INTERNAL CONTROLS SYSTEMS AND THE RISK PERFORMANCE CHARACTERIZING SMALL AND MEDIUM MANUFACTURING FIRMS IN THE CAPE METROPOLE

J. Dubihlela
Cape Peninsula University of Technology
dubihlelaj@cput.ac.za

Lisa Nqala
Cape Peninsula University of Technology
nqalalisa@gmail.com

—Abstract—

In recent years, manufacturers are refocusing and intensifying their keenness on the nature of risks within their operational environments. They are also concerned about their risk exposures. Numerous stakeholders, including government, credit-rating agencies, stock exchanges, occupational agencies and institutional investors are increasing their call for significant focus on effective risk oversight and optimised risk performance. For the manufacturing firms, the primary focus is production which exposes them to complex risks. This study investigates how small and medium manufacturers are optimising their internal control systems in order to mitigate risk. The study seeks to understanding how internal controls are utilised by manufacturing SMEs to mitigate and prevent risks, and how internal controls are implemented by manufacturing SMEs. The study is conducted on selected manufacturing SMEs in the Western Cape, South Africa. The study follows a qualitative research paradigm, adopting case-based interpretive approach employed to support the data collection, data analysis and data presentation methods. Manufacturing SMEs that are in process of implementing effective internal controls within their businesses would have a better understanding of the importance and value of preventing or mitigate risk. An analysis of interviews with managers and owners from manufacturing SMEs indicates that businesses that often create contingency risk plans, and implement
internal control systems are less exposed to risk. Their risk-buffer strategies towards perceived risks helps them achieve higher risk performance.

**Key Words:** Risk control, internal controls systems, risk performance, manufacturing SMEs, South Africa

**JEL Classification:** M4

1. INTRODUCTION

Internal risk control is important for all forms of businesses and is a highly pertinent issue within the domain of risk management since the beginning of the 21st century. This has been propelled by a series of large corporate scandals and failures (Crouch, 2012). The most well-known accounting scandals over the past decades have probably been the cases of Enron and WorldCom (Ndege, 2015). In the aftermath of the Enron debacle, it turned out that auditors had long neglected several internal control deficiencies which contributed significantly to the downfall of many companies (Cunningham & Harris, 2006). Manufacturing SMEs are regarded as vulnerable during their expansion phases and less likely to have in-house capabilities for sound control and risk management systems (Jocumsen, 2004).

SMEs in manufacturing usually consider risk management to be for 'large businesses’ only. Although this subsector is known for its role in South Africa’s socio-economic and sustainable development, their survival is still an issue as they are still faced by high rate of failure over the years (Ndege, 2015). The enhanced knowledge of internal controls is noted for their contribution on the growth or survival of the business or organization as they are known for their ability to detect and deter risks.

Small and Medium Enterprises contributes in South African economy and also in other countries. Small and Medium Enterprise (SMEs) sector promises significant benefits to South African economy. Nimrod (2014) confirmed that South African Manufacturing SMEs are still considered the key drivers of GDP growth and direct employment, contributing immensely to the fight against poverty through providing the much needed jobs and consumer products. According the American
Institute of Certified Public Accountants (2008) study revealed that manufacturers has a most reported fraud cases and it last for 2 years before they are detected due to lack of effective internal controls and implementation of anti-fraud controls.

Several research studies have been conducted to understand why SMEs do not survive despite all the established supporting programs. Jocumsen (2004:659) agreed that although SMEs have many contributions, large number of SMEs is failing. This study will investigate how manufacturing SMEs are performing on implemented internal controls on risk mitigation and prevention in the Western Cape. The study will attempt to bring a broader understanding the impact of effective of internal controls on risk performance which is risk mitigation and risk prevention on SMEs.

2. RESEARCH PROBLEM
In spite of the notable contribution made by manufacturing SMEs, particularly in emerging markets such as South Africa, sustainability remains a major challenge. One root cause of the failure is the absence of adequate and effective internal control systems to prevent and mitigate a variety of risks that operations falling within small businesses face. It could be factual that manufacturing SMEs industry is perceived to be exposed to various risks due to its complex nature. Therefore, the research problem to be investigated within the scope of this study reads as follows:-

The internal controls systems within small and medium manufacturers in the Cape Metropole are not effectively mitigating and preventing risks, potentially exposing themselves to potential operational and environmental hazards.

