THE IMPACT OF RISK ON THE FINANCIAL PERFORMANCE OF SMALL MEDIUM ENTERPRISES IN THE CONSTRUCTION INDUSTRY IN EASTERN CAPE, SOUTH AFRICA

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Abstract

Risk management has become the driving force for business success due to the everchanging business environment. The purpose of this study is to investigate the impact of the level of awareness and use of risk management techniques on the financial performance. The data was collected from 82 of Small Medium Enterprises (SMEs) owners/managers in the construction industry in Eastern Cape, South Africa. The results show that the level of awareness and use of risk management techniques have a significant impact on the financial performance of SMEs in the construction industry. The study recommends that the government, tertiary institutions, construction industry development board, and SME owners or managers in the construction industry should work together in improving the level of awareness and use of risk management techniques.

Keywords: Financial Performance, Risk Awareness, Risk Management Techniques, Small Medium Enterprises

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1 Introduction

Small, medium and micro entreprises (SMEs) are continuously gaining recognition as vital tools for economic and social development in most countries throughout the world (Abor and Quartey, 2010). According to Abor and Quartey (2010), in the Republic of South Africa, it is estimated that 91% of the formal business entities are SMEs. Fatoki and Garwe (2010) pointed out that SMEs contribute between 52 to 57% to GDP and provide about 61% to employment. Ofori (2009) suggests that SMEs in the construction industry play a crucial role in sustaining and stimulating the economic activities of SMEs in the other sectors of the economy. This clearly shows that SMEs in the construction industry play a significant role in the South African economy and most countries in the world. Ofori (2009) agrees that the development of SMEs in the construction is a critical issue to most countries since they have a major role to play in the provision of adequate and high quality infrastructure.

Despite the above mentioned benefits to the economy, Boateng (2004) points out that SMEs encounter a number of challenges in their endavour of conducting business activities such as lack of management, financial, and marketing skills. It is estimated that the failure rate of SMEs in South Africa is 75% within their first five years of inception (Fatoki and Garwe, 2010). Musara (2012) points out that SMEs also face a challenge of stiff competition from large business firms since they operate in the same business environment. Fatoki and Garwe (2010) argue that lack of education and training are some challenges hampering the growth and sustainability of SMEs. Musara and Fatoki (2011) found out that access to financial resources is the major challenge impeding the survival of most SMEs (SMEs in the construction industry included) in South Africa. Ofori (2009) agrees that SMEs in the construction industry also encounter challenges faced by SMEs in the the other sectors of the economy, however, they also encounter additional unique challenges which are inherent in the construction industry. Such challenges include cost overruns, late completion of projects, inadequate health and safety, poor or incorrect designs and management of construction projects (Flyvbjerg, 2005).

Maas and Herrington (2006) maintain that access to financial resources in the SME sector is one of the major challenges that result in the high failure rates of SMEs in South Africa. Fatoki and Garwe (2010) are of the view that approximately 50% to 60% of credit applications made by SMEs to banks and lending firms are rejected. While the limited access to financing constrains SME growth, it also causes heightened emphasis on the cash flows that a business generates and hence the necessity to reinvest these earnings to bolster growth.

Organisation of Economic Co-operation Development (OECD) (2010) posits that any interruption of expected earnings and any disaster or sudden misfortune will have a significant impact on SME's financial capacity or performance. Bizco Business Consulting (2012) suggests that the survival of SMEs depends on managing risks. Thus risk management techniques become a vital tool for the survival, financial perfomance and success of SMEs. However, Smit (2012) points out that most SME owners (construction industry included) in South Africa are unaware of risks and methods of assessing risks in the business environment. Smit and Watkins (2012) point out that SME owners or managers are ignorant relating to the risks faced by their enterprises. Patsis (2007) argues that studies on risk management in SMEs are limited and also many SME owners think they are not at risk because of the size of their business. Studies on risk management in SMEs are very sketch and hence most SME owners might think that they are not at risk because of the size of their business (Patsis 2007). In light of the above discussion, it is imperative to examine the impact of level of awareness and use of risk management techniques on the financial performance of SMEs.

