FACTORS ASSOCIATED WITH INSOLVENCES AMONGST CIVIL ENGINEERING CONSTRUCTION FIRMS IN KWAZULU-NATAL, SOUTH AFRICA

B Ntuli and D Allopi*

SSI Engineers and Environmental Consultants (Pty) Ltd, P O Box 1066, Pietermaritzburg, 3200 *Durban University of Technology, P O Box 1334, Durban, 4000

ABSTRACT

Insolvency may be broadly defined as an inability of a business entity to meet pending financial commitments. For a construction firm, such a situation creates conditions whereby a business entity is unable to fulfill its contractual obligations with regard to work in progress or credit owing (De Valance, 1994). There are indications to suggest that during times of adverse conditions, the occurrences of insolvencies are mutually exclusive and remain a subject of debate. The occurrences of these financial facilities seem to have adversely affected business operations within the civil engineering construction Industry. In South Africa, figures released by the South African Federation of Civil Engineering Contractors (SAFCEC) in 1992 were suggesting an expected general decline in work load handling by this sector. This was a result of scaling down of heavy Infrastructure projects because of government shifting focus to housing and other related projects mainly towards meeting the needs of previously disadvantage communities. During that period large contractors suffered financially and some went through insolvency. The government had also put emphasis on transforming the sector to allow participation of emerging and small contractors but this was not properly regulated as most of these contractors did not have the experience and skills to operate sustainable construction firms. The Construction Industry Development Board (CIDB) was established in 2000 as a statutory body to provide leadership to stakeholders and to stimulate sustainable growth, reform and improvement of the construction sector for effective delivery and the industry's enhanced role in the country's economy. CIDB's regulations were implemented after 2003 and are positively impacting the sector's growth. This research work sought to evaluate the findings of an investigation into factors associated with insolvencies amongst civil engineering contractors in KwaZulu-Natal. The research thesis in based on the basis of the hypothesis that 'the prominent factors associated with civil engineering contractor's insolvencies are related to operational and strategic issues'. The analysis of the findings from questionnaires and liquidators' reports supports the hypothesis. From the findings, a number of recommendations are made to develop strategies to promote growth and sustainability in the civil construction industry especially amongst emerging contractors. This paper focuses on randomly selected liquidator's reports of construction firms which went insolvent between 2000 and 2005.

INTRODUCTION

Insolvency may be broadly defined as the inability of business entity to meet pending financial commitments. For a construction firm, such a situation creates conditions whereby a business entity is unable to fulfill its contractual obligations with regard to work in progress or creditors owing (De Valance, 1994). There are indications to suggest that during times of adverse conditions the occurrence of insolvent conditions seem to increase. The occurrence of financial failure seems to adversely affect business entity operations within the civil engineering construction industry. Two forms of insolvency exist as recognized by law, namely, commercial and factual insolvency. Commercial insolvency occurs where a business entity is unable to service its debts even though its assets may exceed its liabilities, whereas factual insolvency is where a firm's liabilities exceed its assets.

The terms bankruptcy and insolvency are often deemed to be interchangeable, although they may represent the same situation their application differs. Langford et al (1991) refers to bankruptcy as a term pertaining to individuals, whereas insolvency being a broader term incorporating liquidation, receiverships and administration of the company by bankers, or others with a financial stake.

Liquidation is referred to also as winding up and involves a process whereby the life of the company is brought to an end when it is unable to pay its debts. Receivership involves an appointment of a receiver liquidator whose main role is to protect the assets on the insolvent company, on behalf of the secured creditors (Ramsey, 1985). Incumbent upon his or her appointment the liquidator may continue running the affairs of the insolvent firm for a while to sell off its assets or streamline its operations for it to be profitable again with a view to selling the company as a going concern. However, given the uncertainty of recovery from loss by firm, the process of winding up the firm usually follows. The process of winding up can be decreed by the courts of law or may be voluntarily initiated by the members of the firm or creditors (Burnett, 1991).

