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Economic consequences of key performance indicators' disclosure quality

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Abstract

Starting from 2006, UK listed companies are required to analyse their performance by using key performance indicators (KPIs) in specific sections of their annual reports and the UK Accounting Standard Board (ASB) provides companies with guidelines for the best practice regarding KPI disclosure. Motivated by the possible effects of the KPI disclosure quality, we examine their potential economic consequences for a sample of UK listed firms for the period 2006 to 2010. Our sample consists of 448 firm-year observations. We first develop a measure for the quality of the KPI disclosure based on the ASB's guidelines. We then test the economic consequences of financial and nonfinancial KPI disclosure quality both separately and combined into one variable. Our findings, after conducting various sensitivity tests, suggest that only the disclosure quality of financial KPIs matters. We find a significantly negative (weakly positive) relationship between disclosure quality of financial KPIs and the implied cost of capital (firm value). These results inform regulatory bodies as well as the academic literature about the potential economic consequences of this type of disclosure.

Introduction

The UK Companies Act (CA) of 2006 defines key performance indicators (KPIs) as the 'factors by reference to which the development, performance or position of the business of the company can be measured effectively' (CA, 2006: 196). The reporting of KPIs should be valuable for investors because they contain information related to important aspects of companies' activities which might not be clearly reflected in the financial statements (ACIFR, 2008). Therefore, KPI disclosure is crucial in supporting companies' communication with stakeholders in order to enable a better understanding of financial statements and the companies' progress towards the achievement of their objectives and targets (Accounting Standard Board (ASB) (ASB), 2006).

Many regulatory bodies suggest or require companies to disclose KPIs within their annual reports (e.g., EU Accounting and Modernisation Directive, 2003; International Accounting Standards Board (IASB), 2010, Security and Exchange Commission (SEC), 2003).[1] In the UK in particular, section 417 of the CA (2006) introduced the requirement for companies (except the small ones) to analyse their performance by using KPIs in their Business Review.[2] These could be financial or, 'if appropriate', nonfinancial. The latter could include environmental and employee matters (CA, 2006). Furthermore, in January 2006, the ASB issued the reporting statement 'Operating and Financial Review' (OFR) which contains guidelines for the best practices regarding KPI disclosure. However, the nature of these requirements allows companies' directors to exercise discretion on the reporting of KPIs: a) they can determine the extent necessary for financial and nonfinancial KPIs for an understanding of the development, performance, or position of the company; b) they can determine what is appropriate when reporting nonfinancial KPIs; and c) they can take advantage of the exemption provisions (10, 11 section 417 of CA, 2006) for not providing KPI information because of confidentiality reasons. Therefore, the quality and quantity of KPI reporting should vary among UK companies. However, many reports (e.g., Financial Reporting Council (FRC), 2007, Financial Reporting Council (FRC), 2009) and regulatory bodies (International Accounting Standards Board (IASB), 2010, Security and Exchange Commission (SEC), 2003) highlight that quality is the crucial issue in KPI reporting and raise concerns about the usefulness of quantity of information regarding KPIs.

Despite these concerns, we identify only a research monograph which investigates the quantity or the quality of KPI reporting for a small sample of UK listed companies.[3] Further, we know of no study which examines the economic consequences of these disclosures in the UK.[4] Considering this gap in the literature, we first develop a research instrument to measure the quality of the KPI disclosure. This instrument considers the qualitative attributes of KPI information as suggested by the OFR (ASB, 2006) which are expected to be fulfilled by companies' corresponding disclosure. Subsequently, we manually collect our data from the annual reports of a randomly selected sample of UK nonfinancial firms which were constituents of the FTSE 350 for the five-year period of 2006 to 2010 that results in 448 observations. Once we calculate KPI disclosure scores, we conduct univariate and multivariate analyses to explore their relationship with companies' implied cost of capital (ICC) and their value relevance.

We find high variations in KPI reporting practice across the sample firms with a clear tendency to focus on financial KPIs. Although the quality of KPI disclosure increases over time, the mean quality scores are relatively low (below 50% for both financial and nonfinancial KPIs). These low scores indicate that although the companies do disclose some information about financial and nonfinancial KPIs, they fail to follow the ASB's (2006) guidelines for best practice. Our empirical results show that the quality of financial KPI disclosures is negatively related with companies' ICCs and has a weakly positive relationship with their market values. Additional tests also show that the quantity of KPI reporting results in no economic consequences, which confirms the regulatory bodies' recommendations that the quality of KPI reporting is of great importance.