3. LITERATURE REVIEW
3.1 Overview of Manufacturing SMEs
The research study focused on SMEs in the manufacturing sector. The manufacturing sector is known for creating much needed jobs especially for unskilled and semi-skilled labour compared to other sectors. Unskilled and semi-skilled job-seekers are prone to suffer the most from poverty and yet they normally struggle to find jobs (Al-Shboul, 2017). Manufacturing industry is known for creating more jobs for uneducated and semi educated unlike other
sectors (Jennings, 2015:1). According to Small Enterprise Development Agency (2012), manufacturing is a process that involves equipment, machines, labour to produce goods and services for use and for sale as semi-finished goods or finished goods, locally and abroad. At the back of this, different competing threats seem to be exposing the subsector; from shortening product life cycles, increasing involuntary integration into global value chains, the demands of dynamic manufacturing environments, and the highly sophisticated pervasive emerging risks requiring agile internal risk control tactics (Rittenberg et al., 2012). These risks are more prevalent for manufacturing SMEs whose value chain is regarded more rigorous and extensive than service oriented SMEs (Jitpaiboon 2014).

The definition of SMEs is still a debate as different authors have tried to give different definitions. Abor and Quartey (2010:219) mentioned that some researchers had tried to define SMEs by size. Some have tried to define SMEs by legal status, type of production, capital assets, skill of labour and revenue (Jitpaiboon, 2014). In South Africa there is specific definitive definition for SMEs except an extraction from the existing statutory instrument. Therefore, for this study researchers have used the classification of National Small Business amendment Act (26 of 2003) of South Africa which classifies SMEs according to standard industrial sector and sub sector classification, size of class, equivalent of paid employees, turnover and assets value (Maree, 2007).

The importance of SMEs in economic growth and socio-economic development cannot be unnoticed as they are the key drivers of the industrial development and economic development compared to other sectors (Rittenberg et al., 2012). The Word Bank (2015) posited that SMEs play a huge role on economic growth, especial in emerging markets and developing economies such as South Africa. The advantage that manufacturing SMEs have is that they are flexible to respond to market conditions compared to large companies (Abor & Quartey, 2010:223). Manufacturing SMEs’ ability to contribute more than other firms set them apart, drawing more attention from both academics and the policy makers. Increased operational effectiveness of SMEs is obtained by applying internal control systems in a more comprehensive and integrated manner to support organizational processes and enhance risk prevention and mitigation (Bakar & Jaafar, 2016). Operationalization of such internal control systems could lead to a higher level of
risk performance, resulting in limited risk exposures as well as manged costs that are necessary in terms of their value creation (Rittenberg et al., 2012). The following section will discuss the components of internal control systems.

3.2 Components of Internal Control Systems

Manufacturing SMEs’ internal control systems consist of policies, procedures and activities that strive to promote operational efficiency, reducing risk of asset loss (Ramukumba, 2014). Internal control systems help ensure the reliability of operational reports, financial reports and compliance with policies, procedures and regulations Committee of Sponsoring Organizations of the Trade Commission (COSO, 2013). Internal control thus covers a wide range of company’s activities and has a crucial role in managing the risks and challenges companies face on a daily basis. Different organisations emphasize different components of the internal control systems in their businesses, in accordance with their specific needs (KPMG, 2013). Ramukumba (2014) supports the COSO (2013) report that defines internal control systems as procedures established by organisational leadership of an organization with the primary objective to give a fair assurance on the achievement or organisational goals. The three main operational goals are: safeguard of assets, compliance with law and regulations and completeness and accuracy of financial records.

The components of internal control systems can be illustrated by way of a diagram in Figure 1.

