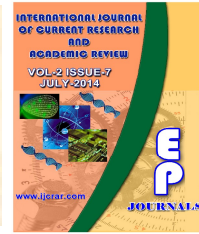




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Cash Flow Fixing: A New Approach to Economic Downturn (Small and Medium Size Enterprises)

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A B S T R A C T

This paper develops a simple model in predicting the possibility of SME operating on a going-concern basis during economic downturn, just by observing the components that constitute the cash flow information. Thus, SME can stay in business during economic downturn by increasing their operating sales and minimizing their operating expense and interest paid which makes it better off than winding down. Our statistical group are SME of all sectors in Spain and Galicia excluding financial sector. According to the considered situations for selecting samples, 269 firms were chosen for Spain and 50 firms for Galicia during the period of 2003 to 2012. The timeline of the study is essential because it helps us to determine the position of cash flow of SME in Galicia and Spain before the financial crisis. Research findings have shown that operating sales have a significant and positive relationship with cash flow while operating expenses have negative effect on cash flow across Spain and Galicia.

Introduction

After several years of impressive growth, the Spanish economy encountered an equally immense downturn starting in the third quarter of 2007 (TAIF, 2011), triggered by the lack of sufficient cash flow in the manufacturing and service sectors; regulation measures and a very permissive legislation for building and urbanisation; abundant and cheap credit with very high operating interest rate to small and medium size businesses and a longing for better

homes of the Spanish population (Leandro et al., 2006).

Initially, following the world trend, liquidity was abundant and was available at low operating interest rate, which caused the Spanish economy to heavily depend on foreign capital where many small and medium size enterprises expanded their previous trade or started building apartments which were sold very easily with favourable

terms of credits (Fernández, 2011). This led to a period of booming, because building is labour intensive and with jobs of low qualification, suitable credit to micro enterprises and therefore there was plenty employment and wages were not bad in comparison with other sectors (Euro challenge, 2012).

However, no efforts were required to gear the economy. Rather, the tourism sector which was the main strength of the Spanish economy began to experience some problems because, its old buildings and structures together with the overcrowding led to decreasing competitiveness and a negative cash flow. This sector characterized of small and medium traders which contributed over 50 percent of new jobs created during 2003 to 2007 began to experience challenges such as: poor credit management, insecurity and debt collection, low demand for the product or service at prices that will guarantee profitability, poor accounting, lack of sufficient cash cushion, paying too much for rents, labour and materials, lack of a succession plan and a declining market, weighed the economy to a deteriorating state (TAIF, 2011).

Thus, business inefficiencies that were noticed during the boom period were quickly tripled during the period of economic downturn. And as such, those systematic inefficiencies and structural weaknesses often impacts profit negatively but even more crucial are the impacts on cash flow generated by small and medium sized enterprises. When cash flow suffers, business get squeezed her working capital, making payroll, buying raw materials and paying operating expenses become difficult (Marcus & Innace, 2001). The economic downturn causes most business owners to focus on how to increase profitability rather than identifying the problem that surrounds

cash flows. As such cash flows' importance is weighted by high profitability inspiring strategies. Following this argument, valuation metric of cash flows rather than earnings become more appropriate to address the going concern of small and medium size enterprises because during economic downturn, earnings of small and medium size enterprises can be very low, negative and manipulated.

Cash is the life blood of any business be it listed in the stock exchange or not, and is the vital component that keeps business healthy despite the fact that, the main objective of a business is profitability. For instance, inventory can be properly characterised as business money sitting on a shelf for most small businesses. Thus success comes from maintaining a proper balance between the right amount of merchandise and probable customer demand (Atrill & McInaney, 2004). However, almost all small and medium size businesses are confronted with a problem of excess of inventory and lack of positive cash flows and as a result liquidation becomes the normal course of the business in the short term.

Thus a key lesson from the economic downturn reveals the importance of cash flows on the continuity of small and medium size enterprises and if small and medium size enterprises can survive, then the following economic problems such as unemployment and increasing government expenditure on health care will be overcome and eventually result to a prosperous economy (Mbonyane, 2006).

Further, auditor's decision on financial statement during economic downturn has been a vital instrument on the going concern of small and medium size enterprises. The GAAS states that auditors have the responsibility to evaluate whether there is

substantial doubt about the entity's ability to continue as a going concern for a reasonable period of time, not to exceed one year beyond the date of financial statements being audited (AICPA, 2012). Thus, auditors ensure that operating sales trends, cash sources and uses, available cash and funding have been reported according to the accounting standard and certainly express their opinion on the going concern of the companies. However, prior literature has proven that, auditors have not recognised the seriousness of the lack of financial stability in the company because, the auditors do neglect the relevance of cash flows of the small and medium size enterprises and the seriousness that, shortage of liquidity can rapidly result to an end of business (Grunet et al., 2004).

Indeed, small and medium sized enterprises are the predominant type of business in the Spanish economy and typically account for three quarter of all employments. According to Sabi data base, SME make up the majority of firms with ultimate business failure during their early stage. Quantitatively, 194.065 out of 1.2366.293 unlisted active companies account for firms that experience business failure within the first 9 trading years. Thus, the importance of cash flow on the continuity of SME is less researched even though it is very important to economic growth and prosperity. As such, the cash flow fixing approach reveals the most likely possibilities to ensure going concern on SMEs during the economic downturn.

