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REGRESSION MODEL FOR RISK REPORTING IN FINANCIAL STATEMENTS OF ACCOUNTING SERVICES ENTITIES

Empirical
Study

Keywords

Risk
Financial reports
Regression model
Notes to financial statements
Transparency

JEL Classification

G32, M10, M41, M49, O16

Abstract

The purpose of financial reports is to provide useful information to users; the utility of information is defined through the qualitative characteristics (fundamental and enhancing). The financial crisis emphasized the limits of financial reporting which has been unable to prevent investors about the risks they were facing. Due to the current changes in business environment, managers have been highly motivated to rethink and improve the risk governance philosophy, processes and methodologies. The lack of quality, timely data and adequate systems to capture, report and measure the right information across the organization is a fundamental challenge for implementing and sustaining all aspects of effective risk management. Starting with the 80s, the investors are more interested in narratives (Notes to financial statements), than in primary reports (financial position and performance). The research will apply a regression model for assessment of risk reporting by the professional (accounting and taxation services) for major companies from Romania during the period 2009 – 2013.

Introduction

Risk has traditionally been defined in terms of the possibility of danger, loss, injury or other adverse consequences. When we talk about risk, we think about danger, loss or other unfavourable consequences. In accounting and in finance, the concept of risk is related to a wide range of terms, such as cost – volume analysis (CVA), decision trees (DT), discounted cash flows (DCF), capital assets pricing models (CAPM), and the newly hedging concept. In order to develop a definition for *Risk management*, both, the practitioners and researchers consider it a process by which organisations methodically address the risks part to their activities in pursuit of organisational objectives and across the portfolio of all their activities. Effective risk management involves: risk assessment; risk evaluation; risk treatment; and risk reporting. Risk management highlights the fact that the survival of a business entity depends heavily on its capabilities to anticipate and prepare for the change rather than waiting for the change and then react to it. It should be clearly understood that the objective of risk management is not to prevent or prohibit taking risk, but to ensure that the risks are consciously taken with complete knowledge and clear understanding so that it can be measured to help in mitigation. The paper will present a short evolution about accounting qualitative characteristics and how these features may conduct to a more transparent reporting and a balanced risk management process.

A key tenet of sound risk management is risk transparency, both in terms of internal risk reporting as well as external disclosure (Lam, 2007). Real-time risk information is lacking, unconsolidated or too aggregated. While there is great demand among business unit managers for automated, consolidated reports and "risk snapshots" as needed, few entities are able to satisfy it today. The ability to generate reports much more frequently, every day or even in real-time, would make risk management a much more flexible, powerful and valued tool for business managers.

A survey conducted by ACCA (2012) has shown that accountants understand risk and that they believe they make a major contribution to risk management and want to do more. It also suggests a correlation between good accounting practices and less dysfunctional behaviour.

In theory at least, accountants speak the right language on risk. They embrace the essentials of risk management – objectivity, thoughtfulness, and the rest – and the survey sample showed overwhelming support for the 39 good practices. Accountants value the support they can provide to decision-makers and understand the issues. They

are keen to use their skills more to contribute to integrated risk management. It seems very much to be in the best interest of organisations and their share and other stakeholders to let them do so.

Literature review

Accounting information quality

If financial information is to be useful, it must be relevant and faithfully represent what it wants to represent. The usefulness of financial information is enhanced if it is comparable, verifiable, timely and understandable (IASB, 2010). The qualitative characteristics of financial information, as set out in the conceptual framework of the International Accounting Standard Board (IASB), are fundamental for standard-setting and are intended to be used by firms when they make certain accounting decisions, in particular policy choices and policy changes (IASB, 2010).