*Figure 1: COSO Internal Control Framework (Source: COSO, 2013)*
3.2.1 Control Environment

Strong internal control systems are normally girded by strong risk control environments (COSO, 2013). By its nature, a control environment forms the basis of any system of internal controls. It influences the manner in which the entire business is managed, controlled and operationalised (Oseifuah & Gyeke, 2013). Furthermore, the internal control environment is about those charged with governance (including management) setting an appropriate tone at the top, demonstrating their attitude and commitment towards internal controls (COSO, 2013). Control activity is the most important aspect as it is established and managed by management and it set the attitude towards internal controls in the organization (Puttick & Van Esh, 2007).

3.2.2 Risk assessment

Employees, both managerial and operational, charged with governance and implementation of control activities should identify risks from internal and external sources (IIA, 2011). Risk assessment involves a process and procedure when the organisation goes through identification and analyses of all risks associated with the ability to achieve organisational goals (Cascarino & Van Esch, 2007). Management assesses risks as part of designing and operating the internal control system to mitigate risk (Hayes et al., 2000:259), as well as a monitoring activity (Oseifuah & Gyeke, 2013). Risk is an unwelcome eventuality which must be mitigated as soon as possible (Barlaw et al., 2000).

3.2.3 Control activities

Control activities can be categorized into directive and prevention control activates (Jackson & Stent, 2014), they involve foreseeing the likelihood of problems occurring before they actually happen; and implementing a way to prevent those (Ndenge et al., 2015). There various acceptable tools, both manual and automated, that can help prevent or reduce the risk exposures (Oseifuah & Gyeke, 2013). Risk performance of internal control systems is meant to mitigate any risks that can impede accomplishment of mission of manufacturing SME (Jitpaiboon, 2014).
3.2.4 Information and Communication

Essential information, including risk and control information, should flow freely within manufacturing settings. Information should be communicated to all business stakeholders to ensure that internal controls are operating effectively (Cascarino & Van Esch, 2007). Communication with the other related parties outside and inside the business, it is very important for effective internal controls (Ndenge et al., 2015:49).

3.2.5 Monitoring

Monitoring as a component of internal control framework is all about follow-up checks progress of internal control structure in the organisation (Ndenge et al., 2015). It is a requirement that internal control systems be entirely monitored to ensure operational effectiveness (risk performance). This process of reviewing and monitoring the controls must be done regularly on an on-going basis. Cascarino and Van Esch (2007:54) mention that to ensure effective of internal controls it is important that internal controls system need to be checked to assess the value of its overall performance extra time.

Furthermore COSO (2013) identifies the following objectives of internal control systems:

a) Operation - achievement of entity’s objective and safeguarding of assets.

b) Reporting - internal and external audit.

c) Compliance – law, rule and regulation

3.3 Risks Performance

Risk performance refers to the level of effectiveness of internal risk control systems to monitor, mitigate or prevent the occurrence of risks within the operations of an organisation (Rittenberg, et al., 2012). In other terms, risk performance of an organisation is shown by the frequency of effective control activities (Ndenge et al., 2015), as reported by the monitoring component of the internal control system. Jackson and Stent (2014) stated that framework for risk assessment may consider risk in the following categories:
o **Strategic Risk**: risk connected with adopting or changing entities strategy, i.e. expansion of the manufacturing facility, entering a new market on foreign country, acquiring a new company.

o **Operation risk**: risk connected to health & safety, and the environment for chemical manufacturer.

o **Financial risk**: risk that impact the cash flow usually when an entity change from cash flow like when an entity changes from cash sale to credit sale.

o **Information risk**: risk related with introducing electronic funds transfer for payment of creditors or trying to introduce online payment.

o **Compliance risk**: risk associated with the decision made by the business that could lead to breaches of legislation, related to polluting the environment, taxation, etc.

Casasian and Van Esh, (2007) defines risk as the like hood of loss. Businesses are more exposing to different kind of risk such as: regulatory or compliance risk, operational risk, errors that could possible lead to financial loss or negative publicity (KPMG, 2013).