Therefore, the the present paper reviews the impact of the level of risk awareness and use of risk management techniques on the financial performance of SMEs in the Construction Industry in South Africa. The following section presents the definition of risk, risk management; various risks found in the construction industry and risk management techniques. In addition, theories which support the implementation of risk management techniques are discussed.

2 Literature review

2.1 Risk defined

Cretu, Stewart & Berends (2011), state that risk results from an exposure to the consequences of uncertainty. (Cretu et al., (2011) proposed that in a construction project, risk is a chance of something happening that will have an impact on the objectives of the firm. It includes the possibility of loss or gain or variation from a desired or planned outcome, as a consequence of uncertainty associated with a particular course of action.

Anderson and Terp (2006) define risk management as a process that seeks to eliminate, reduce and control risks, enhance benefits, and avoid negative outcomes from speculative exposures. Therefore, the essence of risk management in business firms therefore becomes to maximise the potential of success and minimise the probability of future losses. Risk management involves planning for risks, analysing risks, developing risk response strategies, monitoring and controlling risks (Kerzner, 2009).

2.2 Types of risks

2.2.1 Compliance risks

Compliance risks refer to risks which arise as a result of failure to comply with the laws and regulations stipulated in a certain field or required by the government (Patsis, 2007). Failure to comply with the laws and regulations can cost business firms severely. In the construction industry, firms have to comply with laws regarding drawing contracts, obtaining tenders and placing contracts, the actual undertaking of the project up to the post completion stage (Uff, 2003). Failure to follow the stated rules and regulations will result in firms losing the contract or paying fines on failure to meet the obligations of the clients and also the government standards.

2.2.2 Productivity risk

Patsis (2007) define productivity risk as the risk which results from operational losses and poor customer service delivery. Such risks may emerge from unavailability of basic production services and operation functions. Such risk may be relevant to all production activities that contribute in some way to the overall delivery of a product or service. In the construction industry, these types of risk may be failure of the contractor to complete the construction project in time, or the contractor may erect a substandard building.

2.2.3 Reputation and loss of customer confidence

This type of risk arises as a result of failing to deliver the required services to the customers. Customers are the most crucial assets of any business hence failure to satisfy them results in establishing a bad image of the business firm and eventually losing customer confidence. This type of risk has an adverse effect on the profitability of the firm (Patsis, 2007). The efficient performance of construction firms is mainly constrained by cost overruns and failure to complete the project at the agreed time (Flyvjerg, 2005). Nassar, Nassar and Hegab (2005) argue that accurate estimation of cost is an important factor for a successful project cost management from the start of planning phase to the completion of construction. Akintoye and MacLeod (1997) states that project managers in the United Kingdom use perceived risk as the likelihood of unforeseen factors occurring. The unforeseen circumstances would impact on successful completion of the construction project. Cost, time, and quality are the factors that constrain the successful completion of the projects.

2.2.4 Financial stability risks

Construction firms offer services to both the private and public sectors. In most cases, these clients may delay to pay the contractor which results in a financial distress. This results in financial stability risk. The contractor will eventually fail to deliver the required services to the clients. Patsis (2007) states that financial stability risks may lead to major financial losses having an impact directly or indirectly on the financial stability of the organisation which results in a failure to achieve stated organisational goals and financial objectives. European Federation of Accountants (2004) states that in the case of micro and small enterprises (with headcount below 50 employees), the risk of insolvency rises significantly when the entrepreneur has insufficient technical and practical expertise to monitor the financial performance of the business alone, or simply has not enough time to do so. Thus it becomes imperative to discuss the concept of financial performance.

2.3 Risk management theories

Below is a discussion of the risk management theories.