BACKGROUND

During the early 1990's in South Africa, there was a general decline in workload handled by the construction sector. This was as a result of the scale down of heavy infrastructure projects because of the government shifting focus to housing and other related projects mainly towards meeting the needs of previously disadvantaged communities. This trend was confirmed by Symons (1994) in the Western Cape Province where the value of tenders awarded dropped from R 518 millions (1994) to R120 million (1995) during the January to May period. In October 1995, three well-established civil engineering contractors in the Western Cape went insolvent. In the survey and studies conducted by Henry (1994), Rwelamila and Lobelo (1996), insolvency causal factors associated with insolvencies in general construction firms were identified. These factors can be broadly classified into the following categories: operational management, environmental, strategic, personal, cost overruns and technological factors.

While economic factors are worth noting, however, they may be perceived as being external to a firm's operations, failure by firms to recognize that their efforts may lead to the termination of a firm's operations. It has been asserted that the construction industry has distinct characteristics that renders it much more susceptible to failure than others (Ren,1992; Jack, 1985); Kangari, 1988; Davis, 1991). These are:

- Trading within a high uncertain environment e.g. uncertain ground conditions, unpredictable weather and labour availability
- The necessity to price a product before it is produced.
- Competitive tendering as a means of pricing.
- The low fixed capital requirements for entry into market results in market being over capacitated.
- Ease of entry into the civil construction industry given the lack in legislation, stating who may or may not build.

The most prominent cause of insolvency results form inadequate cash resources and the failure to convince creditors of the availability of money (Hsing-hui, 1989; Ren, 1992; Jach, 1985; Tong, 1990). Jach (1985) concurs with this view that even profitable firms could be forced into liquidation because the demand of payment of outstanding accounts could not be met at the critical time despite the fact that the assets are tied in long-term investments. Furthermore, capital is often required to smoothen out the strains on the cash flows resulting from the occurrence of cost and uncertainty Ren (1992)

Escalating materials prices coupled with high interest rates have forced management of construction firms to focus on the control and flow of money as being critical to its survival (Jach, 1985). Moreover the terms of payment stipulated in the contractual conditions and the escalation formulae (on contracts with escalation) require a great deal of expertise to apply, coupled with the task of ensuring promptness in the submission and payment of bills to ensure that the cash flow situation is controlled and improved upon(i.e. preventing the erosion of profit)

Growth in a firm necessitates the injection of the capital, given that at a certain point in time its fund requirement will exceed its fund generation (Hsing-Hui, 1989). The financing of construction projects may be external and internal to an organization.

Internal sources include the contractor's retained earnings from previous projects or investments; depreciation income obtained through depreciating assets, thus the depreciable assets through their sale. External sources include large source of external finance through bank loans and other financing mechanisms. These may be short or long term.

Good management implies an awareness of all factors making up a successful business namely good strategy, marketing, pricing and financial control (Douglas, 1985). Financial mismanagement and management incompetence have been cited among the attributes that lead to the prominence of construction failures (Henry, 1991; Potgieter & Frank, 1990). Potgieter and Frank (1990) assert from their study that, there need to be training amongst entrepreneurs on matters relating to financial management such as bookkeeping, tax planning, budgeting and cash flow management. Additionally, the lack of management information also contributes to the failure of businesses. The use of financial ratios and inter-firm comparisons have been cited as the most useful tools in providing management information which measures the overall effectiveness of any business (ibid). Furthermore, management information permits management to monitor, measure and evaluate performance of the company at certain time intervals, with the attainment of an improvement of profitability in view

OBJECTIVES

The perceived prominent factors in civil engineering construction sector associated with insolvencies are related to operational and strategic issues. The objective of the study is:

- To develop a strategy to promote growth and sustainability in the civil construction industry especially amongst emerging contractors.
- To investigate the principal causes of insolvency amongst civil engineering companies in KwaZulu-Natal. Furthermore, these factors will be tested against the analysis of the liquidators reports obtained from insolvency courts under the auspices of the master of the Supreme Court

METHODOLOGY

In order to obtain the necessary information on the subject matter:

- Relevant literature searches was undertaken to find the causes and possible solutions to the insolvencies amongst Civil Engineering contractors.
- Liquidators reports which were obtained from insolvency courts / liquidator archives were analyzed to tease out causal factors. The reports detail the financial position and the state of the company at the time of the insolvency. Furthermore it furnishes the opinion of the owners and liquidators as to the causes which may have led to its failure. This section does not furnish proof statically but provides a qualitative interpretation. This approach would reflect the true situation without inference being made from statistical information given the small sample. Each case will be individually assessed to determine reasons for its insolvency and the activities that led to this. Years 2000-2005 cases were assessed.
- Conclusions and recommendations are then geretated.