Quality and transparency

While "quality" of accounting information and "transparency" of a disclosure system or accounting standards are commonly and interchangeably used terms, a precise definition of quality or transparency that everyone agrees on has been elusive. Pownall and Schipper (1999) define transparency as "standards that reveal the events, transactions, judgments, and estimates underlying the financial statements, and their implications" (Kothari, 2015). Levitt (1998) defines good accounting standards as those that "produce financial statements that report events in the periods in which they occur, not before, and not after." Ball *et al.* (2000) and Ball *et al.* (1999) interpret transparency as a combination of the properties of timeliness and conservatism.

$$\text{Transparency} = f(T, C)$$

where:

T – Timeliness

C – Conservatism

The quality of financial information users receive is a function of both the quality of (accounting) standards governing the disclosure of accounting information and the regulatory enforcement or corporate application of the standards in an economy.

$$\text{Quality of financial information} = f(Q_{IFRS}, Q_{GAAP}, MD, VD)$$

where:

Q_{IFRS} - quality of international accounting standards

Q_{GAAP} - quality of local / national accounting standards

MD – mandatory disclosure

VD – voluntary disclosure

Benefits from financial disclosure explain the demand for high quality accounting standards and disclosure systems. The theoretical literature shows that both mandated and voluntary disclosures reduce information asymmetries among informed and uninformed market participants (Diamond and Verrecchia 1991). Kothari reminds us that reduced information asymmetry lowers (the information asymmetry component of) the cost of capital by shrinking bid-ask spreads, enhancing trading volume, and diminishing stock-return volatility (Leuz and Verrecchia, 2000). A lot of papers analyses all three of these effects and the cost of capital both theoretically and empirically, starting with Stoll (1978), Glosten and Milgrom (1985), Admati and Pfleiderer (1988), and Amihud and Mendelson (1986, 1989).

Reporting risk

Risk disclosure is also influenced by the standard setters' requirements through the issuance of accounting standards (IAS 32, IFRS 7, IFRS 8, IFRS 9, IFRS 13) underpinning the reporting of risk. The growing literature on *Corporate Governance* provides further evidence that the information needs of users have been recognised by regulators and accounting professions. The information needs of users include those related to risk and uncertainties were also long noted and debated by accounting institutes worldwide. In the UK, the Institute of Chartered Accountants in England and Wales (ICAEW) showed an early interest in the subject and issued several documents in order to help companies' directors to identify, manage and measure risk and further enhance their public disclosure by providing more relevant risk-related information on all types of risk that have a potential bearing upon corporate performance. In preparing financial statements, the professionals use their judgments and, sometimes may be influenced by emotions – emotional labour - as Schiopu (2014) tries to research.

There are two groups of research methods on risk disclosure, The first one, concentrated on the annual report as the source for content analysis of risk disclosure, and the second one concentrated on the management discussion and analysis (MD&A) (Amran *et al.*, 2008). The annual reports were the main source to examine risk disclosure, the directors prepared it to fulfil with mandatory legal requirements and with accountability function (Linsley and Shrivess, 2005). Annual reports now include in addition to quantitative financial data, narratives, photographs and graphs. Most studies related to risk disclosure are directed in: UK (Abraham & Cox, 2007; Dhanani, 2003; Iatridis, 2008; Linsley and Lawrence, 2007; Linsley and Shrivess, 2006; Solomon *et al.*, 2000), Italy

((Beretta & Bozzolan, 2004), Portugal (Lopes and Rodrigues, 2007); Canada (Lajili and Zéghal, 2005); Australia (Poskitt, 2005), USA (Hodder, *et al.*, 2001; Jorion, 2002; Linsmeier *et al.*, 2002; Rajgopal, 1999; Schrand, 1997), Romania and Bulgaria (Roman, and Sargu, 2014). In Romania we found an increase interest in risk and risk management (Nichita, 2014), especially related to financial market (Horobet and Dumitrescu, 2008; Horobet and Ilie, 2009).

Linsley and Shrivess (2000) examined risk reporting requirements within an examination of advantages and disadvantages of disclosure of risk information through annual reports, and (Linsley and Shrivess, 2005) examined the same matters but within annual reports of financial companies. They arrived to an important merit that entities can reduce the cost of capital by improving risk disclosure and increasing it in the annual reports. Also, they encouraged firms to disclose more forward-looking information to raise the investors' value. Dietrich *et al.* (2001) also concentrated on the value of disclosing forward-looking information within annual reports and this will lead to improve market efficiency. While Botosan (2004) explained the difficulty of measuring the quality of risk disclosure, because the quality of disclosure depends on user perception as listed by the International Accounting Standard Board. The most important study was realised by Linsley and Shrivess (2006), and they found positive association between narrative risk reporting (number of risk disclosures) and company size (confirmed with the results made by Beretta and Bozzolan (2004) for Italian companies). Also, they found positive association between narrative risk reporting (number of risk disclosures) and the level of environmental risk (measured by Innovest EcoValue²¹TM), in addition, companies disclosed greater amount of risk information if they have lower levels of environmental risk, and companies with higher levels of risk did not provide sufficient risk information to stakeholders. In addition, no association between narrative risks reports (number of risk disclosures) and five measures of financial risk containing: gearing ratio, asset cover, and price to book value of equity, *qui - score* and *beta - factor*. They did not find monetary valuations of risk information and companies have a willingness to disclose forward-looking risk information.