2.3.1 Minimisation of the costs of financial distress

With respect to minimisation of the costs of financial distress Smith and Stulz (1985) developed the financial distress arguments for risk management. The theory states that by implementing risk management, a firm can increase its value thereby limiting dead weight losses of bankrupty. This increase in value arises from the reduction in deadweight costs, and an increase in debt capacity, which in turn can benefit the firm through valuable tax shields or a reduction in agency costs of excess free cash flow. Shapiro and Titman (1986) extend the costs of financial distress to include the deterioration of valuable relationships with buyers and suppliers who value long-term access to the firm, for example to provide on-going service. SMEs in the construction industry mainly encounter financial distress since most of them are exposed to late payments by their clients.

2.3.2 Investment policy

A number of authors argue that firms which do not implement risk management strategies will eventually end up pursuing suboptimal investment policies (Stulz, 1996; Froot, Scharfstein, and Stein 1993). Studies conducted by these authors stipulate that there is a strong link between cash flow and investment due to capital market imperfections, typically information asymmetries. When a firm's cash flow is limited, obtaining additional financing is very costly, inducing the firm to scale back value-maximising investments. Risk management programs that break this dependence of investment on cash flow can maximise firm value. Froot, Scharfstein, and Stein's theory suggests that firms with key planned investment programs and costly external financing would be inclined to use risk management to avert the need to access costly external financing to continue these programs.

2.3.3 Managerial risk aversion

Smith and Stulz (1985) and Stulz (1984) focus on managerial risk aversion as a driver of corporate risk management. The theory states that managers whose human capital and wealth are poorly diversified prefer to reduce the risk to which they are exposed. Smith and Stulz's (1985) model predicts that managers with greater stock ownership would prefer more risk management, while those with greater option holdings would prefer less risk management, because shares provide linear payoffs as a function of share prices whereas options provide convex payoffs.

2.4 Risk management techniques

There are various risk management techniques which are used for the identification of risks. However, a number of studies which have been conducted worldwide show that brainstorming is mostly used in identification of risks in the construction industry (Tworek, 2010; Chihuri and Pretorius, 2010). Table 1 shows the different techniques and ways of identifying risks.

The results in table 2 indicate that in terms of project risk identification techniques show that the brainstorming (36%), predomibnates followed by interviews (23%) and the lowest being assumption analysis (2%).

2.5 Financial perfomance

Codjia (2010) points out that a statement of financial performance is an accounting summary that details a business organisation's revenues, expenses and net income. Codjia (2010) further points out that a statement of financial performance is also referred to as statement of profit and loss or statement of income; and a corporation may prepare a statement of financial performance on a monthly, quarterly or annual basis. Ismaila (2011) argues that financial performance measurement can be one of the biggest challenges faced by businesses in the SME sector, especially with regard to their survival, if management is not trained on how to manage finance and measure performance. Mosalakae (2007) highlights that performance measures are the life blood of organisations, since without them, no decisions can be made. However, Mbonyane (2006) argues that SMEs fail because more often than not, cash flow is not properly managed.