Moreover, prior research has illustrated the use of qualitative variables, age, type of business, industrial sector in combination with financial ratios, in relation to the going concern of SMEs (Grunet et al., 2004). Pisón Fernandez, (1983) investigates the situation of large, medium and small

enterprises during the economic downturn of the last quarter of the 19 century. Using the Spanish sample, the result of her study indicates that SMEs are essential factors for hindering market dominance situations; they have the capacity of competing with large companies in a number of activities under a free market system and stimulate employment creation. Therefore, the major difference between the SMEs and large companies are the fact that large companies have the possibilities of expanding their available cash flow through selling their shares in the stock exchange and the possibilities of obtaining long-term and short-term loans while, SMEs are confronted with low credit availability and their inability to be listed in the stock exchange.

Last work on corporate failure with SMEs involves the application of a multiple variables model and single variable model on the prediction of failure in Spanish companies. Cibrán Ferrar, (1983) argues that the ultimate goal of a company is survival rather than profit maximisation and as such it is important to predict those factors that are predominantly attributed to business failure during economic downturn. She adds that the use of multiple variable models to predict company' failures is very necessary because it provides relevant implications of the distinctive variables that contributed to the failures.

Recently, empirical evidence has justified that the going concern of SMEs can be jeopardize by prices charged by small and medium Spanish auditors to their customers (Serrano et al., 2013), and concluded that audit fees issued by small and medium sized auditors contain a premium for business risk. Thus, the higher the level of risk attributed to clients, the higher the risk involved in the audit and the possibilities of business continuity becomes lower.

In practice, during the establishment of the audit engagement letter, the audit manager noticed that the audit fee is exceptionally low, even when it has been accepted. Some auditors assert that they actually performed the work but did not document it. Indeed, United State Board of Accountancy members have noted low fees as a common denominator involving inadequate audit work and as such poor audit. For instance, if audit managers are measured on engagement realization, and fees are quoted at a very low level, an audit manager may be put in a position where it is difficult or impossible to perform the work required by standard and earn the expected realization (AICPA, 2011). And as such the going concern of the business might be jeopardized especially when the auditor is not amongst the 4-big audit firms.

Exceptionally, this paper seeks to use the cash flow fixing components such as operating expense, operating sales and operating interest to illustrate the going concern of small and medium size enterprises during economic downturn and the underlining benefits. It employs a correlation method to test the assumptions of multi variable regression across Spain and Galicia during year 2012 (Al-Debi'e, 2011; Leland, 1994; Black and Cox, 1976; Merton, Uhrig-Homburg, 2004).

The data consist of over 269 for Spain and 50 records of accounting data for Galicia and other information available to active companies during this period. It further takes into account that there are SME with complete financial information and those without complete financial information. According to Altman, Sabato and Wilson (2008), findings have shown that a set of non-financial and non-accounting variables (qualitative information) are characterised with business failure. They conclude that the

failure rate of SMEs in UK surviving more than 1 year is around 1.2% characterised with limited financial information. This implies that failure to file complete financial information can be attributed to a deliberate action due to some financial difficulties the company might have encountered.

Lastly, cash flow statement has been argued by most researchers as an instrument of tracking risky business (Altman et al., 2008). Their qualitative information model for SME formulates no cash flow statement as a likelihood of risky financial situation because lack of submitting cash flow statement enhanced the possibility of company characterised with higher risk. In other word, lack of cash flow statement reveals that the business going concern is in jeopardy and the situation can be chancier during economic downturn. The next section of this paper, reviews relevant literature on cash flow, going concern, SME, and economic downturn with reference to the Spanish case.

Relevant Literature

Cash Flows

The cash flow has been an interesting concept in the area of corporate finance, thus, the first major stream of studies examined market valuation of cash flows and the emphasis of cash flows in financial statements (Garrod & Hadi, 1998; Arthur et al., 2008; IASB 2001, IAS 7; Anderson et al., 2009; Arthur et al., 2008; Gordo et al., 2012; Dechow 1994; Jensen, 1986). According to this studies, cash flow is an important component in the financial statement that enables investors and other financial analysts in decision making such as valuating securities prices, appraising risk and returns of potential investments, assessing long term versus short term

investments and conducting capital budgeting.

Pioneer like Jensen was first to advocated the importance of cash flow in corporate reporting. Jensen considered that cash flow is the amount available to the company's supplier of equity after all operating expenses and principal repayments have been paid, and the necessary investments have been made (Jensen, 1986). He argued that cash flow can be free to be distributed without negatively affecting the going concern of the business. According to his research, investors and other financial analysts considered price as a response function of company's cash flows. However, none of the above studies have investigated the importance of cash flow as an alarm to going concern of small and medium sized companies in Spain.

The second major streams of studies have illustrated that cash flows are less relevant to earnings when predicting future cash flows and share prices (Dechow et al, 2003; Barth et al, 2005; Dechow, 1994; Ali and Pope, 1991; Ball and Brown 1968; Easton and Harris 1991; Jennings et al. 2001). The results from these studies have admitted that investors do not rely on cash flows when making decisions even though cash flows are less manipulated by managerial discrepancies and as such financial statement in France are less conservative (Charitou et al., 2010).

Even though the above studies do not lay emphasis on SMEs, we argue that since the objective of cash flow statement is to provide evidence of the inflow and outflow of money in a given period, irrespective of whether a company is a large corporation or SME, the fundamentals of the cash flows statement can equally be applied and as such directors of SMEs can take advantage of

those financial accounting regulations and apply it in their companies. We find these studies relevant because they provide us an insight on auditor's decision on the going concern of a company.