DISCUSSION AND FINDINGS

Case 1

The contractor had his assets valued at R1,435,640.05 whilst his liabilities were R20,743,528.40. The South African Revenue Services (SARS) made an application for the company to windup after it had numerous disputes with the company over payment of VAT, PAYE and company Tax. The long dispute resulted in penalties and interest being added to the substantial amount. The contractor's accountants failed to comply with South African Revenue Services demands.

The liquidation report indicates that the cause of the company's failure appears to have been the lack of financial management in the company. Thus the failure to monitor financial needs of the company affected its operations.

Case 2

The contractor/supplier went insolvent at the initiation of its members. The company's activities did not concentrate on the civil engineering construction but had interest in the building industry sector where the market seemed relatively better. The company supplied a housing development project with substantial amount of stock but was unable to recover the amount which led to large cash flow problems. The Company's assets were valued at R32,155.00 as opposed to its liabilities of R253,660.03. The company had anticipated good business with housing projects taking off. However owners agree that this was a bad decision.

Case 3

The company had subsidiaries who were separate companies. The group of companies committed as the group was suitably placed to take advantage of Government and capital projects but the economy declined against all expectations and prolonged depression in the construction industry. In addition, financial institutions unexpectedly downgraded the credit rating of the group of companies which led directly to its credit facilities being revoked. The government's spending on capital projects declined making the situation worse for the company's cash flow.

The construction subsidiary owned most of the assets in the group of companies. A Notarial bond was registered over all the companies' assets, which Notarial bond was perfected prior to liquidation by short term insurer who had provided substantial guarantees. As a result there were no dividends to any creditors other than secured creditors. The short term insurer applied for company's liquidation. The assets were valued at less than its liabilities and thus the subsidiary was shortly liquidated and all other companies in the group followed. The reason given in the liquidator reports indicate that the main cause of failure is adverse economic conditions. In recession, work and capital is scarce thus good marketing of construction services becomes important.

Case 4

The company was owned by a trust and it went insolvent after an application for liquidation by its members. This was as a result of many disputes amongst the trustees regarding the operations of this company. The insolvency causes of the company were not easy to determine as books and records had not been brought to date. If the members of the company do not have the same goals and vision regarding the company's growth, the results will be negative.

Case 5

The insolvency of the company was initiated by the supplier in 2001. The business had been manufacturing and erecting structural steel frames. The contracts were obtained by way of tender and negotiations.

During the insolvency proceedings the member failed to submit a statement of affairs but income statement recovered highlighted that the company had been operating with losses from 1998 to 2000. The liquidators could not find all necessary information relating to company books and records but the income statement for 1999 suggest that the current asset were valued at R544,121.00, whilst liabilities were R 1,056,654.00. At the time the company was winding up, the supplier was owed R121,600.63, although the monies owed seem minimal, the income statement showed a loan from the bank which made net current liability of R512,533.00. It is unknown whether SARS had any claims as no records were available.

Poor accounting and debt management seem to have led the company to insolvency. Management failed to constantly monitor the financial needs of the company.

Case 6

One of the reasons for the demise of the main contractor was as a result of the sub-contractor abandoning their work on contract no 12507 Slangspruit Development. The sub-contractors abandoned the contract during 1999 claiming the main contractor had defaulted. The matter went to mediation where it was agreed that the main contractor had a valid counter claim against the claim of the sub-contractor. The outcome of the mediation was not accepted by the sub-contractor,

thereafter the matter preceded to arbitration. However the subsequent liquidation of the main contractor had brought a halt in proceedings, as a direct result of the above the contract on the Slangspruit development had to cease, resulting in no further work being completed.