Table 1. Techniques, examples and templates for identifying risks

Technique	***Strengths***	***Weaknesses***
Assumptions & constraints analysis	1) Simple structured approach 2) Can be based on assumptions and constraints already listed in project chatter 3) Generate project specific risks	1) Implicit/hidden assumptions and constraints are often missed.
Brainstorming	1) Allows all participants to speak their mind and contribute to the discussion 2) Can involve all key stakeholders 3) Creative generation of ideas	1) Requires attendance of key stakeholders at a workshop, therefore can be difficult to and expensive 2) Prone to Groupthink and other group dynamics 3) May produce biased results if dominated by a strong person (often management) 4) Often not well facilitated 5) Generates non-risks and duplicates, require filtering
Cause and Effect (Ishikawa) Diagrams	1) Visual representation of project promotes structured thinking	1) Diagram can quickly become over-complex
Check lists	1) Captures previous experience 2) Present detailed list of risks	1) Checklist can grow to become unwieldy 2) Risks not on the list will be missed 3) Often only includes threats, misses opportunities
Delphi technique	1) Captures input from technical experts 2) Removes sources of bias	1) Limited to technical risks 2) Depends on actual expertise of expects 3) May take longer time than available due to iterations of the experts inputs
Document review	1) Exposes detailed projects specific risks 2) Requires no specialist tools	1) Limited to risks contained in project documentation
FMEA/Fault Tree Analysis	1) Structured approach, well understood by engineers 2) Good tool support	1) Focuses on threats not so useful for opportunities 2) Requires expert tool not generally available to those except experts
Force Field Analysis	1) Creates deep understanding of factors that affect project Objectives	1) Time-consuming and complex technique 2) Usually only applied to a single objective, so does not provide whole project view
Industry knowledge base	1) Captures previous experience 2) Allows benchmarking against external organizations	1) Limited to what has previously happened 2) Excludes project-specific risks
Influence Diagrams	1) Exposes key risk drivers 2) Can generate counterintuitive insights not available through other techniques	1) Requires disciplined thinking 2) Not always easy to determine appropriate structure
Interviews	1) Addresses risks in detail 2) Generates engagement of stakeholders	1) Time consuming 2) Raises non-risks, concerns, issues, worries etc, so requires filtering
Nominal Group Technique	1) Encourages and allows all participants to contribute 2) Allows for different levels of competence in common language 3) To a large extent, Auto documenting 4) Provides ideal base for affinity diagramming (grouping by risk categories for use in the Risk Breakdown Structure and Root Cause Analysis)	1) Can lead to frustration in dominant members who feel it is moving slowly

Table 1. Techniques, examples and templates for identifying risks

Technique	***Strengths***	***Weaknesses***
Post-project reviews/Lessons learned/Historical Information	1) Leverages previous experience 2) Prevents making the same mistakes or missing the same opportunities twice 3) Enhances the Organizational Process Assets	1) Limited to those risks that have occurred previously 2) Information is frequently incomplete: details of past risks may not include details of successful resolution; ineffective strategies are rarely documented 3) Creative generation of ideas
Prompt Lists	1) Ensures coverage of all types of risk 2) Stimulates creativity	1) Topic can be too high level
Questionnaire	1) Encourages broad thinking to the identify risks	1) Success depends on the quality of the questions 2) Limited to the topics covered by the questions 3) Can be a simple reformatting of a checklist
Risk Breakdown structure (RBS)	1) Offers a framework for other risk identification techniques such as brainstorming 2) Ensures coverage of all types of risk 3) Test for blind spots or omissions	None
Root-Cause Analysis	1) Allows identification of additional, dependent risks 2) Allows the organization to identify risks that may be related because of their common root causes 3) Basis for development of pre-emptive and comprehensive responses 4) Can serve to reduce apparent complexity	1) Most risk management techniques are organized by individual risk. This organization is not conducive to identifying the root causes 2) Can oversimplify and hide existence of other potential causes 3) There may be no valid strategy available for addressing the root cause once it has been identified
SWOT Analysis	1) Ensures equal focus on both threats and opportunities 2) Offers a structured approach to identify threats and opportunities 3) Focus on internal (organizational strengths and weaknesses) and external (opportunities and threats)	1) Focuses on internally generated risks arising from organizational strengths and weaknesses, excludes external risks 2) Tends to produce high level generic risks, not project-specific
System Dynamics	1) Exposes unexpected interrelations between project elements (feedback and feed-forward loops) 2) Can generate counterintuitive through other techniques 3) Produces overall impacts of all included events and risks	1) Requires specialised software and expertise to build models 2) Focuses on impacts but difficult to include the concept of probability

Source: Tworek (2010)

3 Methodology

In order to achieve the objective of paper, the study employed a quantitative research methodology. The total number of SMEs in the construction industry was obtained from the CIBD database. The total active population of SMEs in the construction industry in King William's Town and Port Elizabeth was 133. The sample was calculated using the Rao-soft calculator. The researcher used a confidence level of 95% and a margin of error of 5% and the recommended sample size from the given population was 99 SMEs. A simple random sample of 99 participants was selected from the entire population of 133.