### 3.4 Internal Risk Control Effectiveness

Internal risk control effectiveness is guided by internal control activities (Jackson & Stent, 2014:4). Control activities are the tools, both manual and automated, that help prevent or reduce the risks that can impede accomplishment of the organization’s mission (Crouch, 2012). Donelson, Ege and McInnis (2015) mentioned that ineffective internal controls open a room for managers to involve themselves on fraudulent activities mostly in entities with weak internal controls. Njeri (2013:3) stated that internal controls are essential part of the business financials and entities compliance.

Effective internal controls contribute to the efficient and efficiency of the operation by mitigating and preventing risks like misuse of assets, wastage, and preparation of unreliable financial reporting (Njeri, 2013). For effective internal risk control, the categories of control activities are seen to involve measures that safeguard the assets of the business, prevent and detect fraud and error, ensure the
accuracy and completeness of accounting records and ensure the timely preparation of reliable operational information (KPMG, 2013).

4. RESEARCH METHODS

4.1 Research approach

The study followed a qualitative case study based research paradigm. Qualitative research allows complicated and dissimilar world views under investigation to be explored and represented. Case research has proved to be a well-used and powerful method on offer to researchers on risk control (Sunjka & Bindeman, 2011).

4.2 Sampling technique

For the purpose of this study purposive convenience sampling was used. In the case of purposive sampling only the sample that would provide the data needed to achieve the goal of the study was selected. According to Marre (2007:178) purposive sampling is a sampling of population who are most likely to provide best information to satisfy the research study’s goal. Population of the study is the owners and managers of the SMEs.

4.3 Data collection

The data were obtained through in-depth interviews, and were analysed in terms by way of thematic approach to help solve /or mitigate the research problem at hand. The study was conducted in the selected manufacturing companies in the Cape metropole, for the purpose of qualitative research approach only five manufacturing companies were approached, observing interviewee willingness to participate. The interviews lasted between 30-75mins with the respondents that were given freedom to speak about their internal risk control scenarios guided by semi-structured questionnaire. An interview can be defined as a meeting between of people, where the interviewer is asked questions to collect information and getting to know more about the interviewer (Marre, 2007:67). This approach helped provide a natural potential for unexpected directions.
5. DATA ANALYSIS AND RESULTS

Using data collected from a convenience sample of senior operations managers and chief audit executives in manufacturing SMEs, data collected was expected to be credible. This was also enhanced by the use of extensive literature review and theoretical enquiry to construct the semi-structured instrument (Crouch, 2012), as well as the flexibility and semi-structured nature of interviews that afforded respondents the freedom to talk, explain or about the subject matter. Interviews enabled the conversation to flow more naturally in potentially unexpected directions, guided by explicitly explained risk control elements. Questions sought to elicit any risk management practices, and mitigating actions that were being employed by the manufacturing SMEs. The use of recorded discussion in-depth interviews enhanced the credibility of the findings.

The analysis consisted of interpretive classification of risks into categories of risk performance dimensions based on the definitions of the categories (COSO, 2013); breaking down the data to look for themes, sequences, processes, patterns and wholes as guided by the literature review.
Table 1: Profile of Respondent SMEs

<table>
<thead>
<tr>
<th>Name of Company</th>
<th>Respondent/Interviewee</th>
<th>Age of Company</th>
<th>Type of manufacturing</th>
<th>Type of product manufactured</th>
<th>Key Customers</th>
<th>Company Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metals P/L</td>
<td>Executive Director Operations (ED ops)</td>
<td>+10yrs</td>
<td>Manufacturing metal</td>
<td>Hose clamps, metal clips &amp; springs, pressings</td>
<td>Nation-wide &amp; international distributors</td>
<td>Medium</td>
</tr>
<tr>
<td>Tool Engineering P/L</td>
<td>General manager (GM)</td>
<td>+5yrs</td>
<td>Standard and Customised tools</td>
<td>Specialised tooling for bending and cutting sheet metal</td>
<td>Local &amp; international end users</td>
<td>Small</td>
</tr>
<tr>
<td>Metal Sheet P/L</td>
<td>Director (owner)</td>
<td>+6yrs</td>
<td>Customised Batch Manufacturing</td>
<td>Sheet metal products, construction steel</td>
<td>Building Contractors &amp; SOEs</td>
<td>Medium</td>
</tr>
<tr>
<td>Container P/L</td>
<td>Executive Director (owner)</td>
<td>+31yrs</td>
<td>Container builder</td>
<td>Specialised container tanks</td>
<td>Gas &amp; liquid distributors, international</td>
<td>Medium</td>
</tr>
<tr>
<td>Grandson Mason P/L</td>
<td>Production managers</td>
<td>+13yrs</td>
<td>Leather manufacturing</td>
<td>Leather handbags, shoes, and accessories</td>
<td>Local retailers and regional retailers</td>
<td>Small</td>
</tr>
</tbody>
</table>