Methodology and sample

The research will present the state of presentation the information related to risk using the regression model. The choice of firms was based on the availability of data. The study excluded financial and insurance firms because they are subject to specific disclosure requirements, so their annual reports are not to be considered as voluntarily determined. The source of data sample is doingbusiness.ro; the paper is using a sample of 25

companies, classified by doingbusiness.ro as major companies (the site doingbusiness.ro uses the E&Y methodology in order to classify entities; the formula proposed by E&Y includes quantitative and qualitative variables). The Romanian market of accounting services is around EUR 400 mil (Vulpoi, 2014).

Our research is focused on reporting risk by professionals (accountant) in their financial statement: since they prepare others financial statements, let's examine if they report risk and how. The first part of research was a qualitative research (text analysis). Based on published financial statement, especially the Noted to financial statement or Audit reports, we looked for the term risk and other related to this in order to understand if professionals report the risks that they are confronting; related terms are: credit risk, market risk, exchange rate risk, foreign risk, strategically risk, operational risk.

In case, the companies are audited, the financial statements (or notes to financial statements) include more aspects related to risk than others. Generally, the presented risks are related to financial risk (exchange rate risk, credit risk, market risk); there are very few aspects about strategically or operational risk in professional services. We discover that financial services (accounting and taxation services) do not use financial instruments.

For a quantitative analysis we applied a regression model with five variables, as follows:

$$\text{Risk disclosure (RD)} = \beta_0 + \beta_1 \text{Firm Size} + \beta_2 \text{Leverage} + \beta_3 \text{Profitability (based on assets)} + \beta_4 \text{Profitability (based on equity)} + \beta_5 \text{Audit} + \epsilon$$

Analysis, discussions, and perspectives for future research

The data on risk disclosure levels was obtained from annual financial statements and audit reports for the years 2009 to 2013. The variables and their possible effects on model are explained below:

(1) The research uses the turnover in order to assess the size on the company based on the fact that professional services companies have less assets than others (manufacturing) and turnover may be a reliable indicator. The fact that large companies have greater financing needs, means they provide more information about risk.

(2) The leverage is computed as total debts divided by total assets of company. High level of leverage increases company risk.

(3) The profitability is represented by two indicators: Return on assets and return on equity; the major companies have a motivation to disclose higher level of risk information to clarify the higher level of return, increase investors' confidence and decrease political sensitivity.

(4) We consider that it is important to know if the companies are audited or not; is they are audited by a Big 4, the variable gets value 1, if the financial statements are audited by a non Big 4 or are not audited, the variable gets 0.

a. Descriptive analysis

Appendix 1 shows the results related to descriptive analysis, the minimum, maximum, mean and standard deviation of sample (the smaller the standard deviation the more accurate future predictions because there is less variability) for the continuous and categories variables in the sample data set and also provides information about disclosure for five years (2009 to 2013).

There is a wide range of variation in some variables within the sample as showed by the minimum and maximum values, in the year 2013, the level of risk disclosure (dependent variable (leverage)) ranges from 31.73 to 96.89 with a mean of 28.55 and a standard deviation of 12.05. Year 2009 has the lowest standard deviation for leverage (3.11). The turnover (in logarithms) range from around 16 to around 18 for all the selected years. The profitability indicators have negative values when the performance for year is a loss. In generally, the accounting services companies form our sample reported profit (92%); for some companies the income was so immaterial, so the returns tend to be zero. There is greater differentiation between sizes of companies measured using the turnover (SD is greater than it means). The return on assets revealed a great dispersion between items from sample.

b. Multiple regression analysis

Results of the regression show that standard deviation of the error terms are 57.16, 54.25, 54.41, 46.57, and 50.02 for the five years respectively. The results statistically (ANOVA tests) support the significance of model for all five years, because F-ratio was 2.80 ($P=0.05=0.05$) in 2009, 3.65 ($P=0.021<0.05$) in 2010, 3.60 ($P=0.0022<0.05$) in 2011, 6.75 ($P=0.0013<0.05$) in 2012 and 5.09 ($P=0.005<0.05$) in 2013 respectively. In 2009 and 2013 they are very close to 5% level of significance.