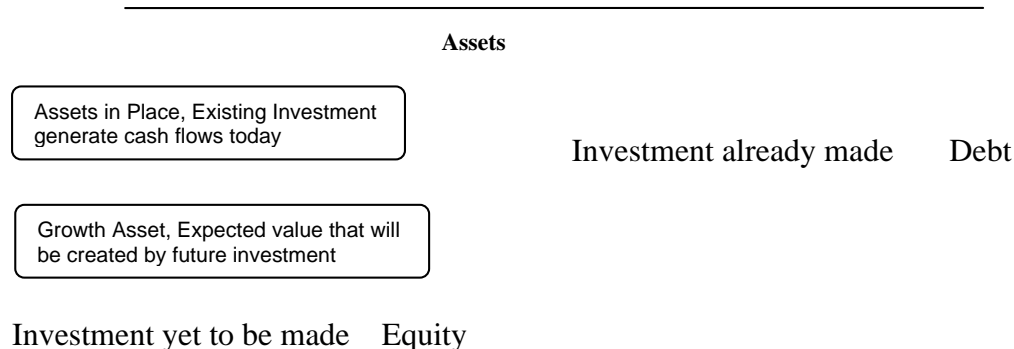
Going Concern Principle

Going concern principle is an assumption which is globally understood and accepted by accounting professionals even though it was later incorporated in the U.S GAAP in October 2008. Going concern principle is an assumption that an entity will remain in business for the foreseeable future. The going concern assumption is a fundamental assumption in preparation of a company's financial statement. According to the going concern assumption, entity is ordinarily viewed to continuing in business for the foreseeable future with neither the intention nor the necessity of liquidation, ceasing trading or seeking protection from creditors pursuant to laws or regulation (AICPA, 2011). Therefore, entity's ability to continue in business in the near future can be formulated as a function of the available cash flows held by the entity; the responsibility of its auditor being able to do the right job; and the risky surrounding it assets.

Going Concern versus Asset Valuation

Under asset valuation, a business is considered as an on-going entity with assets that it already owns and assets it expects to invest in the near future (Damodaran, (2006). Thus, the value of an asset in the discounted cash flow framework is the present value of the expected cash flows on that asset. A look at a balance sheet from a financial point of views reveals the relationship between an entity as a going concern and valuing a collection of assets (see figure 1 below).

Figure 1 Going concern versus Asset valuation



Source: Damodaran A. (2006).

We argue that going concern valuation model takes into consideration not just the existing assets of the entity but also the expected future investments and their profitability. Thus, existing assets and expected future investments and profitability arise only when the entity has been predicted on a going concern basis. However, under the asset based valuation model, assets are presumed to be sold now and as such, the value obtained from selling the assets should be equal to the value obtained from discounted cash flow valuation of individual assets.

Going Concern versus Auditors

Over several decades, auditors have as requirement by the auditing standards to issue going concern opinion when they realise that the financial statement have been prepared on a going concern basis and there is certainty that the company will continue in business in the nearest future. Despite the above view, companies frequently fail after receiving clean audit opinion (Damodaran, (2006).

Teoh, (1992) illustrated that companies have two major way of switching to avoid going concern opinions. Firstly, he stated that auditors may face dismissal threat and may

not disclose going concern problem if they lack independence and second, even when auditor reports independently, company may strategically dismiss or appoint audit firm that is likely to give going concern audit opinion. Therefore, auditor issuing a going concern is justifying that the company has available cash to continue in business and is able to pay its debts.

However, failure to issue a warning against impending financial distress or failure can result in subsequently cost litigation faced by auditors (Bonner et al, 1998; Francis and Krishnan, 1999). Example can be seen from Arthur Andersen LLP who voluntarily surrendered its licenses after being found guilty of criminal charges relating to the firm's handling of the auditing of Enron, an energy corporation which had filed for bankruptcy in 2001 (Baird et al., 2002).

Moreover, they argued that even though the asset of Enron was quickly sold, there was a possibility of preserving Enron's value as a going concern. Consequently, going concern was more favourable for Enron case since it had net assets but difficulties meeting its short-term obligations which might enable it to continue as a going concern after adopting a number of short-run actions such as selling assets to *raise sufficient available*

cash, reducing capital or research and development expenditures, exiting loss-making segments of its business, or raising additional long-run debt against its net assets to meet obligation, thus addressing the importance of cash flow on a going concern basis. However, no empirical evidence has illustrated going concern as a function of the cash flow available using small and medium sized enterprises (Baird et al., 2002). In this study, we address that before a business is considered on a going concern basis, the auditor must have checked if there is sufficient cash flow available to meet its short-run obligations.

Small and Medium Sized Enterprises (SME) failure

The failure of SME during economic downturn has been considered as an important line of research in the 21st century. The high collapse of SME during economic crisis has not only raised alarm to research but has also been of great influence on government strategies on unemployment. This is because SME contribute over 50% of new jobs in the Spanish Economy and has demonstrated potential influence on governmental policies, bank loan and investment decision (Fernández, 2011 & Miren et al., 2011)). The relevant literature used in this study is structured in three parts.

The first group of studies examines factors attributed to business failure in the U.S during economic crisis in the late 1900 (Altman, 1968; Beaver, 1966; Altman et al., 1977; Ohlson, 1980; Zmijewski, 1984; Meyer & Pifer, 1970; Mistra & Drtina, 2004). However, none of the above studies have provided empirical evidence on going concern as a function of cash flows using SME as an example. Thus, this study is different from the above studies because; it provides a unique view on SME failure. It

models going concern as a function of cash flow and examines the SME failure during the economic downturn; it sets a unique and simple way of evaluating the going concern of SME just by looking at the amount inflow and outflow of cash.

