements without the auditors (PWC) ever discovering the fraud for nearly 9 years. (Brown, Daugherty & Persellin, 2014; Bhasin, 2013). Most recently, Tesco was found overstating its profits by £263 million through revenue recognition irregularities (Williams, 2017). In these fraud cases, elements of financial statements were used and abused by keeping the debts off the balance sheets, underreporting line costs by capitalising expenses, inflating revenues with fake accounting entries, writing off large unapproved loans, converting unrealised investment losses into fee expenses and reporting losses as write-offs of goodwill.

The auditor has a responsibility to plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement, whether caused by error or fraud (International Standard on Auditing 240). One of the critical elements of auditors' work is assessing the materiality of errors. The auditor must take both the size of the error, i.e., its quantity and its qualitative characteristics into account when making the materiality decision. The forensic auditing tools provide a deeper level of insight towards materiality judgement; therefore addressing the need to enhance this skill is important to the auditing field.

## **BACKGROUND OF TOSHIBA FRAUD CASE**

Toshiba with more than 140 years of history, is a world leader and innovator in pioneering high technology, a diversified manufacturer and marketer of advanced electronic and electrical products and systems spanning energy systems, infrastructure systems and storage devices. Toshiba was founded in 1875, and today operates a global network of more than 450 companies, with approx. 141,300 employees worldwide and annual sales of 3.9 trillion yen (US\$37.2billion) ("Toshiba at a glance", 2018).

In 2017, Toshiba announced it was being sued by a group of foreign investors for JPY 43.9 billion (\$400m) the latest in a series of continued reverberations from the 2015 accounting scandal that rocked the company (Connolly, 2017). In 2015, Toshiba which had been perceived as "a totem of strong and virtuous Japanese corporate governance" admitted that it had committed a multi-year \$1.22 billion accounting

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