Table 1 provides a list of manufacturing SMEs that were identified in Cape Town and selected on the basis that they satisfied the predetermined criteria of being classified in terms of the National Small Business Act 1996 (2003) of South Africa as SMEs in the Manufacturing sector. The respondents were identified from operational manufacturing SMEs operation within Cape Town, South Africa. Because the informants/respondents were quite familiar with the nature of research on internal risk controls and the associated terminology, the analysis used was largely interpretive. To convert the surveyed data into relevant useful research information, the interview data was carefully decoded and subjected to vertical thematic analysis of each interview transcript. The data was then
subjected to a rigorous process of summarising and paraphrasing in order to dissect the risk categories and sub-categories. These were thematically consolidated and tabulated in Table 2.

Table 2: Risk Performance Themes

| Operational risk | ✓ Unexpected major operational hazards, e.g., data loss in the process |
|                 | ✓ Employee absenteeism/mismanagement, politics |
|                 | ✓ Machines sometimes malfunction/breakdown |
|                 | ✓ Malfunctions of measuring instruments/equipment |
|                 | ✓ Unexpected work-in-progress, tools/equipment failure |
|                 | ✓ Input material shortages, spare parts, tool shortages |
|                 | ✓ There are sometimes problems with handling material |
|                 | ✓ Unexpected system failure, accidents or injuries |

| Supplier-related risk | ✓ Unexpected delay in supply by the suppliers |
|                       | ✓ Fluctuations in supply quantities |
|                       | ✓ Competition within the supply market |
|                       | ✓ Shortage of skilled labour and employee deficiencies |
|                       | ✓ Financial obstacles from financiers |

| Customer-related risk | ✓ Key account procurement goes down |
|                       | ✓ Key customer withholds payments or defaults on payment |
|                       | ✓ Under entry system not working for a week |
|                       | ✓ Customer orders delayed by company |
|                       | ✓ Credit card information stolen from hacked e-commerce system |
|                       | ✓ Demand volatility, up or down creating mismatch with production |
|                       | ✓ Company’s inventory/accounts system goes down |

| External environment risk | ✓ Government regulations and policies |
|                          | ✓ Politics and legal framework |
|                          | ✓ Shareholder influence in risk provisioning |
|                          | ✓ Unexpected natural disasters |
|                          | ✓ Economic risk factors, exchange-rate, interest rates etc |
|                          | ✓ Socio-cultural factors |
|                          | ✓ Technological changes |

6. DISCUSSION OF RESULTS

Research investigation covered different kinds of manufacturing SMEs in the SMEs sector, showed that the varied SMEs were all affected by similar risk issues in their differing categories. This study categorised the risks into four (4) thematic categories that confirm the findings of Sunjka and Sklar-Chik (2012) whose study was also carried in South Africa under different conditions. Although the study by Sunjka and Sklar-Chik (2012) was focusing on dimensions of supply chain risk,
there is some consistency with identification of specific risks emanating from the identified four domains in table 2.

The findings confirm the replete existence operational risks, customer-related risks, supply-related risks and external environmental risks within Manufacturing SMEs in South Africa. Results confirmed the multiplicity of factors that, if not controlled could have adverse impact on the survival and performance of manufacturing SMEs. Manufacturing organizations encounter hazards and frequent setbacks, such as machine breakdowns, material shortages, accidents and absenteeism that make the system unreliable and inconsistent (Oseifuah & Gyeke, 2013).