3.1 Research instrument

The study employed a self-admistered questionnaire. The questionnaire employed in the study was adapted from a questionnaire developed by Mursic (2011). The questionnaire has been tried and tested measuring scales for risk management. However, the questions from Mursic (2011) questionnaire were modified to suit the study at hand. The study used both the open ended questions and closed ended questions in order to gather valuable information. A five point likert scale was used for closed ended questions when measuring the difference in risk levels.

Table 2. Risk identification techniques

Risk identification techniques	***Number of respondents***	***Percentage***
Brainstorming	39	36
Interviews	25	23
Delphi techniques	13	12
Documentation reviews	6	6
Risk checklists	19	18
Assumption analysis	2	2
Diagramming techniques	3	3
Total	107	100

Note: Adopted in Chihuri and Pretorius (2010)

3.2 Pretesting, reliability and validation

The questionnaire was pretested using 10 randomly sampled academic staff from the faculty of commerce. The feedback from the 10 respondents was used to make the necessary minor changes to ensure validity of the questionnaire. In addition, SPSS version 17 was used to analyse the gathered data. Statistical tests such as Chi-square-tests and cross tabulation.

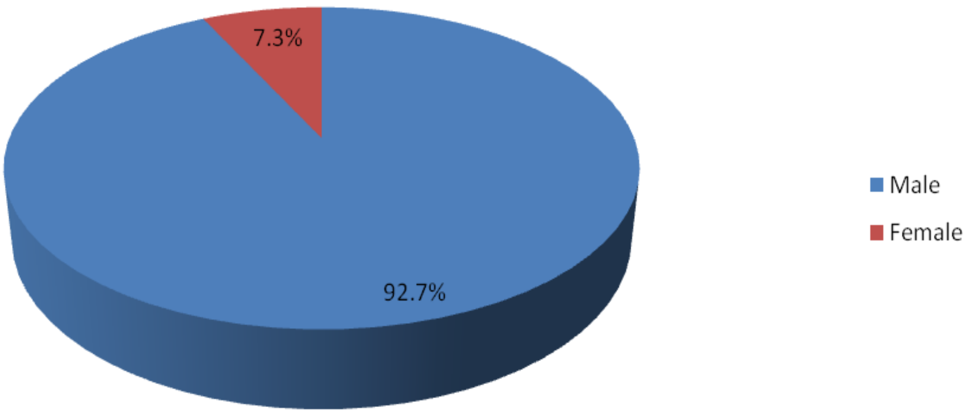
4 Results and discussion

4.1 Response rate

A total of 87 questionnaires were returned by the research participants. However, only 82 accurately completed bringing the effective response rate of the study being 83%. The effective response rate obtained was considered adequate to conduct data analysis and reporting as proposed by Rubin and Babbie (2009) since it is above 50% which is the benchmark for conducting data analysis and reporting.

Figure 1 indicates that males (92.7%) dominate in the construction industry as opposed to females (7.3%). The results are consistent with a study conducted in South Africa by Geertema (2007), who determined that women constitute approximately 10% of employees in the construction industry in South Africa.

Figure 1. Gender of respondents



Geertema (2007) further observes that the percentages of women professionally qualified or who are being leaders in the construction industry is even less. Madikizela and Haupt (2010) conducted a study on factors influencing women's choice of careers in the construction industry in South Africa. They determined that the challenging work environment, the dangerous nature of construction industry, the inability to work and influence a male dominated industry, the discriminatory working environment, and the lack of knowledge of the industry were rated as being medium to high influences on some women choosing careers in other sectors rather than the construction industry. The aforementioned influences act as barriers to women working in the construction industry.

Table 3. Respondent's status in business

Status	***Frequency***	***Percentage***
Owner	69	84.1
Manager	13	15.9
Total	82	100

The findings in Table 3 indicates that 69 of the respondents representing 84.1% of the total respondents surveyed were the owners of the business while 13 respondents representing 15.9% of the total research participants were managers. The results of the survey show that the majority of the research participants were SME owners. The results are consistent with a study conducted by Musara (2010). Musara (2010) determined that 79% of the research participants were SME owners whilst 21% were managers.

