



**THE EFFECTIVENESS OF INTERNAL CONTROL ACTIVITIES TO COMBAT
OCCUPATIONAL FRAUD RISK IN FAST-MOVING CONSUMER GOODS
SMALL, MEDIUM AND MICRO ENTERPRISES (SMMEs) IN THE CAPE
METROPOLE**

by

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ABSTRACT

South African Small, Medium and Micro Enterprises (SMMEs) play an important role in the stimulation of the national economy. However, according to previous research studies, these business entities have one of the worst sustainability rates in the world as approximately 80% of South African SMMEs tend to fail after being in operation for only three years. Taking the weak sustainability rate of these business entities into account, further studies suggest that South African SMMEs operate in a harsh economic environment, which, in turn, creates a breeding ground for risks to realise in, including that of occupational fraud risk. According to scholarly literature, the occurrence of occupational fraud risk is believed to stem from the utilisation of inadequate and/or ineffective internal control activities – South African SMMEs, in general, are believed to make use of inadequate and/or ineffective internal control activities. For this research study, focus was placed on investigating the effectiveness of internal control activities used within South African fast-moving consumer goods (FMCG) SMMEs to combat occupational fraud risk. This was achieved by conducting a literature review (see Chapter 2) to assist in the development of a survey to, in turn, conduct empirical research by collecting quantitative data from respondents (see Chapter 3). All relevant quantitative data gleaned were analysed using both descriptive statistics and inferential statistics (see Chapter 4). Based on the analysed data, it was found that although implemented internal control activities in sampled South African FMCG SMMEs were customised, a few internal control activities assisted in the combating of occupational fraud risk while the bulk of internal control activities did not assist in combating occupational fraud risk. Stemming from the study conducted, the inference was made that the occurrence (realisation) of occupational fraud risk may be exacerbated by the implemented internal control activities in South African FMCG SMMEs due to their ineffectiveness.

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LIST OF ABBREVIATIONS

Abbreviation	Meaning
ACFE	Association of Certified Fraud Examiners
COSO	Committee of Sponsoring Organisations of the Treadway Commission
DTI	Department of Trade and Industry
FMCG	Fast-Moving Consumer Goods
GARP	Global Association of Risk Professionals
GDP	Gross Domestic Product
IIA	Institute of Internal Auditors
IRM	Institute of Risk Management
OFR	Occupational Fraud Risk
PwC	PricewaterhouseCoopers
SEDA	Small Enterprise Development Agency
SMME	Small, Medium and Micro Enterprise

CHAPTER 1: INTRODUCTION TO THE RESEARCH STUDY

1.1 BACKGROUND TO THE RESEARCH PROBLEM

In 1995, Small Medium and Micro Enterprises (SMMEs) were recognised for the first time through the Department of Trade and Industry's (DTI) National Strategy for the Promotion of Small Business Entities (DTI, 1995:7). Despite the fact that a large number of SMMEs were operating in South Africa prior to 1995 (Visagie, 1997:660-667), SMMEs were formally acknowledged in 1996 through the publication of the National Small Business Act No. 102 of 1996 (South Africa, 1996). In this Act, SMMEs are viewed as small, separate and distinct business entities, together with their branches and/or subsidiaries which are owned and/or managed by one or more owner(s), which conduct their respective business in any sector and/or sub-sector of the economy of South Africa (South Africa, 1996:3). Essentially, SMMEs play an increasingly vital role in the stimulation of the South African economy as they are responsible for employing roughly between 61% and 90% of the total national workforce, while also contributing between 52% and 57% to the South African Gross Domestic Product (GDP) (Africagrowth Institute, 2009; Rankhumise, 2009:8; Ladzani, 2010:68; Swart, 2010:10; Booyens, 2011:70; Tshabalala & Rankhumise, 2011:108; SEDA, 2016). When taking into account that at least 90% of all operating South African business entities are regarded as SMMEs (Swart, 2010:10; Mouloungui, 2012:1; SEDA, 2016), it is not surprising that their potential to add socio-economic value renders them the driving forces of economic growth in the country (Berry et al., 2002; Bell et al., 2004:24; Mabesele, 2009:9; Amra et al., 2013:3; Chimucheka, 2014:783).

Despite the above, South African SMMEs are known to have one of the worst sustainability¹ rates in the world (Fatoki, 2014:1; Wiese, 2014:3). The latter sentiment is supported by research (Cant & Ligthelm, 2002:2; Van Eeden et al., 2003:13; SEDA, 2010; Adeniran & Johnston, 2011:Online; Chimucheka, 2013:158; Adedokun, 2014:18;

¹ Sustainability alludes to the capacity in which a business entity continues to remain in operation to conduct business for an extended period, with the intention to achieve its relevant objectives, which, in turn, may pertain to the execution of social responsibilities, environmental responsibilities and/or economic responsibilities, commonly referred to as the triple bottom line (Goel, 2010:27; Alhaddi, 2015:7).

Mthabela, 2015:46), where it was found that 80% of South African SMMEs fail within their first three years of existence. This dispensation is often blamed on economic factors which relate to, inter alia, high interest rates, government legislation, negligence of management, and ineffective internal control (Ahmad & Seet, 2009:98; Valdiserri & Wilson, 2010:70). These economic factors have a direct influence on the economic landscape, as well as the economic growth, of any country (Van Eeden et al., 2003:14; Radas & Božić, 2009:439-440). When taking into account the harsh economic landscape of South Africa², it becomes apparent that these economic factors encompass risks that, once realised, can adversely impact on the overall sustainability of South African SMMEs (Musarurwa, 2012; Jiang & Li, 2010:214; Bruwer, 2016:5).

More often than not, the term 'risk' refers to the uncertainty of an event to realise, which, if realised, may have either a positive or negative impact on the achievement of business objectives (IIA, 2012; Smit, 2012:45). Risks are subjective in nature (Hillson, 2002:235; Vatsa, 2004:25) as a single risk, as identified by one business entity, will assuredly not be the same compared with a similar risk in another business entity (Spekman & Davis, 2004:416-417). In addition to the aforementioned, business entities face an array of risks on a daily basis, which may have an adverse influence on, inter alia, their profitability, liquidity, solvency, efficiency, and overall existence (Blackman, 2014; Luís et al., 2015:213; Prinsloo et al., 2015:73-74; Ridha & Alnaji, 2015:18). Hence, risks generally have a negative influence on the attainment of strategic objectives³, compliance objectives⁴, operational objectives⁵, and reporting objectives⁶ in any business entity, which, in turn, may adversely affect the fulfilment of relevant business objectives in the foreseeable future (Ferkolj, 2010:13; Geessink, 2012:9; Smit, 2012:47-51; Sin & Ng, 2013:4).). Otherwise stated, when risks are not

² The economic landscape of South Africa is covered extensively in Section 2.3.

³ Strategic objectives refer to long-term business goals, put in place by management, with the main intent to set/align the business' mission statement and vision statement with its relevant objectives. Such objectives can relate to market standing/market share, innovation, human resources, financial resources, productivity and social responsibility, among other (Fairholm, 2009:4; Papulova, 2014:12-14).

⁴ Compliance objectives pertain to the manner in which business entities adhere to applicable laws, rules, policies and regulations. Compliance objectives also encompass policies and procedures, for example, employees' code of conduct (Smit, 2012:123).

⁵ Operational objectives (tactical objectives) allude to short-term goals that need to be achieved in order to achieve long-term goals (strategic goals). In other words, operational objectives should be executed in a systematic way to accomplish strategic objectives (Smit, 2012:123).

⁶ As per the Committee of Sponsoring Organisations of the Treadway Commission (COSO, 2013), reporting objectives pertain to monetary and non-monetary reporting and incorporate reliability, accuracy, timeliness and transparency to assist in the attainment of relevant business objectives (Smit, 2012:123).

properly managed, they may realise and potentially result in the non-attainment of business entities' objectives in the foreseeable future (Doig & Macaulay, 2008:185; Shanikat et al., 2014:84). Risks are also inevitable and can have an immense adverse influence on the overall sustainability of any business entity. One of the most predominant risks which South African SMMEs face is that of occupational fraud risk (Du Toit, 2008:1; PWC, 2016; Sitharam & Hoque, 2016:279).