Case 7

The members applied for insolvency. This Close Corperation (CC) only conducted business in joinery, aluminum and glass manufacturing and installation sectors. Initially the company had a sole owner who was deceased in 1999 leaving it to his wife who had limited construction experience. She invited a family member who had eight years of experience in the construction sector from another firm to join the company. They continued to trade and resolved to extend the business operations to the construction sector. The company found it difficult to recover monies from debtors as many denied liability, alleging that they either paid the deceased owner in cash, alternatively that they never received services from the company. It turned out that the company's debtors were more or less equal to its outstanding liabilities at the time. As aforementioned the company became involved in the construction industry in 2002, the first major project for the company was in La Lucia in Durban, KwaZulu-Natal. The client, upon completion of the contract appeared to be unable to pay the full contract price to the CC, leaving an outstanding balance of approximately R 270,000.00. Although this amount was eventually (after approximately eighteen months) recovered, it had serious cash flow repercussions on the business, necessitating the company to incur loans so as to finance its operating costs.

In March 2003 the company undertook a project in the Central Drakensberg, KwaZulu-Natal. Completion of this contract was for various reasons delayed. However, at the end the company was owed an amount of approximately R700,000.00 on the total contract price which the client refused to pay. That gave rise to legal proceedings between the parties. These proceeding were still not solved at the time of the company winding up. This caused a major set back to the company and once more had drastic consequences on the company's financial position and, more particularly, its cash flow situation.

In October 2003, the company started a contract for KwaZulu-Natal Wildlife at Cathedral Peak, KwaZulu-Natal and it suffered severe losses due to factors beyond its control, which once again effected its financial position. During August 2004 the company was subjected to an audit by the South African Revenue Services as a consequence of which the company was advised that its liability to South African Revenue Service amounted to approximately R 1,600,000.00.This assessment was the subject of a huge dispute between the company and the South African Revenue Services. This alleged liability was inclusive of penalties of 200% with interest in respect of an alleged historical tax liability, the origin of which predates the involvement of the current members of the company. The aforementioned alleged liability was grossly overstated; the company conceded being liable to the South African Revenue Services for the amount of R 279,054.93. As a consequence of the company's dispute with the South African Revenue Services many of its suppliers became nervous about further dealing with the company (especially in a small town like Escort). Many of the suppliers closed the company's accounts in their books and insisted on cash transactions and the company's cash flow simply didn't allow it to trade on that basis. In August 2005 the company was found to be commercially insolvent. The company's failure appears to have been the lack of strategic management and had to deal with the non paying debtors which affected its operations.

Case 8

The sole member of the business, a female businessperson applied for liquidation. The principal business of the company was that of building construction. The company was registered in 2001 and commenced trading in March 2001. The owner employed her husband who had experience in building construction. He prepared and submitted the tenders for Government building projects and furthermore was actively involved in the actual construction on site. The business was in a healthy state and it was involved in various projects throughout KwaZulu-Natal. Towards 2005 the company was not regarded as so-called broad based black economically empowered corporation (since its sole member was a white female), was not awarded further Government projects. This situation caused a drastic and substantial decline in the business and turnover, and to such an

extent that the business, towards the beginning of 2006, its cash flow position had depleted to such an extent that it could no longer service its monthly obligations. In April 2006, the business could not trade, as consequence of which the business was closed down.

The business had completed all of its contracts successfully, apart from one contract to construct a school awarded by Department of Public Works, KwaZulu-Natal. The project was approximately 95% complete and once completed an amount of approximately R334,743.80 was due by the Department of Works to the business. Penalties were accruing at a rate of approximately R800.00 per day on this contract and the business had no funds to complete the contract. As a result it was utmost important that the company had to be liquidated and the liquidator appointed so as to negotiate with Department of Works as to how this particular contract was to be finalized without unnecessary penalties accruing. The company's financial position when declared de facto and commercially insolvent had liabilities of R1,808,521.00 and assets (including debtors) amounted to R 1,064,758.30.