The results in table 4 show that 66.7% of the research participants hold bachelor's degrees , followed by diploma holders (25.6%) and honours degree with (18.3%.) The results show that no research participant had qualifications below certificate level. This shows that all of the research participants had some formal education since they possess a certificate, diploma or a degree. The level of education possessed by the research participants assured a relatively high level of awareness and quality of responses from the concepts and questions asked. The results of the current study are consistent with the findings by Agumba (2006), who conducted a study in the Gauteng Province and found out that personnel managing SMEs in the construction industry possessed at least a tertiary qualification.

Table 4. Respondent's level of education

Educational Level	*Frequency*	*Percentage*
Master's Degree and above	5	6.1
Honours Degree	15	18.3
Bachelor's Degree	34	41.5
Diploma	21	25.6
Certificate	7	8.5

The results in table 5 presented show that 42.7% of the respondents specialise in the residential construction, 8.5 % specialise in the institutional and commercial construction industry, 38 representing 46.4% specialise in the industrial construction and 2.4% specialise in the other sectors of the construction industry.

Table 5. Area of specialisation of the business

Area of specialisation	*Frequency*	*Percentage*
Residential	35	42.7
Institutional and	7	8.5
Highway	0	0
Civil construction	0	0
Industry	38	46.4
Other	2	2.4
Total	82	100

The results also show that there were no respondents who specialise in civil and highway construction. The results are consistent with a study conducted by Agumba (2006) who determined that there were no SMEs which specialised in the civil engineering. The findings by Agumba (2006) further show that most SMEs in the construction industry dominated in the home improvement (residential construction) and building construction (industrial).

Table 6 shows that 37.8% of the respondents' firms have been in operation for a period between 1-5 years, followed by 6-10 years with 28%. The results also show that the period above 25 years was the least which occupied 4.9% of the research participants.

Table 6. Responses on the period the business has been in operation (in years)

Period (In Years)	*Frequency*	*Percentage*
1-5	31	37.8
6-10	23	28
11-15	11	13.4
16-20	8	9.8
21-25	5	6.1
Above 25	4.	4.9
Total	82	100

The results further show that 62.2% of SMEs in the construction industry have been in operation for a period of more than 5 years. The results are consistent with findings by Agumba (2006) who determined that 10 out of 15 SMEs investigated in Gauteng have been in operation for a period of more than 5 years. However, the results are inconsistent with the findings by Fatoki and Odeyemi (2010) who found out that the failure rate of SMEs is 75% within the first five years of operation.

The results displayed in table 7 show that 63.4% of the respondents who took part in the research study employed between 1 to 50 employees, 25.6% employed between 51 to 100 employees, 6.1% employed between 101 to 150 employees and finally 4.9 % of the respondents employed between 151 to 200 employees. In relation to the definition proposed by the national small business act of South Africa, 1996 and as amended in 2003, the results show that 63.4% of the research participants are small enterprises and the remaining 36.6% are classified as medium enterprises.