The second stream of the research covering the scope of this study provides direct evidence using Europe sample. Using SME in UK as a typical example, this group of researchers argued that going concern of SME could have been a better option instead of liquidating assets (Altman et al., 2008; Watson & Everett, 1996; Heated, 2003; Peel & Peel, 1989; Grunert et al., 2004; Fantazzini & Figini, 2008, Hol, 2007). They added that liquidating assets are not only attributed to business failure but as a result of other personal factors such as owner is in a position of accepting employment with other entity; he/she is in a position of retiring and there are no successors to continue. Most often, owners of SME are in a position to liquidate when the benefit derived from their existing business is lower than the benefit of acquiring or accepting a job offer.

The third major stream of studies used financial ratios in combination with qualitative variables, age, industrial sector and the type of business to predict the reason why business fails during economic crisis in Spain (Pisón Fernandez, 1983; Cibrán Ferrar, 1983; Gabas, 1990). The above studies concluded that financial ratios in combination with qualitative information have significant influence on company's failure during economic crisis. Very few studies have been carried out in this area.

Following the illustration above, economist have added that an enterprise can continue in business as long as the surviving entity is capable of generating enough operating

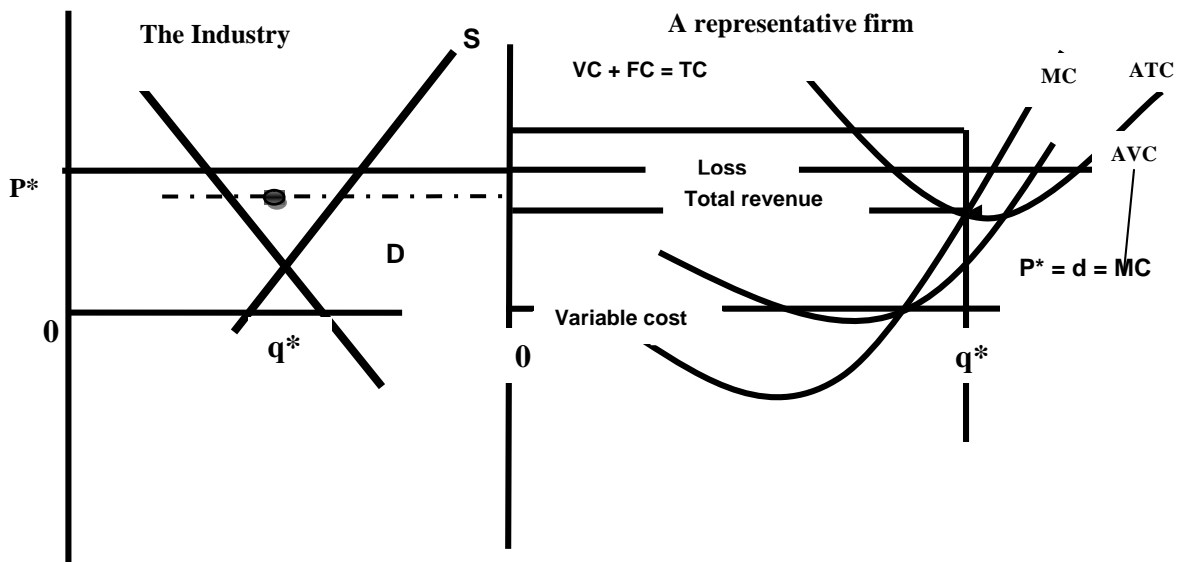
sales to cover its variable cost in the short run irrespective of whether it makes profit or loss. We contend that an entity continues on a going concern basis when it tries to operate in an attempt to minimize loss in the short run; the entity will lose less than if it liquidates. Thus, by definition, entities can continue in business until they attain the breakeven point and can continue in business along as its total operating sales exceeds variable costs. This is because every euro of operating sales that exceeds the variable costs will offset the fixed costs (see figure 2). Going by this illustration, the short run and the long run condition curves of SME during economic downturn have been considered as appropriate instruments for explaining the interaction of going concern as a function of cash flow (Varian, 1992).

Short-Run Conditions

Decisions made by SME in the short run are reflected in the decision to be made by firm in the long run. Thus, what happens in the

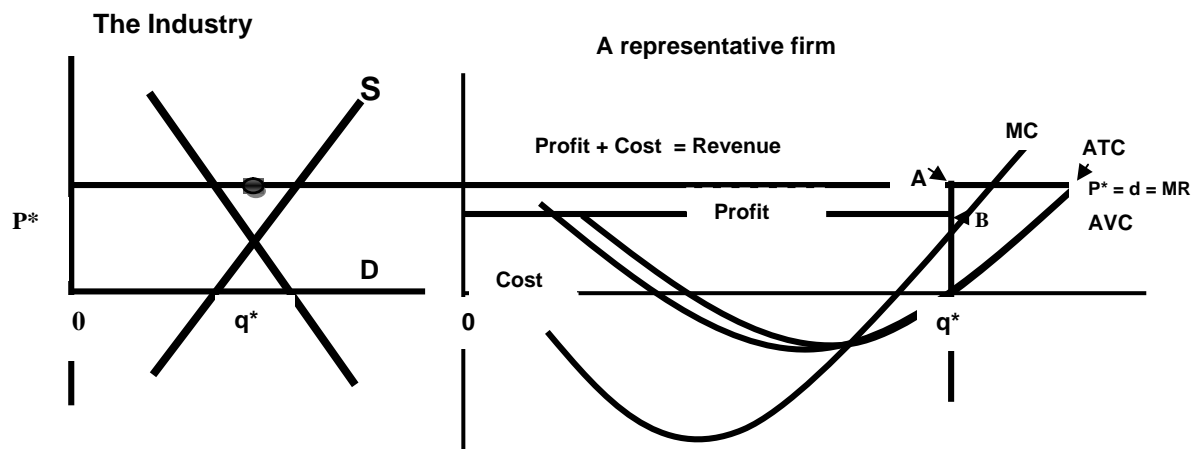
short run is going to affect the decision to be taken in the long run. Irrespective of the condition in which an enterprise is currently operating, whether incurring a loss or earning an economic profit, continuing as a going concern entity makes it better off than liquidating its assets and shutdown. This is because, when incurring losses in the short run, it can decide to minimise the losses by identifying the cost drivers which are relatively affecting negatively the available cash flows or maintain cost control policy. SME suffering from losses in the short run are better off continuing than shutting down because, if the SME decides to shut down, it will suffer for great losses (i.e., loss is equal to fixed cost when the firm decides to shut down (Varian, 1992). Moreover, if total operating sales exceed variable cost, it can use some of the extra money to cover its fixed cost, and as such, the SME will continue to produce even though it is suffering losses (see figure 2a below for more details).