The owner of the company did not have the experience in construction and had to rely on an employee to source and manage the work therefore operational experience was lacking and did not have a strategy on how to source work considering Government Black empowerment policies. The company was trading in a competitive environment due to Black Economic Empowerment policies which resulted in many contracts it was awarded had little profit margin and exposed the company's lack of operation and construction management skills. When working with tight profit margins the construction management must be efficient so as to avoid penalties.

In addition certain contracts which were in the pipeline never materialized placing further cash flow problems on the main contractor as no work was being undertaken and hence no cash flowing in. Around 1999 there was a recession in the economy. The competition was high on prices resulting in low margins for most companies which made it difficult to make profit if there were long delays in the completion of work. In bad economic cycles, good all round management is required especially if sub-contractors are used. It is better to strategically plan the use of sub-contractors when tendering especially if the sub-contractor does highly specialized work which the main contractor lacks experience and skills.

TABLE 1: SUMMARY OF REASONS OF FAILURE (Sample size = 8)

Operational Management	
 Undercapitalization 	
 Poor management of Debt 	
 Inaccurate costing and estimating 	Case No 1, 5 and 8 (37, 5%)
 Poor management account 	
 Poor supervision of staff 	
Skills Shortages	
Personal	
 Disagreement with partners 	
Ill health	Case No 4 (12, 5 %)
 Excessive remuneration 	
Strategic	
Lack of demand	
 Reliance on few clients 	Case No 2, 3 and 6 (37, 5%)
 Reliance on few suppliers 	
 Reliance on few subcontractors 	
 Competitive behavior 	
Technological	
 Inferior product 	
 No previous experience 	Case No7 (12, 5%)
 Use of inferior materials 	
Inferior plant	

CONCLUSION

It is apparent from Table 1 that operational and strategic factor appears to be the most prominent causes of insolvencies in civil engineering contracting according to the liquidators reports obtained and was thus consistent with the study hypothesis. Unfavorable economic conditions forces contractors to be:

- Innovative and strategic in sourcing work
- Excellent in managing contracts if the profit margins are low due to competitiveness in the sector.
- Properly prepared to minimize risks e.g. Contractors must undertake contracts in which they have necessary skills and resources to complete.

RECOMMENDATIONS

General recommendations

- Regular training must be provided on management of finance, project, quality and equipment.
- Persuade financial institutions to relax lending conditions to contractors and accept contract documents as a good collateral for government funded projects.
- Contractors must use the services of professionals (Quantity Surveyors, Engineers, Project Managers, Insurance Brokers, Accountants and Lawyers) in managing their businesses and contracts where there is shortage of skills within the their organizations.
- Contracts should lean towards being awarded based on quality than price
- Construction Industry Development Board workshops must be regularly held to serve three purposes:

- Provide a forum for contractors and other stakeholders to discuss common problems affecting the performance of contractors.
- o Enable contractors to interact with each other and share experiences.
- Assist in formulation of contractor development programmes.

Mechanisms minimizing the advent of insolvent situations

Given the highly uncertain environment of the construction industry, most contracts necessitate the use of guarantees which act as security in the event of a contractor/subcontractor defaulting on completing their contractual obligations, thus ensuring that the resulting defects are remedied. De Valence (1994) perceives surety/performance bonds to be the solution to matters which although separate but inter-related and are deemed to be problems areas in the construction industry. The problems relate to: performance guarantees for clients, security for payment of a subcontractor in the event of the principal contractor going insolvent, barriers to entry and improving the capital adequacy in construction by increasing their usable working capital. Such bonds are often packaged to carry the total risk besides those brought about by an Act of God, in the event of any default in the performance of the contract. The project covers the final cost of the project after adjustments for variations, extensions of time etc. Such surety bonds are common in the USA and Australia, whereby the public works departments of those countries require contractors to be covered by such bonds against non-performance. Surety bonds are a new development in South Africa. The issuing of such bonds is handled by insurance companies, whom eligibility for such bonds hinges on the risk rating of the contractors. By bringing third parties into such contractual arrangements, clients are absolved from the Contractor going insolvent. Should the contractor default on performing, the insurance company may recover such loss from the defaulting party through the personal security given as a condition to having access to the surety bonds (De Valence, 1994). The insurance companies acting on the client's interest carry out a regulatory function by evaluating the financial and technical ability of contractors through the use of quality assurance systems (QA). According to Blyth (1995), a well implemented QA of evaluating contracting firms adds to client confidence and provides the practicing organizations with a benchmark by which to measure their performance.