According to the Association of Certified Fraud Examiners (ACFE) (ACFE, 2012), occupational fraud risk is viewed as a phenomenon where stakeholders (employees and/or management) intentionally misuse their authority to enhance themselves by purposefully misappropriating the assets of a business entity. Moreover, occupational fraud risk include, but are not limited to, conflict of interest, corruption, bribery, theft of cash, fictitious or overstated revenues and assets, fictitious reductions of expenses and liabilities, inadequate financial disclosure, non-recording of transactions, recording of fictitious transactions, unrecorded sales amounts submitted, incorrect expense amounts captured, fictitious invoices submitted for goods or services, bogus financial statements, false invoicing payments made, and offering credit to unauthorised customers (ACFE, 2012; Effiok et al., 2012:520-523; ACFE, 2014; Swanepoel & Coetzee, 2014:2; ACFE, 2016; Shao, 2016:9). Based on previous research studies (PwC, 2014; Sitharam & Hoque, 2016:279), it was found that corruption and bribery are among the fastest growing and most prevailing occupational fraud risk evident in South African SMMEs. This is quite concerning, as in more recent times, occupational fraud risk has emerged as one of the greatest risks and it has an immense influence on the overall sustainability of South African SMMEs. This view is supported by the finding that approximately 25% of SMMEs in South Africa are negatively affected by occupational fraud risk; resulting in material financial losses and, at times, even liquidation (ACFE, 2014; ACFE, 2016). Notwithstanding the foregoing, previous research studies (ACFE, 2014; ACFE, 2016) point out that approximately 75% of realised occupational fraud risk is perpetrated by employees, which is quite concerning, since the vast majority of SMMEs have a small workforce to aid the execution of daily operations (Campbell & Hartcher, 2003; Wells, 2003:26; Gramling et al., 2010:30). Therefore, taking into account the aforementioned, the inference can be made that the initiatives utilised to combat this risk have limited adequacy and/or effectiveness. This view is supported by the fact that though all business entities,

regardless of their nature⁷, are subject to a variety of risks, the probability for risks to realise are much larger in South African SMMs as these business entities have limited resources (financial and/or non-financial) at their disposal (Loan, 2011:40). Thus, it is unsurprising that these business entities are reported to be more vulnerable to occupational fraud risk, among other risks, when compared to their larger counterparts (Laufer, 2011:401).

Stemming from the work of Shao (2016:13), the majority of occupational fraud risk cases occur at reporting level which have an impact on the information used by management to make effective business decisions. Such risk, among others, can be combatted through the implementation of effective internal control. The term 'internal control' is defined as a process designed by management to provide reasonable assurance regarding the attainment of a business entity's objectives (COSO, 2013). According to previous research studies (Loan, 2011:34; Bruwer, 2016:215), the internal control system of any business entity can be strengthened through the design and implementation of a sound system of internal control which comprises, inter alia, appropriate internal control initiatives⁸ and/or appropriate risk management initiatives⁹ (Dixon Hughes Goodman, 2013; Kahaian et al., 2013).

An internal control system can be viewed as a meticulous process designed by management, with the objective to provide reasonable assurance surrounding the achievement of a business entity's objectives (COSO, 2013; Adewale, 2014:255). Moreover, a sound system of internal control consists of five inter-related components (Rezaee et al., 2001:151; Smit, 2012:39; COSO, 2013; McNally, 2013), namely: 1) control environment (the attitude which management has towards internal control), 2) risk assessment (the identification, measurement, and response to risks), 3) internal control activities (activities, as supported by policies and procedures, that are put in

⁷ The nature of a business can be defined by the type of business it conducts (trading vs. service) and what objectives it wants to achieve, which may relate to economic objectives, social objectives and/or environmental objectives, to remain in existence for the foreseeable future (sustainability) (Forsberg & Löfvenberg, 2011:6).

⁸ Internal control initiatives allude to the mechanisms set up by management to provide reasonable assurance regarding the achievement of a business entity's objectives by means of the following categories: reliability of financial reporting, effectiveness and efficiency of operations, and adherence to applicable laws and regulations (Wallace, 2008:403; Tarantino & Cernauskas, 2011:124).

⁹ Risk management initiatives refer to the tasks of distinguishing, analysing and overseeing risks which may influence the sustainability of a business entity. Examples of risk management initiatives include risk avoidance, risk sharing, risk acceptance and risk mitigation (Thevendran & Mawdesley, 2004:131; Van Tonder, 2006:15).

place by management to mitigate identified risks), 4) information and communication (ensuring that relevant information reaches stakeholders to assist them in attaining relevant business objectives), and 5) monitoring (observing and quality-checking the progress of the entire internal control system on a continual basis).

As every business entity is unique, it becomes apparent that these five inter-related components will be unique in their approach and coverage from one business entity to the next. This sentiment is supported by previous research studies (Adewale, 2014:256; Nyakundi et al., 2014:721) where it was found that internal control systems will vary from one business entity to the next, owing to, inter alia, the managerial operating style, the size of the business entity, the number of employees, management's commitment to risk management, management's commitment to responsibility and accountability, and the financial resources in place to execute internal controls. Although all of the five inter-related components of an internal control system are imperative, for this research study, the focus was predominantly placed on the 'internal control activities' component.

The term 'internal control activities' refers to those activities, based on formal policies and procedures, as implemented by management, to ensure that identified risks are mitigated by preventive actions and/or detective actions, in order to provide reasonable assurance regarding the attainment of relevant business objectives in the foreseeable future (COSO, 2004; COSO, 2006; Christ et al., 2010:1917; Mwachiro, 2013:13; Ejoh & Ejom, 2014:133-134). These activities are generally demarcated into five categories (Agbejule & Jokipii, 2009:503; Frazer, 2012:363): 1) segregation of duties (having at least three different individuals to authorise transactions, perform transactions and record transactions, respectively), 2) independent checks (random checks performed in a business entity for quality and control purposes), 3) proper authorisation activities (confirmation of activities performed by and/or allowed by management), 4) adequate document usage and design (factual evidence to validate the occurrence of all transactions through properly designed documents, for example cash receipts, invoices, goods received notes, etc.), and 5) safeguarding of assets (protection of business entities' assets, be they tangible, intangible, current and/or non-current in nature, to enable them to operate as intended and render future economic benefits to the business, for example access controls at doors and/or entrances, CCTV alarm systems, and security guards). In the situation where internal

control activities are inadequate and/or ineffective, business entities will not be able to mitigate identified risks (Campbell & Hartcher, 2003), which, in turn, could adversely influence their sustainability and consequently their overall existence in the foreseeable future (Bukonya & Kinatta, 2012:7449; Ejoh & Ejom, 2014:133; Marquette University, 2015).

With the above in mind, and in a South African SMME dispensation, previous research studies (Siwangaza et al., 2014:168; Bruwer 2016:200-207) found that South African SMMEs make use of customised internal control activities to alleviate risks, which do not provide reasonable assurance that these business entities will accomplish their objectives in the foreseeable future. Moreover, these customised internal control activities are often regarded as inadequate and/or ineffective in relation to the combating of risks (Bruwer, 2016:265). This view is supported by previous studies (European Federation of Accountants, 2005; Dunne, 2014:4; Shao, 2016:13) where it was found that risks (in general) are more likely to occur if business entities make use of ineffective and/or inadequate internal control activities. Thus, clear tangent planes emerge as to why most South African SMMEs endure a magnitude of loss events¹⁰ (Viviers & Venter, 2008:58; Swanepoel & Coetzee, 2014:2). This is even more disconcerting when taking into account that the internal control activities related to the 'segregation of duties' and 'independent checks' are among the most inexpensive to implement (Dunne, 2014:18-20).

Taking into account the above, the inference can be made that South African SMMEs do not make use of adequate and/or effective internal control activities to combat risks, including that of occupational fraud risk. This view is supported by the phenomenon that these business entities place more emphasis on customised preventive internal control activities (Bruwer, 2016:141), despite the fact that the true strength of internal control activities to mitigate risks is vested in their ability both to prevent and detect them (Kobelsky, 2014:305; Al-Thuneibat et al., 2015:203). Nevertheless, previous research studies (Campbell & Hartcher, 2003; Mutezo, 2005:11; Laufer, 2011:402) show that South African SMME management prefer to not invest too much money in the implementation of internal control initiatives, as such initiatives are perceived to be excessively costly while rendering limited returns on investment.

¹⁰ Loss events allude to risks which have realised (Viviers & Venter, 2008:58; Shao, 2016:17).

1.2 STATEMENT OF THE RESEARCH PROBLEM

Stemming from the above it appears that the majority of South African SMMEs do not make use of adequate and/or effective internal control activities to manage risks, particularly occupational fraud risk. Therefore, against the background to the research problem (see Section 1.1), the research problem within the ambit of the thesis, is:

The sustainability of South African fast-moving consumer goods (FMCG) SMMEs is adversely influenced by the realisation of occupational fraud risk, which, in turn, is believed to stem from the utilisation of internal control activities that are not effective.