Figure 2a: Firm earning economic loss in the short run



Source: Developed by researchers purposely for this study

Figure 2b: Firm earning economic profit in the short run



Source: Developed by researcher purposely for this study

Likewise an enterprise earning economic profit during economic downturn will continue operating as a going concern enterprise because, the rate of return generated by the SME is above the normal rate of return, thus the available cash obtained from operating sales is above the underlying cost of the SME. This keeps the owner of SME happy and is willing to continue in business in the nearest future. In effect, the short run condition provides a clean picture of how going concerns can be formulated as a function of cash flow to predict SME failure using Spanish SME as an example. Thus, figure 2b provides us with a better picture of how cash flow is used to predict the going concern of SME during the short run from an economic view.

Methodology

Definition of SME

Extant literatures have used different measures in defining the size of SME (Bueno et al., 1979; Bueno et al., 1981; Bueno & Lamothe, 1986). These studies mentioned above employed both *quantitative indicators* such as cash flow,

capital, operating sales, equity, employees, added value and *qualitative indicators* such as organizational type and property's structure; accounting type; and other qualitative characteristics to measure the size.

In Spain and in Galicia, the criteria set for classification of SME by size are annual income, number of employees and total assets (PGC, 2007). The *Plan General de Contabilidad de pequeña y mediana empresas* laid 3 criteria to value the size of SME:

- i) Total assets must not exceed 2.85 million (≤ 2.85 million)
- ii) Annual turnover must not exceed 5.7 million (≤ 5.7 million)
- iii) Mean number of employees must not exceed 50 (≤ 50)

Sample

Our data was collected from *Sabi database* which consists of 1.236.293 unlisted active companies and 194.065 for inactive unlisted companies as a result of bankruptcy during 2003 to 2012.

Table 1 panel A: Active and Inactive SME in SPAIN

Year	Active SME	Inactive SME	Total	Active SME/Total	Inactive SME/Total
2003	119	12	131	0,90839695	0,09160305
2004	181	31	212	0,85377358	0,14622642
2005	108	30	138	0,7826087	0,2173913
2006	142	64	206	0,68932039	0,31067961
2007	268	59	327	0,81957187	0,18042813
2008	437	34	452	0,92477876	0,07522124
2009	536	70	606	0,88448845	0,11551155
2010	727	41	768	0,94661458	0,05338542
2011	1246	64	1310	0,95114504	0,04885496
2012	887	34	921	0,9630836	0,0369164
Total	4731	439	5170	0,91541426	0,08458574

Source: Computed by researcher using data of SME extracted from the Sabi database

Table 1 panel B: Active and Inactive SME in Galicia

Year	Active SME	Inactive SME	Total	Active SME/Total	Inactive SME/Total
2003	6	9	15	0,40000000	0,60000000
2004	2	2	4	0,50000000	0,50000000
2005	3	3	6	0,50000000	0,50000000
2006	4	1	5	0,80000000	0,20000000
2007	9	5	14	0,64285714	0,35714286
2008	4	2	6	0,66666667	0,33333333
2009	6	0	6	1,00000000	-
2010	49	0	49	1,00000000	-
2011	86	0	86	1,00000000	-
2012	275	0	275	1,00000000	-
Total	444	22	466	0,95278970	0,04721030

Source: Computed by researcher using data of SME extracted from the Sabi databas

After applying the criteria for the definition SME according *Plan General de Contabilidad*, our sample was reduced to 4,731 for unlisted active companies and 439 for inactive unlisted companies with bankruptcy problem (see Table 1, Panel A). Although the number of active SME increases every year, 2012 reveals a reverse situation where active SME declined from 1246 to 887. Thus, our pool sample became 269 SME out of 4731 during the period of 2003 to 2012 with complete financial information.

Our sample for Galicia after the application of the definition of SMEs became 444 active unlisted firms from a sample of 40,131 unlisted firms and 22 inactive unlisted firms with bankruptcy problem from a sample of 379 during 2003 to 2012. For both the active and inactive companies, we provide a listed of the accounts of surviving and not surviving for each year (see Table 1, Panel B below). Unlike Spain where there was a sharp fall of active SME from 2011 to 2012, in Galicia, the number of active

SME increased from 86 to 275 during 2011 to 2012. Thus, for the purpose of this study we select 50 samples with full information from Galicia during the period of 2003 to 2012.