The South African government sees the construction industry as a national asset in the effort towards improving public sector delivery and promoting improved industry performance in the context of South Africa's national development agenda. Thus the failure of construction firms hamper public sectors goal to bring about development and economic growth in the country. Therefore it is critical that that the government supports small contractors to reduce the high percentage of failure within the first five years in operation (Adolwa, 2002).

Government's initiative to create a stable environment for the construction industry started in 2001 when the Construction Industry Development Board (CIBD) was established by Act 38, 2001 to provide leadership growth, reform and the industries' enhanced role in the South African economy. Part of CIDB's mandate will be to drive a macro risk management process for clients and contractors alike regulating the construction industry around a common development agenda under pinned by best practice procurement and project procedures. It will also create a framework of improved performance and sustainable empowerment (CIDB, 2004). Dlugwana *et al (*2002) concurs that this initiative by the South African government is seen by some as a mechanism amongst others, to minimize the advent of insolvent situations in the construction industry.

REFERENCES

Adolwa, M (2002) **Development of small building contractors in Botswana;a critical evaluation**, Unpublished M.sc. Dissertation, University of Pretoria.

Bathory, A (1984) **Predicting corporate collapse**, Financial Times Business Information Ltd, London.

Burnett, R G (1991) **Insolvency and the Sub-contractor**, The Chartered Institute of Building, Occasional Paper No.48.

Blyth, I. (1995) **QA – Sharing the Experience**, The Building Economist, March, p 12.

Davis, R (1991) **Construction Insolvency**. Chancery Law Publishing, London.

Douglas, CR (1985). **An Investigation into Some of the Major Problems Facing Small Building Firms**, Unpublished B.Sc. Dissertation, University of Cape Town

De Valence, G (1994) Financial Failures – What is being done, Building Economist, June

Dlugwana, S, Nxumalo, X, Van Hysteen, S and Rwelamila, PD (2002). **Development and implementation of the South African Construction Excellence Model (SACEM)**, International Conference on construction in the 21st Century held in Florida, USA, 25-26 April.

Henry, A (1994) An Investigation into Factors Associated with Insolvencies in the Building Firms, Unpublished B.Sc. Dissertation, University of Cape Town.

Hsing-hui, L. (1989) **A Fundamental Study of the Contractors Finance**, Unpublished M.Sc. Thesis, University of Manchester, Institute of Science and Technology.

Jach, A.R (1985) **Cashflow Forecasting for the Contractor**, Unpublished B.Sc. Dissertation, University of Cape Town.

Jack, AR (1985) **Cash flow Forecasting for the Contractor**, Unpublished B.Sc. Dissertation, University of Cape Town.

Kangari, R (1988) **Business Failure in the Construction Industry**, Journal of Construction Engineering and Management, no.114, p 172.

Langford D, Iyagba R, Komba DM (1993) **Prediction of Solvency in Construction Companies**, Construction Management and Economics, Vol. 11, pp 317-325.

Potgieter JJ and Frank, AB (1990). **Ration Analysis and Inter-firm Comparisons as a Means of Providing Management in the Small Business Sector**, Publication Series of the University of Zululand, South Africa.

Ramsey, V (1985) What is Insolvency, Building Technology and Management, January, p 21

Ren, H (1992) **Risk Management in Construction Cost and Inflation**, unpublished D.Sc. Thesis, University of Reading.

Rwelamila, PD and Lobelo, L (1996) Factors associated with Insolvencies amongst Civil Engineering contractors in South Africa, University of Cape Town.

Tong, TH (1990) Cash and Flow and Financial Management for the Construction Firm Unpublished M.Sc. Thesis, University of Manchester.