1.3 PRIMARY RESEARCH QUESTION, INVESTIGATIVE RESEARCH QUESTIONS AND RESEARCH OBJECTIVES

For this study, one primary research question was asked with the main intent to mitigate the research problem (see Section 1.2) which subsequently had a primary objective. The primary research question was further divided into five investigative research questions and five secondary research objectives. The primary research question, primary research objective, investigative research questions and secondary research objectives are elaborated upon below.

1.3.1 Primary research question and primary research objective

The primary research question in support of the mitigation of the research problem (see Section 1.2), read as follows:

How effective are the internal control activities utilised by South African FMCG SMMEs to combat occupational fraud risk?

Taking the primary research question above into account, the primary research objective pertaining to this research study is:

To determine the effectiveness of internal control activities evident in South African FMCG SMMEs to combat occupational fraud risk.

1.3.2 Investigative research questions and secondary research objectives

The investigative research questions, research methods (in brief) and secondary objectives which related to the main research question and primary research objective (see Section 1.3.1), as well as the research problem (see Section 1.2), are summarised in Table 1.1.

Table 1.1: Investigative research questions, research methods and secondary research objectives relative to this study

Investigative Question	Research Method(s)	Objectives
<i>What is occupational fraud risk?</i>	Literature review	To conceptualise what occupational fraud risk is.
<i>What are sound internal control activities?</i>	Literature review	To conceptualise what sound internal control activities are.
<i>What occupational fraud risk do South African FMCG SMMEs face?</i>	Survey	To ascertain the occupational fraud risk which South African FMCG SMMEs face.
<i>What internal control activities are utilised by South African FMCG SMMEs to combat occupational fraud risk?</i>	Survey	To determine the internal control activities that are utilised by South African FMCG SMMEs to combat occupational fraud risk.
<i>How sound are these internal control activities to combat occupational fraud risk?</i>	Survey	To determine the soundness of internal control activities, as utilised by South African FMCG SMMEs, to combat occupational fraud risk.

1.4 RESEARCH DESIGN, RESEARCH METHODOLOGY AND RESEARCH METHODS

According to Kothari (2004:30) and Blumberg et al. (2011:147), a research design is a conceptual structure in which a research study is conducted; it can be deemed as a type of blueprint for the collection, measurement and analysis of data. Any research design can be categorised into four aspects, namely: 1) empirical research and/or non-empirical research, 2) primary data collection and/or secondary data collection, 3) numerical data collection and/or textual data collection, and 4) the level of control of the data collection tools used (Remenyi et al., 1998:44; Mouton, 2001:146). In essence, this research study was empirical in nature. Although a literature review was performed (see Chapter 2), it assisted in the development of a survey (see Annexure A) for the purpose of conducting empirical research. In essence, survey research was used by collecting (primary) data from a targeted population group, with the main intent to obtain data for analysing purposes to, in turn, draw relevant conclusions (Connaway & Powell, 2010:78).

Research methodology is defined as a way to solve an identified research problem in a systematic manner and to determine the result of a given research problem on a specific matter (Remenyi et al., 1998:28). Furthermore, research methodology can take the form of: 1) quantitative research, 2) qualitative research and/or 3) mixed-methods research (entailing both quantitative research and qualitative research) (Mouton, 2001:56; Leedy & Ormrod, 2010:94-95). Based on the research design used within the ambit of this research study, the research methodology was quantitative in nature, falling within the positivistic research paradigm.

In the light of the research design and research methodology described above, suitable research methods had to be identified. The term 'research methods' can be viewed as those tasks which should be performed in conjunction with the research methodology to help mitigate and/or solve an identified research problem (Newman & Benz, 1998:24; Kothari, 2004:7). For this study, a survey was used to assist in the collection of primary quantitative data from respondents in relation to the identified research problem (see Section 1.2). As the population size was unknown, non-probability sampling methods were used to select a representative sample size of respondents – all of whom had to be part of the management of South African FMCG SMMEs while

simultaneously adhering to a list of delineation criteria¹¹. Stemming from the collection of primary quantitative data, relevant statistical analyses (descriptive statistics and inferential statistics) were performed with the main intention to answer posed investigative research questions, allowing for the answering of the primary research question.

The research design, research methodology and research methods employed in this study are elaborated on, in depth, in Chapter 3.

1.5 CONTRIBUTION OF THE RESEARCH

This research study was conducted with the main intent to add value, particularly in the sense of how occupational fraud risk in South African FMCG SMMEs can be combatted through sound internal control activities. Value was specifically added by: 1) conducting a thorough literature review whereby a “current status” was provided on theoretical reality on relevant phenomenon (e.g., internal control in South African SMMEs, internal control activities used in South African SMMEs, etc.), 2) the analysis of data collected to provide empirical evidence on, inter alia, the research problem, and 3) making relevant recommendations and conclusions with the intent to mitigate the potential and/or actual harm caused by occupational fraud risk. This value added is beneficial to the following entities:

- SMME management (owners and/or managers): Guidance is provided on how best to make use of sound internal control activities to combat occupational fraud risk (among other risks). This can allow for management to implement both adequate and effective internal control activities in their respective business entities, contributing positively to the sustainability of their business entities for the foreseeable future.
- SMME employees: Insight is provided into occupational fraud risk which may be committed by employees (and management) and how to mitigate this from occurring (realising). This can allow SMME employees to have better job security.

¹¹ The delineation criteria chosen was greatly influenced by referring to past studies related to South African SMMEs and the discipline of *Internal Auditing*; particularly where such studies made use of non-probability sampling methods to assist in the collection of data from respondents.

- Policy-makers: Insight is provided into the fundamental internal control activities that should be in place for South African SMMEs to effectively combat occupational fraud risk, among other risks. This can result in the development of new and/or updated policies to assist with the execution of sound internal control activities in South African SMMEs to reduce and/or eliminate occupational fraud risk to, in turn, help these business entities attain their objectives in the foreseeable future, adding socio-economic value to the national economy.

1.6 CONCLUSION AND RELEVANCE OF THE STUDY

In this chapter, an overview was provided on the background pertaining to the research problem. Despite the fact that SMMEs are viewed as essential vehicles for economic growth, popular research shows that 80% of SMMEs fail within their first three years of existence. These business entities have one of the worst sustainability rates in the world as an array of economic factors adversely influence them. These economic factors can have a direct and negative influence on the economic landscape and economic growth of any country. Taking into account the non-conducive South African economic landscape, the inference was drawn that South African SMME management do not properly manage economic factors and associated risks which may adversely affect their respective business entities' overall sustainability.

The non-management of economic factors generally have a negative influence on the overall sustainability of any business entity as risks, including that of occupational fraud risk, may materialise. Occupational fraud risk is strongly influenced by unethical conduct of personnel (i.e., employees and management) within a business entity for personal gain by exploiting their privileges, and generally comprises asset misappropriation, corruption, and financial statement fraud. Furthermore, money laundering, bribery, corruption, procurement fraud, and asset misappropriation are some of the most predominant examples of occupational fraud risk evident in South African SMMEs. Consequently, the occurrence of occupational fraud risk has developed rapidly over the years and is disconcerting to note since it may have played an active role in adversely affecting the overall sustainability of these business entities. The latter is highly probable since South Africa has the worst statistics in respect of occupational fraud risk in comparison with other countries around the world, and South African SMMEs have limited financial resources to combat such risk. Thus, the

inference can be made that South African SMME management is not optimally committed to combat occupational fraud risk.

Building on the above, occupational fraud risk can be managed through means of employing sound internal control, particularly in the form of sound internal control systems which, in turn, comprise of five inter-related elements. One of these inter-related elements is that of 'internal control activities'. Internal control activities can be detective and/or preventive in nature and consist of five categories: segregation of duties, independent checks, proper authorisation activities, adequate document usage and design, and safeguarding of assets. Unfortunately, in a South African dispensation, SMMEs do not make use of proper internal control activities to combat risks as these activities are generally regarded as customised, inadequate and/or ineffective. Furthermore, South African SMME management is also reported to place more emphasis on executing customised preventive internal control activities as opposed to formal preventive and/or detective internal control activities. Since the realisation of risks is exacerbated by the execution of inadequate and/or ineffective internal control activities, the deduction was made that occupational fraud risk adversely influence the sustainability of South African SMMEs as internal control activities do not combat such risk due to their ineffectiveness.