Based on these findings, our study contributes to the literature in several ways. First, we develop a context-specific measure of the quality of KPI reporting. As highlighted by Leuz and Wysocki (2008), there is a lack of a measure which combines all of the desirable properties for disclosure. The approach we follow could be beneficial for future studies dealing with disclosures in order to avoid proxy-selection biases. Second, we add empirical evidence about the economic consequences of the quality of the KPI disclosure. We find that the more companies disclose financial KPIs that follow the ASB's (2006) guidelines, the more they benefit from a reduction in their cost of capital and an increase in their market value. These results suggest that KPI related information in companies' annual reports is fed into the companies' cost of capital and market valuation, indicating that the requirement for companies to disclose KPIs contains value relevant information for financial statement users. This should be of interest to companies as well as regulators. Additionally, our findings of very low quality levels for KPI disclosure indicate that many UK firms do not follow the ASB's corresponding guidelines and this should have an appeal to regulators. Arguably, more consultation with preparers and users on how the principles to be followed could add value by improving the quality of the information disclosed. Finally, this study has policy implications beyond the EU and the UK in particular. It is also relevant in the US since the SEC has introduced the requirement for companies to publish KPIs since 2003 and research regarding the economic consequences of such reporting is absent.

The remainder of the paper is organised as follows. Section 2 draws on the relevant regulatory framework and has a review of the relevant literature. In this section, we also develop the hypotheses tested. Section 3 discusses the research design. Section 4 presents the empirical analysis, and Section 5 discusses the results from the sensitivity tests. Section 6 concludes.

Section snippets

Regulatory framework

To highlight the increasing trend of requiring KPIs reporting across the world and in the UK in particular, this section reports the main relevant requirements for KPI reporting that came into force the last decade or so. At an international level, first, in 2003, the SEC released a guideline which emphasises that ‘companies should identify and discuss key performance indicators, including nonfinancial performance indicators, that their management uses to manage the business and that would be…

Measurement of KPI disclosure quality

To derive our measure of KPI disclosure quality, we draw on the OFR (ASB, 2006) guidelines. These describe the key qualitative characteristics of each KPI (see Appendix A for a full list of the characteristics). We consider that if KPI disclosure meet these characteristics, then the reporting should be of high quality. The following example is indicative of the usefulness of our measure. Drawing on the annual report published by *Qinetic Group PLC* in 2007, we find seven financial and two…

Descriptive statistics

We report the descriptive statistics for each control variable in Table 2.[15] Data are presented before any procedure that accounts for the presence of outliers — see below. The mean (median) *MV* of the sample is £7.5 (1.2) bn, while the standard deviation is…

Sensitivity analyses and additional tests[18]

First, given the debate surrounding the validity of ICC measures, we rerun our regressions that identify the link between KPI disclosure quality and the cost of capital by using a single measure for the ICC. In particular, we use the r_{MPEG} (Easton, 2004), since previous studies suggest that is best for ICC measures employing analyst forecasts (Botosan et al., 2011, Clarkson et al., 2013). Using this measure, we reduced our sample from 448 to 415 firm-year observations because of the difficulty…

Conclusions

We contribute to the disclosure literature by being the first study to measure the quality of KPI reporting in companies' annual reports and examining its economic consequences. In particular, we analyse the impact of KPI disclosure quality on firms' cost of capital and firm value. In order to measure the quality of corporate disclosure, we use a manual content analysis that considers all of the qualitative attributes of the information suggested by the ASB (2006) statement of best practice. An …

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> …We also validate our RD scores by linking them with both the cost of capital and firm value. The literature hypothesizes a negative correlation between the disclosure level and cost of capital and a positive correlation between disclosure level and market firm value (e.g., Botosan, 1997; Dhaliwal, Li, Tsang, & Yang, 2011; Elzahar et al., 2015; Francis, Lafond, Olsson, & Schipper, 2005; 2008; Franco, Urcan, & Vasvari, 2016; Gordon, Loeb, & Sohail, 2010; Kothari et al., 2009; Ntim et al., 2013; Orens, Aerts, & Cormier, 2010; Orens, Aerts, & Lybaert, 2009; Richardson & Welker, 2001; Sengupta, 1998). Accordingly, a sample of 328 non-financial firms constituting FTSE All-Share Index during 2005–2016 has been examined.…

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