R-squared means the percentage of independent variables that explain the variance in dependent variable (the level of risk disclosure), in other words, the variance percentage in dependent variable due to the variance percentage in independent variables. R-squared varies between 0.35 in 2009 (min) and 0.57 in 2012 (max) and is less than 75%; the best value (in 2012) implies that independent variables explain 57% of variance in risk disclosure and the remaining 43% is due to error or some unexplained factors.

c. Results of regression related to independent variables

The sample estimated β_0 (constant) and independent variables are:

2009 = {-270.55, 22.76, 0.04, -28.17, 16.35}
 2010 = {-416.78, 31.74, 0.71, -11.26, -7.30}
 2011 = {-462.40, 35.31, -0.27, 5.40, -24.59}
 2012 = {-680.02, 49.75, -1.24, -74.35, -5.53}
 2013 = {-521.62, 38.81, 0.54, -28.82, -2.76}

c1. The size of company is positively associated with disclosure or risk (P_{2009} , P_{2010} , P_{2011} , P_{2012} , and P_{2013} are less than 5%. The same results are in related literature (Beattie et al., 2004, Firth, 1979).

The companies from our sample are major companies and they present in the notes to financial statement information about risk in accordance with the principle *Tone from the top*: they prepare financial reports for other entities and it is important their reports to be standard setters.

c2. Leverage is insignificant correlated to risk disclosure, but positively in 2009 and 2010 and negatively in 2011, 2012 and 2013. This may be explained by the fact that they are not listed and there are not compulsory reporting requirements and the debtors share private information between them.

c3. Profitability in terms of return on assets and return on equity is insignificant too, like leverage.

Risk is not always bad for business and there is a real need to develop a bigger picture of risk management that balances risks and opportunities. Increasingly, organizations have come to recognize the opportunistic side, the value-creating potential of risk. Risk-taking is necessary for growth and success and the new risk management approach should re-embrace risk as a source of advantage. In essence, there is a realization that risk is not completely avoidable and, in fact, informed risk-taking is competitive advantage (Casualty Actuarial Society, 2003).

Conclusions

The focus of good risk management is the identification and treatment of those risks in order to bring into unison with the organisation's risk appetite.

As accountants provide decision support, this approach to risk management puts accountants in a very important position. Most "risky" decisions in companies have some sort of financial aspect, and it is most often accountants who are asked to estimate the financial implications of alternative courses of action. On top of this, accountants will almost always outnumber formally designated risk managers in any given organisation. Accountants provide objective measurement, analysis and assurance for making good decisions. Good decisions mean less risk. As accountants share an aptitude for managing risk, it makes sense to look

at how the day-to-day activities of the average accountant contribute to *risk management*.

The benefits of improved risk reporting should not be seen as being purely limited to individual investors or to the managers who gain investors confidence by such reporting. There are potential economic benefits to the wider community in terms of better risk-based resource allocation, with increased long-term capital formation as a result. The need to report on risks and risk management can also be expected to lead to improved internal information being collected on the risks that the enterprise faces, as well as the need to demonstrate that the risks identified are being managed, as shareholders hold directors to account for their risk management. However, companies' directors are sometimes reluctant to disclose additional disclosure because competitors may make strategic use of information disclosed to their advantage (Linsley and Shrive, 2005). This may lead to the imposition of a proprietary cost, hence putting a company at a competitive disadvantage and affecting the company negatively.

Entities need to integrate the risk-taking and the risk controlling sides and involve all the different views and perspectives within the organization (business executives, heads of business lines, risk managers) as well as including the perceptions of shareholders, customers, regulators and other external parties into the equation. To accomplish both objectives—linking better risk and strategy and integrating the risk-taking and the risk management sides together—companies need to adopt a fundamentally different approach.

Acknowledgement

This work was co financed from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013, project number POSDRU/159/1.5/S/142115 „Performance and excellence in doctoral and postdoctoral research in Romanian economics science domain”.

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