A brief overview was also provided on the research problem, primary research question, primary research objective, investigative research questions and secondary research objectives. In addition, a summary of the research design, research methodology and research methods employed in this study were provided while also stating the contribution made from the research conducted. Following Chapter 1, the chapter- and content analysis for following chapters applicable to this research study are as follows:

Chapter 2: This chapter presents an overview of South African SMMEs and how certain economic factors influence the economic landscape of South Africa. Moreover, insight is provided on risk management, internal control, and internal control activities in both a general and South African SMME dispensation.

Chapter 3: In this chapter, a detailed explanation regarding the chosen research design, research methodology and research method for the study is provided. The research design gives a detailed outline of how the data were collected, while the research methodology not only provides context to the research problem and the objectives of the study but also supplies comprehensive information to aid in the understanding of, inter alia, the research process followed.

Chapter 4: From a quantitative perspective, this chapter reflects the approach followed to analyse the data collected, while simultaneously providing a platform for relevant discussion. In this chapter, all data gleaned from the survey are analysed accordingly (through descriptive statistics and inferential statistics), interpreted, and statistically presented.

Chapter 5: In this concluding chapter, key aspects pertaining to this research study are revisited. Key research results are brought into the context of the overall research problem, while recommendations are made, and conclusions are drawn.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

In this chapter, a literature review is conducted. As indicated by Remenyi et al. (1998:75), a literature review is an in-depth evaluation of prior research conducted by scholars to undertake an identified research problem. In particular, this chapter places emphasis on answering the first two investigative research questions, with the intent to achieving the first two secondary research objectives (see Section 1.3.2). Furthermore, an in-depth discussion is provided on inter alia occupational fraud risk and internal control activities which, in turn, were used as bases to develop the survey (see Annexure A) used in order to conduct empirical research (see Chapter 3) to mitigate the identified research problem (see Section 1.2). Relevant discussion takes place under the headings below: 1) an overview of South African SMMEs, 2) economic factors and the economic landscape of South Africa, 3) risks and occupational fraud risk, 4) risk management and internal control, and 5) internal control activities and their use in South African SMMEs.

2.2 AN OVERVIEW OF SOUTH AFRICAN SMMEs

SMMEs are defined by the National Small Business Act, No. 102 of 1996, as separate and distinct business entities which operate in various sectors of the national economy, which are generally managed by one or more owner(s) (South Africa, 1996:2; South Africa, 2004:4). Furthermore, SMMEs can be classified in terms of their respective sizes by using one or more of the following criteria: 1) the number of full-time employees, 2) total annual turnover, and 3) total gross asset value (South Africa, 1996:8). As this study focused on South African SMMEs operating in the FMCG¹² industry (see Section 3.5), a summary of the classification criteria of these SMMEs are shown in Table 2.1.

¹² FMCG refers to consumable products that can be sold quickly at a relatively low mark-up. FMCG business entities include those business entities that operate in the wholesale and retail industry (Forsberg & Löfvenberg, 2011:3). This study placed emphasis on South African SMMEs operating in the FMCG industry.

Table 2.1: Criteria for the classification of South African SMMEs in the FMCG industry (**Sources:** South Africa, 1996:8; South Africa, 2004:4)

Industry	Classification	Number of full-time employees	Annual turnover (Rm)	Gross asset value (Rm)
Fast-moving consumer goods	Medium	51–200	19.01–39.00	3.01–6.00
	Small	21–50	4.01–19.00	0.61–3.00
	Very small	6–20	0.21–4.00	0.11–0.60
	Micro	0–5	0.00–0.20	0.00–0.10

Based on this Act¹³ (South Africa, 1996:15-16), the South African government formally introduced the concept of SMMEs to assist with the creation of job opportunities, the alleviation of poverty and the contribution of significant growth to the South African economy (Joubert et al., 1999:21; Bruwer, 2010:7; Amra et al., 2013:3; Agwa-Ejon & Mbohwa 2015:1). The socio-economic value added by these business entities are placed in perspective by previous research studies (Africagrowth Institute, 2009; Swart, 2010:10; Booyens, 2011:70; DTI, 2012; Mouloungui, 2012:1; Edinburgh Group, 2014; SEDA, 2016) where it was found that South African SMMEs are responsible for employing between 61% and 90% of the total national workforce while contributing at least 42% to the national GDP.

Despite the statistics pertaining to the socio-economic value added by South African SMMEs, previous research studies (Fatoki & Odeyemi, 2010:128; Bruwer, 2012:5383) found that the objectives which national government has set for these business entities are generally not being achieved. Before elaborating on the statistics pertaining to the sustainability of South African SMMEs the term 'sustainability' is first conceptualised, within the ambit of this study.

The term 'sustainability' alludes to the capacity in which a business entity continues to remain in operation to conduct business for an extended period, with the aim to attain its relevant objectives (Goel, 2010:27; Alhaddi, 2015:7). Alternatively, the term 'sustainability' can also be viewed as the manner in which business entities conduct their respective business to achieve their objectives, with the main intent to remain in operation for a long period (Landrum & Edwards, 2009:4; Lebacqz et al., 2013:314). Business entities can conduct business for extended periods if they achieve a mixture

¹³ The criteria for classification of South African SMMEs were taken into consideration when developing the delineation criteria, particularly the number of full-time employees employed.

of three objectives, namely: 1) economic objectives (e.g., profitability, solvency, liquidity, etc.), 2) social objectives (e.g. sound relationships with stakeholders, employee wellness and development, etc.) and/or 3) environmental objectives (e.g. fair usage of natural resources, limited carbon emissions, etc.) – also known as the triple bottom line (Goel, 2010:27; Buys, 2012:10; Bechtold et al., 2013:205; Alhaddi, 2015:7). The triple bottom line concept is a type of approach used to assist in measuring the sustainability of business entities (Kuhlman & Farrington, 2010:3438; Jackson et al., 2011:56). Albeit the latter, previous research studies (Jackson et al., 2011:56; Vijfvinkel et al., 2012:7) note that several small business entities are predominantly focused on attaining their economic objectives (financial achievements and performances) as opposed to social objectives (enhancing human prosperity) and/or environmental objectives (protection of nature). Hence, using the above as a basis, and for the sake of this research study, sustainability is conceptualised as follows:

The ability of a business entity to accomplish its respective business objectives by means of executing a complete triple bottom line concept, which includes economic objectives, social objectives and/or environmental objectives. This should result in such a business entity to remain in operation for the foreseeable future.

Overall, the sustainability of South African SMMEs leaves much to be desired, especially in relation to the attainment of their economic objectives. The latter sentiment is supported by research where it was found that almost 80% of these business entities fail after being in operation for only three years, constituting one of the highest failure rates in the world (Cant & Ligthelm, 2002:1; Van Eeden et al., 2003:13; Olawale & Garwe, 2010:731; SEDA, 2010). The extensive failure rate of South African SMMEs is believed to be caused by the influence of various economic factors (Mabesele, 2009:19; Radas & Božić, 2009:439-440; Bruwer, 2010:7; Cant & Wiid, 2013:708).

2.3 ECONOMIC FACTORS AND THE ECONOMIC LANDSCAPE OF SOUTH AFRICA

Economic factors can be viewed as those factors which have a positive and/or negative effect on the economic landscape of a country, affecting both natural persons and non-natural persons operating within the particular economy (Cant & Wiid, 2013:708). More often than not, economic factors are demarcated into two categories: 1) macro-economic factors, and 2) micro-economic factors. These economic factors have a significant influence on the economy of South Africa and its inhabitants and are briefly expanded on below (Lazzeretti & Petrillo, 2006:47; Kunene, 2008:12; Radas & Božić, 2009:439-440; Poblete & Grimsholm, 2010:21; Swart, 2010:10-12; Booyens, 2011:70; Singh et al., 2011:218; De Jongh et al., 2012:9093; Layman, 2012):

- **Macro-economic factors:** These factors originate from national, regional and/or global economies and have a direct influence on the economic landscape of any country. In addition, these factors cannot be controlled and/or managed to a large extent. Examples of such economic factors include high interest rates, volatile exchange rates, volatile inflation rates, rapid technological advancements, government legislation, fluctuations in the supply and/or demand of products, and taxation levied on goods and/or services.
- **Micro-economic factors:** These factors are internally influenced by the actions of management in a business. In addition, these factors can be controlled by management to some extent. Examples of such economic factors include the negligence of management, incompetent and/or inadequate human resources, insufficient financial knowledge, ineffective internal controls, inadequate skills, and high employee turnover.

