An Innovative Sustainability Performance Metric That Corrects Common Measurement Distortions

Y.S. Al Chen North Carolina State University

## Gilroy Zuckerman North Carolina State University

Most of the world's major corporations now publically report on their sustainability performance for a number of key parameters, e.g., water use, greenhouse gas (GHG) emissions, and waste generated. In the U.S. seventy two percent (72%) of the companies included in The S&P Index have published a sustainability report or corporate responsibility report during 2013 compared to 53% in 2012 and only 20% in 2011.<sup>1</sup> The most common metrics are total quantities of these key parameters (for example, total liters of water used and total tons of GHG emitted). However, since changes in the level of business activity distort the evaluation of a company's improvement in sustainability performance when only total quantities are evaluated, most companies normalize for the rate of activity by reporting rates of intensity (or efficiency) as ratios of the total quantity of a key parameter to a measure of business activity, e.g., total liters of water used per ton of product or per \$dollar of revenue. These intensity measures are often assumed to be appropriate measures of sustainability performance.

This study first will demonstrate that these measures can seriously distort a company's actual sustainability performance. This will be followed by a discussion of an improved metric recently developed by Bacardi Limited and several faculty at the Poole College of Management at North Carolina State University. This metric is an application of flexible budgeting and will be shown to be an accurate measure of sustainability performance.

Keywords: sustainability, performance metric, improvement, distortion, Bacardi Limited

<sup>&</sup>lt;sup>1</sup> Governance & Accountability Institute, Inc., June 2, 2014, New York, NY