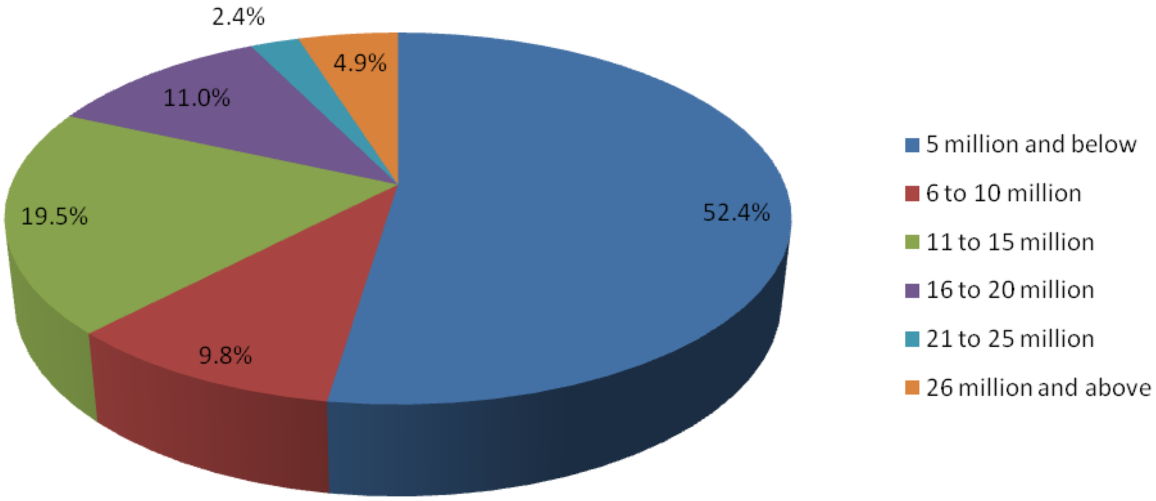
Table 7. Size of the business

Number of Employees	*Frequency*	*Percentage*
1-50	52	63.4
51-100	21	25.6
101-150	5	6.1
151-200	4	4.9
Total	82	100

The findings in figure 2 show that the firms which were surveyed fulfilled the requirements of being classified as small and medium enterprises in line with the definition proposed by the Construction Industry Development Board (CIDB) and the National

Small Business Act of South Africa of 1996. According to the definition of SMEs in the construction industry in relation to annual turnover (small contractors with a maximum turnover of 5 million), 43 of the respondents representing 52.4% of the interviewed contractors belonged the small enterprises category.

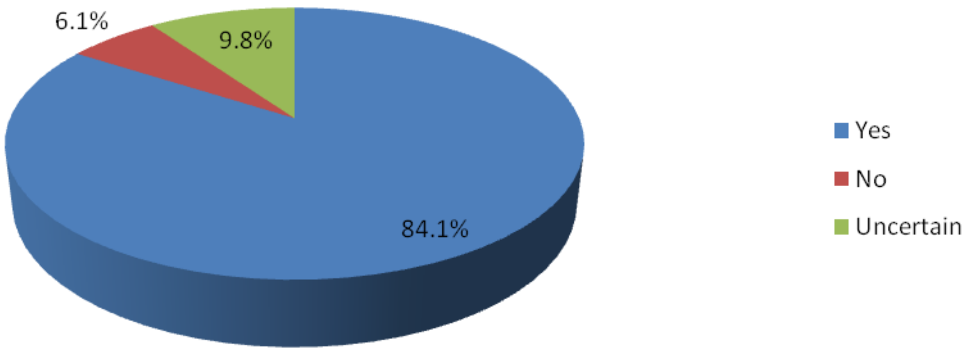
Figure 2. Respondent's range of annual turnover



In addition, 40.3% fell in the medium enterprises category (firms which had an annual turnover between 6 to 20 million). The results further show that 7.3% of the firms surveyed had an excess of the required maximum turnover (had maximum turnover in excess of 20 million). However, these SMEs satisfied the requirements of the definition based on the number of employees. The results are consistent with the results by Agumba (2006) who found out that the majority of SMEs are small contractors.

Figure 3 shows that 84.1% of the research respondents, had risk management policy in their businesses, 5 respondents, which represents 6.1% of the research respondents had no risk management policy, whilst 9.8% of the research participants were uncertain about the availability of risk management policy. The results further reveal that the majority of the research participants (84.1%) had risk management policy in place. The results are consistent with the results of a study conducted by Adnan, Omar and Jusoff (2008) who found out that for companies with formal statement on their risk management, 80% have goals, objectives, strategies and 80% have performance indicators. The results are also in line with the goals of the CIDB which maintains a register of all contractors in order to support risk management in the construction industry (Government Gazette, 2000).