Technique Applied

We acknowledge that this study is an applied research because of the goal-based classification. We employ historical data from SME from SPAIN and GALICIA during the period 2003 to 2012 to test the hypothesis. Since this research has as objective to examine the relationship between the variables, it employs a correlation method to test the assumptions of multi variable regression. This method is different from the method used by most research to examine business' failure because; it uses a simple regression to capture the effect of sales, expenses and operating interest on cash flow. This study used cash flows model to examine the value relevance of operating sales, expenses and operating interest. The present cash flows model has been used in the literature (e.g., Al-Debi'e, 2011; Leland, 1994; Kim et al., 1993; Balck and Cox, 1976; Merton, Uhrig-Homburg, 2004; Merton, 1974). Thus, the model is as follows:

$$OCF_{i,t} = \beta_0 + \beta_1 OE_{i,t} + \beta_2 OS_{i,t} + e_{i,t} \quad (1)$$

Where:

$OCF_{i,t}$ = Operating cash flow of firm i in year t

$OS_{i,t}$ = Operating sales of firm i in year t

$OE_{i,t}$ = Operating expenses of firm i in year t

Hypotheses 1 and 2 show that operating sales and operating expense are positively

significant and therefore have a positive contribution on cash flows. Hence, the hypotheses 1 and 2 will be supported when β_1 and β_2 in the regression model are positive and significant. We use operating interest as a dummy variable because; it has both positive and negative effects on cash flow. To see this, we apply the effect of operating interest on the sales and cash expenses. That is,

$$OCF_{i,t} = \beta_0 + \beta_1 OE_{i,t} + \beta_2 OS_{i,t} + \beta_3 Operating\ interest_{i,t} + \beta_4 Operating\ interest_{i,t} * OE_{i,t} + \beta_5 Operating\ interest_{i,t} * OS_{i,t} + e_{i,t} \quad (2)$$

Where:

Operating interest_{i,t} is a dummy variable set equal to 1 for operating interest have an effect on cash flows and zero for no effect.

Operating interest_{i,t} * OS_{i,t} examines the interactive between Operating interest_{i,t} and OS_{i,t}

Operating interest_{i,t} * OE_{i,t} examines the interactive between Operating interest_{i,t} and OE_{i,t}

The slope β_4 and β_5 show the interaction of operating interest on the operating sales and operating expense. It affects business' cash flow and is subject to changes with the market.

Operating interest is seen as cash revenue when a business earns interest from loans or its investment and can also be refer as cash expense when a business pays interest for loan its received. Thus, slope β_4 and β_5 will support hypothesis 3 and 4.

Variables Measurement

This study examines the relationship between total operating expenses, operating sales and the cash flows for SME. It further seeks to explain the importance of the components of operating expenses and sales on cash flows. Cash operating interest paid to debt holders is considered as expensed while cash operating interest received is considered as operating sales. Thus, to capture this effect on cash flow, two dummy variables were considered. Since dummy variables take the value of 1 and 0, however, one of the dummy variables excluded to avoid perfect multicollinearity (Triman, 2009).

In sum, the independent and dependent variables used in the study are operating expense, operating sales and cash flows. The computation of each variable can be illustrated below:

- OCF** = Cash receipts from sales + operating interest and dividends earned - cash payment for inputs – cash payment for operating expenses - cash paid operating interest - cash for taxes.
- OE** = SG&A + R&A + increase (or – decrease) in prepaid expenses +

decrease (or – increase) in accrued liabilities.

OS = Cash receipt from sales or receipts from sales of goods and services.

OI = Operating interest received/paid for loan.

Hypotheses

H_{1a}: there is a positive relation between cash flows and operating sales

H_{1b}: there exists a positive relation between cash flow and cash expenses

H_{2a}: the interaction relation between operating interest and operating sales is positively significant

H_{2b}: the interaction relation between operating interest and operating expense is positively significant

Results

Descriptive Statistics

Table 3 provides a descriptive statistics of cash flows, operating expenses, operating interest and operating sales for Spain and Galicia. Panel A in table 3 accounts for small and medium enterprises in Spain (n = 269) and Panel B accounts for small and medium size enterprises in Galicia (n = 50) during economic downturn.

Table 2: Descriptive statistic

	OE	OCF	OS
<i>Mean</i>	9,143	-10,344	5,085
<i>Median</i>	3,570	-5,300	2.360
<i>Standard Deviation</i>	28,797	42,25	7,672
<i>Number</i>	269	269	269
	OE	OCF	OS
<i>Mean</i>	41,536	-3,151	34,72
<i>Median</i>	9,223	-2,665	16,075
<i>Standard Deviation</i>	20,327	87,936	17,5
<i>Number</i>	50	50	50

Source: Computed by researcher using data of SME extracted from the Sabi database.

In Panel A, the mean and the median for operating expense, cash flows, operating sales and operating interest accurately reflect the best measure of central tendency for our pool population. Thus, minimise error in the prediction of any one value in our data set. The difference between the mean and median for operating expense, cash flow, operating sales and operating interest is approximately smaller which indicates that every value in our data set was included in the estimate and produces the lowest amount of error. Unlike in Panel B where the mean and the median of operating expense and operating sales are approximately larger showing that, not all the data set contributed in the estimation.