It was evident from results that certain risks in the internal, external and environmental categories had specificity of risks related to type of products that SMEs produced (Crouch, 2012). This may be because such specific risks impact SMEs more than larger companies due to the resource and capacity constraints faced by SMEs. The results also support Sunjka and Sklar-Chik (2012) who argued that SMEs have no contingent internal risk control tools to assist in risk management. In the event of risk occurrences, manufacturing SMEs resort to impromptu control activities to counter their risk exposures. Although it is not reported in tabular form, the findings also confirmed the existence of porous internal risk control systems within manufacturing SMEs.

When combining customer-related risks with external environment risks, results show that their root causes emanating from outside the control of the business (IIA, 2011). These include escalating cost of labour, the increasing tax burden, crime and corruption, unstable energy supplies, and non-existent quality business structure in poverty nodes. Risks of employee theft and management misdeeds did not feature much in the respondents reports for the surveyed manufacturing SMEs (Ndege, 2015). This may indicate an absence of these issues or a reluctance of the respondents to talk about sensitive matters.

7. CONCLUSION

Successful organizations continuously optimise risk environments, operational dexterity, and response agility, build resources and are capable of quickly shifting risk strategies to moderate exposures. Determining the right risk control activities
takes a combination of perspective of the current state and clear risk tolerance levels, requiring optimised levels of risk control dexterity and operational innovativeness (Oseifuah & Gyeke, 2013). Effective risk performance requires a shared sense of purpose and a risk control culture that is stable enough to ground the organization. This will be enabled by a robust risk control environment that clarifies roles and firm differentials.

Manufacturing SMEs are under tremendous pressure from the dynamic and highly competitive business environment, rapid technological development, and continuous changes in operational demands (IIA, 2011). Components of internal risk control can be designed to mitigate risks and may ensure the reliability of performance reports and compliance with laws, policies and regulations. Risk management activities protect the organization, its people, assets, and profits, against the physical and adverse consequences, by planning, coordinating and directing the internal risk control and the risk mitigation activities.

8. IMPLICATIONS

The importance of the internal control systems is emphasised by the Institute of Internal Auditors (IIA, 2011) when stating that the most organisational failures emanate from poor risk performance of internal control systems. There is a great need for optimisation of internal risk control systems to mitigate and prevent risk exposures for operational efficiencies of manufacturing SMEs. With unavoidable risk-mitigation approaches to consider, managers of manufacturing SMEs are recommended to consider ‘risk performance strategy’ by creating a shared, organization-wide understanding of internal risk controls. Managers could also consider general risk-mitigation approaches to the circumstances of their organisations through constant monitoring of control environments and tailoring internal risk control systems. Managers and owners of manufacturing SMEs must acknowledge the need to prioritise the ‘performance’ of their internal risk control systems for them to survive uncertain and turbulent operational conditions within emerging markets. Manufacturing SMEs must strive to build organic and nimble enterprises that can adjust their control activities to any unexpected or sudden changes in the environment both rapidly and efficiently. Such organisations that take special care to accurately sense what is going on with internal risk control...
environment will potentially exhibit favourable risk performance and sustainable operations.

9. LIMITATIONS OF THE STUDY

Although this study has some interesting findings, it also has a methodological limitation in that it adopted only a qualitative research approach focused mainly on manufacturing SMEs in Cape Town, South Africa. Further studies should consider other sectors in other parts of South Africa. Future research could consider using triangulation methodology where a quantitative design could be used together with qualitative design to generate rich ideas and explanations. Another limitation could be the fact that the method of data collection relied on accurate introspection of responses that are subject to some degree of subjectivity. Despite these limitations, the study advances knowledge regarding risk performance of internal control systems for manufacturing SMEs, considering that a noticeable dearth of prior research on this subject within emerging markets.

10. REFERENCES


COSO (Committee of Sponsoring Organizations of the Trade Commission). (2013), “*Internal control integrated framework: Executive Summary*”, Jersey City: COSO.


Ndege, O. (2015), “Effect of Internal Control on Fraud Detection and