Figure 3. Availability of risk management policy



The results displayed in table 8 shows that the highest mean on communication of risks (3.76) by SMEs in the construction industry falls under the reputation and loss of customer confidence, whilst discussion on legal/compliance risk carries the lowest mean of 3.28. The results further show that all SMEs in the construction industry communicate/discuss the legal/ compliance risks, productivity risk, financial stability risk, financial stability and the reputation and loss of customer confidence risks since all their means are above the neutral (3) point (Musara, 2010). The results are in line with the recommendations proposed by Bernstein, Russo and Laquidara-Carr (2011) who recommend that firms in the construction industry may mitigate risks by communicating with other team members throughout the projects.

Table 8. Communication of risks by small and medium contractors

Nature of risk	*N*	*Minimum*	*Mean*	*Std. Deviation*
Legal/compliance risk	82	1	3.28	1.210
Productivity risk	82	2	3.72	0.920
Reputation and loss of customer confidence	82	2	3.76	0.810
Financial stability	82	1	3.43	1.066
Valid N (listwise)	82			

Table 9 shows that there is a significant relationship between awareness and use of risk management techniques on the financial performance of SMEs in the construction industry since the p-value of 0.00 obtained is less than 0.05. Therefore, a null hypothyesis which states that the level of awareness and use of risk management techniques has no significant impact on the financial performance of SMEs in the Construction Industry in South Africa is rejected.

Table 9. Correlation between level of awareness and use of risk management techniques on the financial performance of SMEs

	Awareness and Use of RMT	*Financial Performance*
Awareness and use of RMT pearson correlation	1	.744**
Sig. (2-tailed)		.000
N	82	82
Financial Performance pearson correlation	.744**	1
Sig. (2-tailed)	.000	
N	82	82

5 Conclusion and recommendations

The results of the study reveal that there is a significant relationship between awareness and use of risk management techiniques on the financial performance of SMEs in the construction industry. The results also showed that there is a low level of awareness and use of risk management techniques by SMEs in the construction industry. In addition, the results also show that the majority of the respondents proposed that the provision of training and seminars on risk management and risk management techniques and the introduction of courses and programmes related to risk management in schools, colleges and universities improves the ways of promoting awareness and use of risk management techniques. Based on the results obtained, the following recommendations were made:

5.1 SME owners and managers

The results obtained from the empirical study revealed that SME owners and or managers have a low level of awareness and use of risk management techniques. Hence, SME owners or managers should make use of risk management programmes, short courses or lessons provided by tertiary institutions and schools in order to improve their level of awareness and use of risk management techniques. In addition, SME owners and managers should encourage employees to take advantage of risk management programmes offered by schools and tertiary institutions to improve their level of awareness and use of risk management techniques since they are the ones mainly involved in executing construction projects and are at risk often. The improved level of awareness and use of risk management techniques will also improve the quality of the construction projects.

5.2 Construction Industry Development Board (CIDB)

The CIDB should develop and enforce a universal auditing mechanism which should be used by all contractors. If any non-compliance cases are identified, fines and penalties should be charged to defaulting parties. In addition, The CIDB should employ individuals who are responsible for assessing the compliance and non-compliance of laws and legislation formulated by the CIDB. The employees will also have a mandate of conducting site inspection to ensure that contractors are implementing risk management techniques.

5.3 The government

The government should continuously work with the CIDB in enforcing rules and legislation which improves compliance in risk management. In addition, the government should offer incentives to contractors implementing risk management techniques and also promote programmes which improve the level of awareness and use of risk management techniques.

5.4 Further education and training institutions and tertiary institutions

Further education and training institutions and tertiary institutions should play a critical role in providing training on awareness and use of risk management techiniques since they possess the much needed expertise and resourses. Furthermore, awareness campaigns on the importance of risk management techniques should be launched by institutions of higher education.

6 Limitations and areas of further research

Due to time and budgetary constraints, the study at hand only focused on SMEs conducting construction activities in King William's Town and Port Elizabeth in the Eastern Cape Province of South Africa. Care should be exercised in the interpretation and the application of the results of this study and the generalisation of the findings to the whole of South Africa. Therefore, future research studies should include other provinces and other countries. The impact of education and training on improving the level of awareness and use of risk management techniques may also be examined in future studies.

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