Therefore, the median of operating expense (9,223) for SME in Galicia is approximately equal to the mean of the operating expense (9,143) for SME in Spain. This indicates that irrespective of the location, the operating expense is approximately equal for all SME. However, the mean of operating sales (34,72) for SME in Galicia is larger than the mean of operating sales (5,084) for SME in Spain. This shows that SME make more operating sales in Galicia than in Spain and as such are better off during economic downturn. Further, the means of cash flows (-3.151) for SME in Galicia are larger than mean of cash flows (-10,344) for SME in Spain. The mean of operating interest (1,653) for SME in Spain is slightly larger than the mean of operating interest (1,297) for SME in Spain. Thus, irrespective of the location, the operating interest assumed by SME during economic downturn is approximately equal and as such, no SME is better off to another.

Equation Coefficients

Coefficient determination indicates that operating expense and operating sales explain the variation in cash flow across Spain and Galicia. The significant level of coefficients of each variable and its comparison with the coefficient significant level of error (0,05) was approved at the 95 percent of confidence level. In Spain, the coefficients of operating expense ($\beta_1 = 0,539$) and operating sales ($\beta_2 = 1,334$) are positive significant. Thus, the results support hypothesis 1a and 1b that there is a positive relation between cash flow and operating expense and operating sales.

Like Spain, the coefficients of operating expense ($\beta_1 = 51,007$) and operating sales ($\beta_2 = 39,487$) are positive significant in Galicia and add more support to hypothesis 1a and 1b. Cash flow is largely influenced by operating expense and operating sales in Galicia than in Spain. This accounts for high liquidation of SME in Galicia relatively to Spain. The difference in R^2 across Galicia and Spain is relatively small and is both less than 1 which implies that the regression line fit the data sets. This is consistent to prior studies as Pablo Fernández et al., (2013); Cremers and Petajisto, (2009); Barber et al., (2003); Pablo Fernández (2013).

The significant level of coefficients of each variable and its comparison with the coefficient significant level of error (0,05) was approved at the 95 percent of confidence level. In Spain, the interactive effect of operating interest is statistically insignificant with coefficients ($\beta_3 = 0,393$).

Table 3: $OCF_{i,t} = \beta_0 + \beta_1 OE_{i,t} + \beta_2 OS_{i,t} + e_{i,t}$

Panel A: SME for Spain sample			
	coefficient	T-stat	P-value
β_0	-3,957	-1,205	0,005*
β_1	0,539	-31,752	0,000*
β_2	1,334	3,493	0,001*
R^2	0,894	-	0,001*
Panel B: SME for Galicia sample			
	coefficient	T-stat	P-value
β_0	-118,342	-3,442	0,001*
β_1	51,007	2,398	0,021*
β_2	39,487	2,122	0,039*
R^2	0,608	-	0,001*

Source: Computed by researcher using SPSS 22 (2013). *Significant at 5% level.

Table 4: $OCF_{i,t} = \beta_0 + \beta_1 OE_{i,t} + \beta_2 OS_{i,t} + \beta_3 Operating\ interest_{i,t} + \beta_4 Operating\ interest_{i,t} * OE_{i,t} + \beta_5 Operating\ interest_{i,t} * OS_{i,t} + e_{i,t}$

Panel A: SME for Spain sample			
	coefficient	T-stat	P-value
β_0	-3,646	-2,523	0,012*
β_1	-1,346	-31,402	0,000*
β_2	0,470	2,665	0,008*
β_3	0,393	1,050	0,295*
β_4	-0,118	-0,724	0,469*
β_5	-0,019	-0,728	0,467*
R^2	0,895	-	0,000*
Panel B: SME for Galicia sample			
	coefficient	T-stat	P-value
β_0	-118,342	-3,442	0,001*
β_1	51,007	2,122	0,039*
β_2	39,487	2,398	0,021*
β_3	90,209	1,268	0,042*
β_4	-3,055	0,823	0,051*
β_5	1,490	3,566	0,001*
R^2	0,608	-	0,001*

Source: Computed by researcher using SPSS 22 (2013). *Significant at 5% level.

Table 5: $OCF_{it} = \beta_0 + \beta_1 OE_{it} + \beta_2 OS_{it} + e_{it}$

	Spanish Samples			Galicia Samples		
	Variance Inflation Factor (VIF)	Tolerance	Durbin-Watson's d tests	Variance Inflation Factor (VIF)	Tolerance	Durbin-Watson's d tests
β_1	1,327	0,673	1,572	1,006	0,994	1,653
β_2	1,125	0,865		1,010	0,990	

Source: Computed by researcher using SPSS 22 (2013). *Durbin-Watson (1.5 – 2.5)

Table 6: $OCF_{it} = \beta_0 + \beta_1 OE_{it} + \beta_2 OS_{it} + \beta_3 Operating\ interest_{it} + \beta_4 Operating\ interest_{it} * OE_{it} + \beta_5 Operating\ interest_{it} * OS_{it} + e_{it}$

	Spanish Samples			Galicia Samples		
	Variance Inflation Factor (VIF)	Tolerance	Durbin-Watson's d tests	Variance Inflation Factor (VIF)	Tolerance	Durbin-Watson's d tests
β_1	1,329	0,672	1,612*	1,12	0,88	1,76*
β_2	1,114	0,886		1,28	0,72	
β_3	1,296	0,704		1,11	0,89	
β_4	1,267	0,733		1,23	0,77	
β_5	1,055	0,945		1,37	0,63	

Source: Computed by researcher using SPSS 22 (2013). *Durbin-Watson (1.5 – 2.5)

This indicates that SME are neither better off or worst off with the effect of operating interest in the model and as such no effect on cash flows. Unlike in Spain, the effect of operating interest in Galicia is positively significant with coefficient ($\beta_3 = 90,209$) and the interactive effect of operating interest on operating sales is positively significant with coefficient ($\beta_5 = 1,490$). Thus, the results support hypothesis 2a that the interaction relation between operating interest and operating sales is positively significant. SME can grow cash flow by maintaining high operating interest received profile.