Taking the above into consideration, it becomes apparent as to why the sustainability of South African SMMEs is reported to be among of the worst in the world (Bruwer, 2010:1; Kabiawu, 2013:1; Wiese, 2014:4-5). Previous studies suggest that the weak sustainability rate of South African SMMEs is directly attributable to the influence of both macro-economic and micro-economic factors (Wessels, 2000:8; Radas & Božić, 2009:439-440; Bruwer et al., 2013:1004-1007). For this very reason, it is probable that these business entities are operating in a harsh economic landscape (Van Eeden et al., 2003:14; Lazzeretti & Petrillo, 2006:47; Herrington & Kew, 2013:9; Vawda et al., 2013:954).

Stemming from the work of Guilhoto et al. (2002:99), the economic landscape of a country alludes to the overall economic condition of a specific country. More often than not, the economic landscape of a country can be measured by an array of economic indicators, which include national employment as a percentage, the equal distribution of income, inflation rates, interest rates, and productivity (Fite et al., 2002:302-303). In order to evaluate the economic landscape of South Africa, six¹⁴ key economic indicators were used (Fite et al., 2002:300; Furdell & Wolman, 2006:16) and are elaborated on below (Schmitt-Grohé & Uribe, 2001:497-498; Cuijpers, 2009:10; Farris, 2010:851; Voznyuk, 2010:3; Akiba et al., 2012:174; Elrefaei, 2012:16):

- **GDP (nominal)**: The monetary value of all final goods and services made within any country, within a specific time frame, which is usually equivalent to 12 months. The GDP (nominal) is a primary economic indicator used to measure the general economic condition of the economy of a specific country.
- **GDP per capita (nominal)**: The GDP per capita (nominal) holds relevance to the total value of finished goods and services produced within a particular country, divided by the estimated population size of that country.
- **Gini index**: The Gini index is viewed as the measurement of equal income distribution of the citizens of a particular country. In essence, this statistic ranges between 0 (an indicator of absolute equal monetary distribution) to 1 (an indicator of absolute unequal monetary distribution) – providing a view of the gap that exists between rich and poor.
- **Inflation rate**: The inflation rate refers to the cost increment of goods and services over a period and is typically expressed as a percentage. The inflation rate is directly related to the cost of living in a particular country.
- **Population size**: Population size is regarded as the number of people who reside in a particular country.
- **Unemployment rate**: The unemployment rate holds relevance to the percentage of people that are unemployed in a particular economy and who are effectively seeking employment¹⁵.

¹⁴ The chosen six key economic indicators are the primary economic indicators required to analyse and evaluate the economic landscape of a country, fairly (Furdell & Wolman, 2006:16).

¹⁵ This refers to the narrow definition of unemployment (Fields, 2000:1).

In Table 2.2, relevant statistics are provided for the six economic indicators for the South African economy between 2014 and 2016, after which they are analysed and discussed accordingly.

Table 2.2: Economic indicators of South Africa between 2014 and 2016 (**Sources:** IndexMundi, 2015; Trading Economics, 2015; StatisticsTimes, 2016)

Economic indicator	2014	2015	2016
GDP (nominal)	US\$ ¹⁶ 349.8 billion	US\$312.9 billion	US\$266.2 billion
GDP per capita (nominal)	US\$6 223	US\$5 902	US\$6 003
Gini index	0.68	0.69	N/A
Inflation rate	6.2%	5.2%	6.3%
Population size	54.0 million	54.9 million	55.1 million
Unemployment rate (narrow)	25.5%	24.5%	26.5%

Using Table 2.2 as a foundation, the following inferences can be made:

The statistics pertaining to the GDP showed a US\$83.60 billion decrease (23.90%) from 2014 to 2016. The latter was made up of a US\$36.90 billion (10.55%) decrease between 2014 and 2015, and a US\$46.68 billion (14.92%) decrease from 2015 to 2016. It is highly probable that the decrease in the GDP (nominal) between 2014 and 2016 was caused by: 1) an increase in the South African unemployment rate for the same period, and/or 2) a decrease in the overall productivity of South African citizens for the same period.

Taking the GDP per capita (nominal) into account, it appears that there was a net decrease of US\$220 (3.54%) from 2014 to 2016. The latter encompasses a decrease of US\$321 (5.15%) from 2014 to 2015, and an increase of US\$101 (1.71%) from 2015 to 2016. These statistics support the earlier notion that the productivity of South African citizens decreased between 2014 and 2016; implying that the South African economy experienced negative growth. In turn, more evidence is provided to support the second inference made in relation to the marginal decrease in productivity. This

¹⁶ The currency of the United States dollar (US\$) was used as opposed to the South African rand (R) to elaborate on the economic landscape of South Africa as original measurements of the GDP (nominal) and GDP (per capita) were done by making use of the US\$. It also provides a fair representation of these phenomena due to rapid and/or frequent changes in exchange rates.

phenomenon may be attributable to an increase in the South African unemployment rate.

The Gini index ranged between 0.68 and 0.69 from 2014 to 2016. This serves as an indication that money was unequally divided among the citizens of South Africa. The inference can be made that poverty within South Africa was a major problem within the relevant period. This view is specifically supported by Grant (2015), where it was found that half of South Africans live below the poverty line (54%), meaning that approximately 27 million people were living on R779¹⁷ per person per month or less in this timeframe.

When the focus is shifted to the inflation rate, it should be noted that it is directly impacted by and/or directly impacts interest rates, supply and demand, import and exports, national debt, and consumer confidence, among others (Mokgola, 2015:17). To bring greater clarity to the impact of inflation between 2014 and 2016, the following scenario is provided:

Product A is purchased from manufacturer B at a purchase price of R10.00 in 2013. Owing to inflation, at the end of 2014, the purchase price of Product A amounted to R10.62, R11.17 at the end of 2015, followed by R11.87 at the end of 2016.

The South African population increased by 1.1 million people (2.03%) from 2014 to 2016. This constituted a 1.67% increase from 2014 to 2015, and a 0.36% increase from 2015 to 2016. The unemployment rate experienced a net increase of 1% from 2014 to 2016. The net increase in the unemployment rate may be regarded as marginal; however, the contrary is true when emphasis is placed on the change in the estimated number of unemployed South African citizens for the period 2014 to 2016. When the estimated population per year is multiplied by the unemployment rate for each applicable year, the following becomes apparent:

¹⁷ The currency in South Africa is the South African rand.

- Between 2014 and 2015, the number of estimated unemployed South African citizens decreased from 13.7 million to 13.5 million – a decrease of approximately 200 000 people (1.46% decrease).
- Between 2015 and 2016, the number of estimated unemployed South African citizens increased from 13.5 million to 14.6 million – an increase of approximately 1 100 000 people (8.14% increase).

Hence, the above provides evidence of a net increase in the South African unemployment rate of approximately 900 000 people. In addition, this also justifies the inference made earlier that unemployment increased in South Africa between 2014 and 2016.

Using the above as a basis, it is not surprising that the South African economic landscape is regarded as harsh. Stemming from previous research studies (Radas & Božić, 2009:439-440; Herrington & Kew, 2013:9; Bruwer, 2016:133), such an economic landscape is not very conducive for business entities to operate in, especially SMMEs, as it serves as a type of 'breeding ground' for risk to materialise in. The former view is supported by a previous research study (Bruwer & Coetzee, 2016:205) where it was found that South African SMMEs are not adequately managing economic factors (stemming from the harsh economic landscape), which, in turn, is believed to have an adverse influence on their overall sustainability. The foregoing is not surprising, as previous research studies (Tshabalala & Rankhumise, 2011:109; Hart, 2014) found that South African SMMEs are more vulnerable to economic factors when compared with their larger counterparts – they are generally unable to respond to rapid changes in the South African economic landscape. When considering the harsh economic landscape in which these business entities have to operate, clear tangent planes emerge that South African SMMEs are exposed to an array of risks.

2.4 RISKS AND OCCUPATIONAL FRAUD RISK

Risks relate to uncertain future events which could have a deleterious influence on the attainment of business objectives in the foreseeable future (Siayor, 2010:6; Smit, 2012:45). According to Duong (2009:10), the term 'risk' pertains to the possibility of danger and/or unexpected negative circumstances that may or may not occur. Based on guidance documents compiled by the Institute of Risk Management (IRM) (2002), a

risk signifies the likelihood (probability) of an event occurring, including its likely impact (consequence), once it realises. In the same vein, the term 'risk' can also be viewed as an uncertain event that may occur, which has the potential to adversely impact the attainment of relevant objectives (Nieman, 2006:224; Sanne, 2008:1210). In a business context, however, risk is often referred to as an uncertain event that may impact (positively and/or negatively) on the attainment of business objectives (Wood, 1964:83; Remenyi & Heafield, 1996:349). Thus, the term 'risk', within the ambit of this study, is conceptualised as follows:

A risk is an uncertain future event which may or may not occur which, in turn, may adversely affect the overall sustainability of a business entity in the foreseeable future.

Based on previous research studies (Tchankova, 2002:292-295; Smit, 2012:47-51; Bruwer et al., 2013:1011-1012; Blackman, 2014; Ridha & Alnaji, 2015:18), risks can be demarcated into four categories: 1) strategic risks, 2) compliance risks, 3) operational risks, and 4) reporting risks (Nguyen, 2007:45; Chandiramani, 2009:14; Global Association of Risk Professionals, 2011; Smit, 2012:50; Oblakovic, 2013:21; Sin & Ng, 2013:4; Deloitte, 2015; Fei, 2015:49). These risks are elaborated on below:

- **Strategic risks:** These risks may adversely affect the attainment of business entities' visions (strategic objectives for the foreseeable future), and missions (purposes and commitments in the foreseeable future). Examples of strategic risks include, inter alia: competition brought on by competitors, ineffective internal financial performance indicators, unstable political environments, harsh economic landscapes, and ineffective internal control systems.
- **Compliance risks:** These risks may adversely affect the overall compliance of a business with applicable policies, procedures, and regulations. Examples of compliance risks include, among other: incompetent human assets, not abiding by the code of conduct, ineffective and weak internal control systems, and unstable political environments.
- **Operational risks:** These risks may adversely affect the attainment of operational business objectives, including their economy, effectiveness, and efficiency. Examples of operational risks include, inter alia: ineffective internal financial performance indicators, inadequate information systems, criminal activities,

employee errors, fraud, operational inefficiencies, business interruptions (e.g., strikes), harsh economic landscapes and ineffective internal control systems.

- **Reporting risks:** These risks may adversely affect the reliability and integrity of financial and/or non-financial information that should be used by management to make sound business decisions. Examples of reporting risks include, inter alia: inaccurate reporting (internally and externally), ineffective internal control systems, and ineffective internal financial performance indicators.

Although risks are inevitable and may influence the sustainability of business entities (Luís et al., 2015:213; Prinsloo et al., 2015:73-74; Bruwer, 2016:49), operational risks are the most prevalent of all risks (Ferkolj, 2010:13; Deloitte, 2013) as these risks, once realised, may cause normal procedures and processes of business entities to operate at non-optimal levels (Smit, 2012:123). This view is supported by Blackman (2014), who avers that operational risks are not only unexpected events which may negatively impact everyday operations of a business entity but can evidently lead to the demise of such a business entity. Although operational risks are connected with, inter alia, extortion, malignancy, human error, and the lack of management skills (Young, 2006:46), one of the most common operational risks is that of occupational fraud risk (Geessink, 2012:9).

Subsequently, before expanding on occupational fraud risk and its potential impact on business entities (in general), this term is first conceptualised by citing the views of various scholars. A non-exhaustive list of these views appears in Table 2.3.

Taking the views of scholars in Table 2.3 into consideration, it appears that occupational fraud risk is a phenomenon that is intentionally committed by employees of a business entity, by misusing the business entity's resources for personal gain. Thus, for the sake of this research study, occupational fraud risk is conceptualised as follows:

It is a phenomenon where at least one employee intentionally mismanages the resources of a business entity to benefit himself/herself, abusing his/her respective position and/or authority for self-advancement, self-empowerment, and/or self-enrichment.

Table 2.3: Scholars' conceptualised views on the term 'occupational fraud risk'

No.	View on occupational fraud risk	Source
1.	A fraudulent activity carried out by someone employed by the company defrauded.	Fagerberg (2008:6)
2.	When a person defrauds his/her employing association.	Loan (2011:14)
3.	When an employee violates the employer's trust and/or abuses his/her position within the company for personal gain.	Steckel (2011:2)
4.	The use of an employee's occupation for personal financial gain through the deliberate misuse or misapplication of company resources or assets.	Milyutina (2013:4)
5.	Schemes by which a person defrauds his/her employing organisation.	AFCE (2014)
6.	Theft, embezzlement and fraud committed by employees who purposefully misuse business entities' assets and/or who perform misconduct, which, in turn, can cause financial loss to the respective business entity.	Anderson (2015)
7.	Fraud risk deliberately perpetrated by personnel of a business entity for personal gain, by exploiting their authority.	ACFE (2016)

Occupational fraud risk comprises three classes, namely: 1) asset misappropriation, 2) corruption, and 3) financial statement fraud (Dunne, 2014:5-6). Each of these three classes is briefly explained below (Wijayanto, 2007:5; Harrison et al., 2011:235; ACFE 2012; Gupta & Gill, 2012:150; Saksena, 2012:35; ACFE 2014; Kassem, 2014:3; Mohamed, 2014:22-23; PwC, 2014; Carroll, 2015:6):

- **Asset misappropriation:** Asset misappropriation is defined as the stealing of business resources for personal gain to the detriment of a business entity. Asset misappropriation is the most predominant and easiest occupational fraud risk type to commit within a business entity (see Figure 2.2), and the least costly. Moreover, asset misappropriation encompasses factors such as theft of cash on hand, theft of cash receipts, fraudulent disbursements, misuse of inventory, and/or inventory larceny.
- **Corruption:** Corruption is defined as dishonest conduct by those in authority within a business entity (management and/or authorised personnel). In addition, in a South African dispensation, corruption is regarded as one of the most significant classes of occupational fraud risk (see Figure 2.2) as corruption schemes are growing at a rapid pace nationally. Corruption is strongly associated with conflict of interest, bribery, illegal gratuities, and economic extortion.

- **Financial statement fraud:** Financial statement fraud occurs when employees or management intentionally misstate the financial statements of a business entity with the purpose of deceiving investors, creditors and/or other relevant stakeholders. In essence, financial statement fraud consists of the overstatement and/or understatement of assets, liabilities, expenses and/or revenue, and is often executed on account of poor financial performances and/or poor financial positions. Furthermore, fictitious revenue is the most common form and most expensive kind of financial statement fraud.

Notwithstanding the above, the three categories of occupational fraud risk is further subdivided, as graphically depicted in Figure 2.1.

In a South African dispensation, previous research has shown that money laundering, bribery, corruption, procurement fraud, and asset misappropriation are some of the most predominant risks related to occupational fraud risk in business entities, especially when contrasted against countries based in North America, Asia and Europe (Musarurwa, 2012; Hosken, 2014; Kassem, 2014:2). Moreover, Woodard (2008) notes that at least a quarter of South African SMMEs¹⁸ are affected by occupational fraud risk, which often results in material financial losses and, in some cases, even bankruptcy. This sentiment is supported by previous research studies (Viviers & Venter, 2008:51-52; PwC, 2014), where it was found that South African SMMEs are great (potential) targets of occupational fraud risk since their management believe that they are not at risk as their employees can be trusted and are often regarded as their friends (Mitchell, 1997:104). Unfortunately, in general, internal stakeholders abuse their authority and/or trust (Laitala, 2015). The latter strongly relates to a lack of proper governance¹⁹ as supported by many international cases.

¹⁸ The statistic pertains to those business entities which suffered harm/loss due to occupational fraud risk. It is practically difficult to protect small business owners and/or managers from occupational fraud risk since they are commonly viewed as natural "risk-takers", making them vulnerable to all sorts of risk, in particular occupational fraud risk (Shao, 2016:2).

¹⁹ Good governance implies the structures through which business entities achieve their objectives. It can either be in the form of economic responsibilities, social responsibilities and/or environmental responsibilities (Salfield, 2005:18; Ranängen et al., 2014:500). The seven characteristics of good governance include, inter alia, discipline, transparency, independence, accountability, responsibility, fairness and social responsibility (Heenetigala, 2011:18).