However, in Galicia, the interactive effect of operating interest is negatively significant with coefficient ($\beta_4 = -3,055$). This is because; the operating interest is an out flow of cash and must have a negative effect on cash flow. This result illustrates the impact of operating interest on cash flow and how SME can be better off during economic downturn by maintaining a very low operating interest expense profile.

Even though the result of hypothesis 2b is negatively significant, the interactive effects of operating interest and expense have a

reverse effect on cash flow. This is because; operating interest expense is considered as an outflow of cash and thus negatively affects cash.

Consequently, during economic downturn, SME are better off maximizing the operating interest received while minimizing their operating interest paid and as such there is sufficient cash to operate on a going concern basis. This is consistent to prior studies such as Jeffrey et al., (2002); Damodaran, (1999); Hand, (2000); Pablo Fernández et al., (2013); Cremers and Petajisto, (2009); Barber et al., (2003); Pablo Fernández (2013).

Validity

We used three main assumptions that must be adhered to enable the regression analysis to be valid (Levine et al., 2008). Basically, the tolerance level from table 5 and 6 below, is above 0,3 for all the independent variables associated with each other which shows that there is no problem with multicollinearity. Further, the Durbin-Watson test shows that there is no autocorrelation with our data because, our Durbin-Watson test shown in table 5 and 6 lies between 1.5 and 2.5.

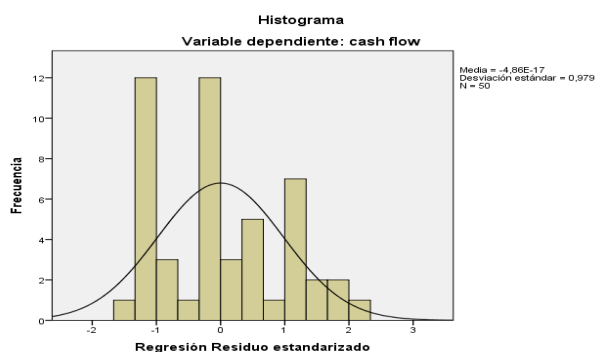


Figure 3: Histogram

Finally, our variables are normally distributed. Looking at the normality of

error distribution, at any given point in terms of our x value, we realized how the actual data point is normally distributed around that point in terms of their distance from the predicted value. So actual observation was normally distributed around our prediction line in terms of how far away they were from that line. Thus, our observed value was more closely to our predicted value (*see figure 3*).

Conclusion

This paper explores the fact that small and medium sized enterprises could be better off during economic downturn by strategising for high cash flow profile and as such maintaining continuity of the business in the nearest future. This study provides insight that cash flows served as fact for the going concern for small and medium sized enterprise and the process of generating future benefits. This view is also shared by Pisón Fernández (1983), Cibrán Ferrar, (1983) and Pablo Fernández, (2013).

The result from equation (1) indicated that there is a positive and significant relationship between the operating expense and operating sales with cash flow across Spain and Galicia. This means that an increase in operating sales will result in a positive increase in cash flow while an increase in operating expense will result to a decrease in cash flows and vice versa. This illustrates that changes in operating expense and operating sales will result in paralleled changes in cash flows of small and medium sized enterprise across Spain and Galicia. However, in Galicia, the relative change in operating expense and operating sales on cash flow is relatively high in respect to Spain.

In other words, operating expense and operating sales have informational content

and play a fundamental role in the amount of cash held by small and medium sized enterprises during economic downturn and as such determine whether the enterprise has the ability to continue in the nearest future. In Spain, operating sales comparison to operating expense have higher explanatory power unlike in Galicia where operating expense comparison to operating sales exhibits higher informational content.

The results from equation (2) illustrated the relevance of operating interest on cash flow during economic downturn for small and medium sized enterprise. Thus, the interactive effects of operating interest have increased the explanatory power of operating expense for forecasting cash flow across Spain while in Galicia; it has reduced the explanatory power of operating expense in forecasting cash flow. According to the results shown in table 4 in panel A, operating expense variable and the interactive effect of interest on operating expense have entered the model with a negative coefficient in Spain unlike in Galicia, operating expense has entered the model with positive coefficient; contrary to the interactive effect of interest on operating expense has entered the model with a negative coefficient in Galicia as shown in Panel B. This shows that the amount of cash held by small and medium size enterprise during economic downturn can be characterised by the amount of operating interest expense paid by cash, thus, impeding the continuity of SME in the nearest future.

The interactive effect of operating interest on operating sales also reduces the value relevance of cash flow across Spain and Galicia. This means operating interest will reduce the explanatory power of operating sales for forecasting cash flow. According to the results shown in table 4 Panel A & B,

operating sales variable has entered in the model with a positive coefficients across Spain and Galicia while the interactive effect of operating interest on operating sales have a negative coefficient for Spain and positive coefficient for Galicia. The negative effect of operating interest shows that, cash flow of small and medium sized enterprises suffers during economic downturn and is attributed to high operating interest rate charged.

In sum, operating expense, operating interest and operating sales have represented the major predictors of cash flow and therefore stand as a check point for knowing how well a business is doing especially during economic downturn where most small and medium sized enterprises experience low sale and an increasing operating cost. It has also contributed tremendously in providing information about the firm's liquidity and its ability to finance its growth from internally generated funds and as such serves as a "check" on the assumptions inherent in the income statement (Barber, Odean & Zheng, 2003).

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