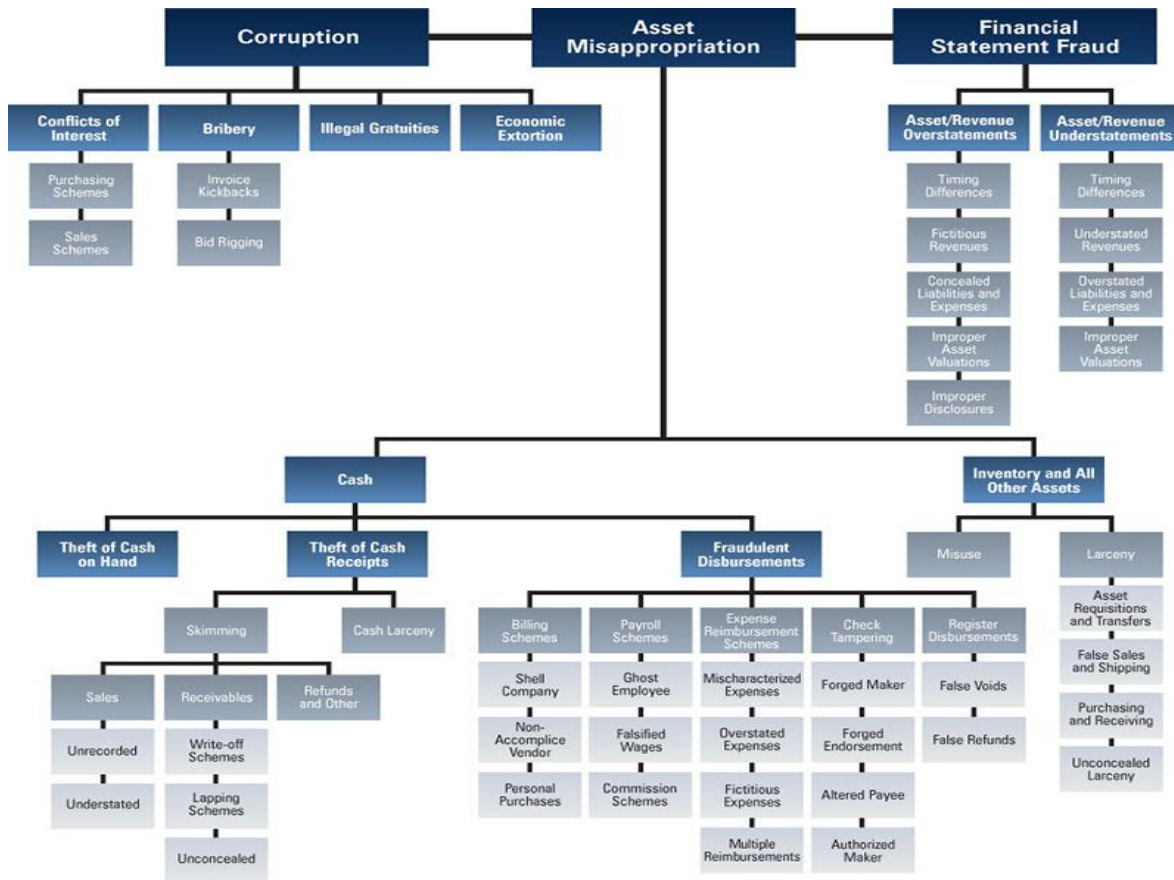


Figure 2.1: Occupational fraud risk classes (fraud tree) (Source: ACFE, 2012)

Occupational Fraud by Category - Frequency

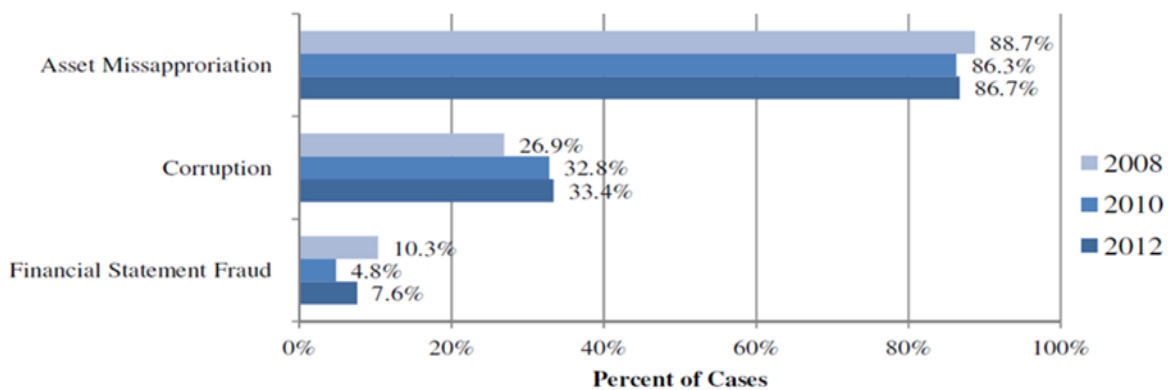


Figure 2.2: Occupational fraud risk and abuse frequency in small business entities (SMMEs) between 2008 and 2012 (Source: ACFE, 2012)

One of the most popular cases is that of Enron,²⁰ which collapsed in 2001 owing to financial statement fraud (Loan, 2011:22; Rubasundram, 2014:106). Often, the motivation behind the occurrence of occupational fraud risk can be clarified by the fraud triangle model (Mawanza, 2014:86; Baker Tilly International, 2016), as graphically depicted in Figure 2.3.

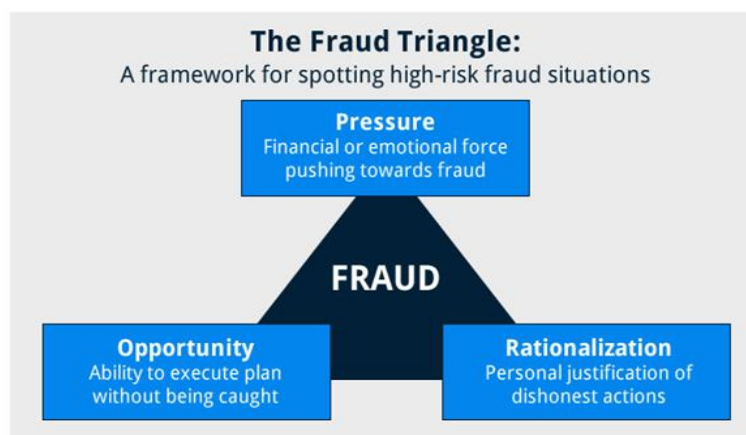


Figure 2.3: The Fraud Triangle model (**Source:** Mawanza, 2014:86; Baker Tilly International, 2016)

The fraud triangle model comprises three components: 1) opportunity, 2) pressure, and 3) rationalisation (Kennedy, 2012:8; Carroll, 2015:2). Based on the work of Lou and Wang (2011:62), only a single component of the fraud triangle model needs to be present in order for occupational fraud risk to realise. Each of the three components of the fraud triangle model is explained in more detail below (Lister, 2007:61; Albrecht, 2008:7; Kennedy, 2012; Saarni, 2012:6; Carroll, 2015:1; Shao 2016):

- **Opportunity:** Opportunity holds relevance to whether a person has the ability to perpetrate fraud. In almost all cases employees and/or management have the opportunity to commit fraud, since they have access to the business entity's assets and confidential information. In the same vein, fraud opportunities exist if business entities have weak internal controls, which, consequently, can have a severe negative impact on the attainment of business entities' objectives in the foreseeable future. Examples of opportunities to execute fraud include: staff shortages, lack of segregation of duties and/or ineffective internal control systems.

²⁰ Enron Corporation refers to the former American energy-trading organisation in Houston, Texas. It collapsed in 2001 owing to negligent conduct by management who were involved with fraudulent activities (Loan, 2011:22; Rubasundram, 2014:106).

- **Pressure**: Pressure holds relevance to the personal motivation to enact fraud. Examples of pressure include: personal circumstances, bad habits (e.g., gambling), greed, living beyond one's means and personal debt.
- **Rationalisation**: Rationalisation holds relevance to the explanation why fraud was committed. Alternatively stated, rationalisation pertains to the justifications and excuses of the fraudsters' conduct. Examples of rationalisation include, inter alia: *I was just borrowing the money*, and *I haven't had a wage increase since last year*.

Taking into account the above, including the harsh South African economic landscape (see Section 2.3), it is unsurprising that most occupational fraud risk realise owing to the components of 'pressure' and 'rationalisation' on the fraud triangle model (Auditor of Public Accounts, 2011; Carroll, 2015:1) – as exacerbated by various economic factors (see Section 2.3). Furthermore, Harrison et al. (2011:34) aver that the more components of the fraud triangle model are present, the greater the likelihood of occupational fraud risk to realise. Consequently, when considering the potentially destructive impact occupational fraud risk can have on the sustainability of business entities (Oktaviani et al., 2014:1941; Shao, 2016:2), clear tangent planes emerge as to why occupational fraud risk, among other risks, should be properly managed. Conversely, business entities can reasonably secure themselves against occupational fraud risk by employing, inter alia sound risk management initiatives and proper internal control initiatives.

2.5 RISK MANAGEMENT AND INTERNAL CONTROL

As previously mentioned, risks are inevitable and need to be appropriately managed. For business entities to properly manage risks, it is strongly recommended that adequate and/or effective risk management initiatives are utilised (Bruwer, 2016:54), among other initiatives. In order to clarify the meaning of the concept 'risk management', within the ambit of this study, diverse views of scholars (non-exhaustive) were taken into account, as shown in Table 2.4.

Table 2.4: Scholars' views on the concept 'risk management'

No.	View on risk management	Source
1.	Risk management is the foundation of good governance to alleviate risk.	Collier et al. (2007:2)
2.	Risk management pertains to the implementation of a plan in order to identify risk.	Dorfman (2007:18)
3.	Risk management takes into account different types of risks that exist within a business entity, from where relevant approaches are made to minimise the potential impact of these risks.	Kalia & Müller (2007:23)
4.	A range of related activities for coping with risks, including how risks are identified and assessed, and how social interventions to deal with risks are monitored and evaluated – ultimately transforming problems into solutions.	Nilsen (2007:15)
5.	A fundamental management tool to help identify, analyse, control and monitor future uncertainties which may have an adverse influence on organisational objectives.	Kwak & Smith (2009:814)
6.	The term 'risk management' is defined as the identification, analysis and control of risk which has a harsh outcome on business resources.	Siayor (2010:8)
7.	The process of identifying, analysing and either accepting or mitigating uncertainties which may have a negative influence on business decisions.	Wu et al. (2014:2)

From the above, it becomes apparent that risk management pertains to the identification of potential risks, the assessment of risks, the treatments of risks and the monitoring of risks. Therefore, for the sake of this research study, risk management is conceptualised as follows:

It is a process which is put in place by management to identify, evaluate and treat potential and/or actual risks which may have a direct influence on the overall sustainability of a business entity in the foreseeable future.

Risk management is of paramount importance in any business entity since it contributes fundamentally to its sustainability, allowing it to better achieve its relevant objectives (Na Ranong & Phuenngam, 2009:13; Coetzee & Lubbe, 2014:117). The risk management process comprises the following steps: 1) risk identification, 2) risk

evaluation (assessment), and 3) risk treatment (Valsamakis et al., 2000:25-27; Bowden et al., 2001:8-15; Hallikas et al., 2004:52-54). A brief overview of each step is provided below (Tchankova, 2002:293; Ahmed et al., 2007:31; Siayor, 2010:9; Saleem & Abideen, 2011:261; Smit, 2012; Ariff et al., 2014:422; Bruwer, 2016:59):

- **Risk identification:** Risk identification serves as the foundation for risk management since it involves business entities identifying risks which may have an adverse influence on the attainment of business objectives. Moreover, risk identification should be implemented on a continual basis in business entities in order to achieve their respective business objectives.
- **Risk evaluation:** Risk evaluation refers to the 'labelling' of risks based on their probability of realising and their potential impact upon realisation.
- **Risk treatment:** Risk treatment refers to the manner in which identified risks should be treated after they have been evaluated. Risk treatment generally takes place in four distinctive ways, by: 1) avoiding risks (high probability and high impact), 2) accepting/tolerating risks (low probability and low impact), 3) mitigating risks (high probability and low impact), and/or 4) sharing risks (low probability and high impact).

Thus, for all intents and purposes, the objective of risk management is to identify risks, evaluate risks, and treat risks before they realise by executing mechanisms to mitigate the potential harm which these risks can cause in relation to the attainment of business objectives (Kwak & Smith, 2009:814; Gibson, 2010:2). In order for risk management initiatives to be effective, it is recommended that they are built on a sound internal control system (Oblakovic, 2013:98; Siwangaza, 2013:1; Adewale, 2014:254; Coetzee & Lubbe, 2014:117).

An internal control system is defined as a meticulous process set up by applicable stakeholders, charged with governance, to provide reasonable assurance regarding the achievement of a business entity's relevant objectives in the foreseeable future through means of enhancing the reliability of reporting, the effectiveness, economy and efficiency of operations, the safeguarding of assets and the adherence to applicable laws, policies, procedures and regulations (Kenneman, 2004:2; Cascarino & Van Esch, 2007:55; Wallace, 2008:403; Tarantino & Cernauskas, 2011:124; Ntongo, 2012:8; Suyono & Hariyanto, 2012:1238; COSO, 2013). In addition, internal control systems should ideally be implemented through means of consulting applicable internal

control frameworks (Anderson et al., 2006:9; Agbejule & Jokipii, 2009:501). The most commonly used framework, with the most comprehensive approach to internal control for SMMEs, is that of the Committee of Sponsoring Organizations of the Treadway Commission (COSO) Internal Control – Integrated Framework (COSO, 2013). The COSO Internal Control – Integrated Framework was last updated in 2013 (Fleak et al., 2010:712) and comprises five inter-related components, as shown in Figure 2.4 (Siayor, 2010:13; Ntongo, 2012:8; Smit, 2012:39; COSO, 2013; Ayagre et al., 2014:380).

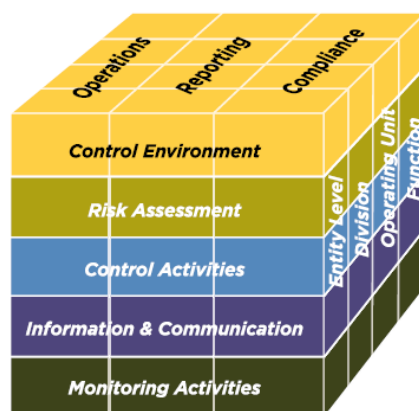


Figure 2.4: COSO Internal Control – Integrated Framework (**Source:** COSO, 2013)

The five inter-related components are explained in more detail below (COSO, 1994; D’Aquila, 1998:472; Ishumgisa, 2001:15; Cascarino & Van Esch, 2007:55; Jackson & Stent, 2007:5; Puttick et al., 2007:388; Fagerberg, 2008:30; Agbejule & Jokipii, 2009:503; Ratcliffe & Landes, 2009:8; COSO, 2010; Jiang & Li, 2010:214; Siayor, 2010:11; Smit, 2010:12; Ahokas, 2012:35; Ntongo, 2012:14; COSO, 2013:4-5; Siwangaza, 2013:16; Halonen, 2014:24; Bruwer, 2016:77):

- **Control environment:** This component serves as the foundation for a sound system of internal control and comprises standards, processes and structures set by those charged with governance²¹ to attain business objectives. Moreover, this is an important component of the COSO Internal Control – Integrated Framework, as it is the core of any system of internal control, influencing the control consciousness of a business’s workforce and significantly assisting employees of

²¹ Governance refers to all the stakeholders inside the respective business entity who have the authority to execute processes, rules, and controls to secure the assets of the business entity with the intention to function effectively and in a positive manner (Hermanson & Rittenberg, 2003:26; Ranängen et al., 2014:500).

business entities to become fully aware of the work requirements expected of them to carry out work instructions which relate to the overall performance of the business entity. The control environment of a business entity is greatly influenced by, inter alia the operating style of management, the ethical values and the expertise of internal stakeholders, managerial philosophy, management's commitment towards accountability, management's commitment towards responsibility, and management's commitment towards integrity. In essence, the control environment serves as the basis on which all the other components should build as it has a pervasive effect on all the other components in a system of internal control.

- **Risk assessment:** Risk assessment is the second component of the internal control system and refers to the identification and assessment of potential risks in order to attain business objectives. These potential risks can either be internally based risks and/or externally based risks and need to be managed adequately. Moreover, the risk assessment process may be categorised as avoidable, acceptable, transferable or mitigatable/combatable.
- **Internal control activities:** Internal control activities are defined as the actions (manual and/or automatic) established by management to prevent and detect risk by employing procedures and policies. Management is responsible for implementing and designing internal control activities that ought to be executed at all levels of a business entity. This is important, since every department faces different types of risks and the best way to deal with these risks is to have sound internal control activities in place. In particular, internal control activities are demarcated into the following five categories: 1) segregation of duties, 2) proper authorisation activities, 3) adequate document usage and design, 4) safeguarding of assets, and 5) independent checks.
- **Information and communication:** The information and communication component is of paramount importance for business entities as it ensures that all relevant information pertaining to the attainment of the business entity's objectives reaches management and applicable stakeholders. Relevant information and communication about the business entity should be communicated to stakeholders in order to carry out internal control responsibilities to attain the objectives of the respective business entity.

- **Monitoring:** The final component refers to the evaluation of the overall performance of the entire internal control system. For the entire internal control process to function effectively throughout any department, a system of internal control should regularly be monitored, whether on a continuous or periodic basis. In essence, insight is provided on the effectiveness of all five inter-related components of the system of internal control.

The five inter-related components of the COSO Internal Control – Integrated Framework must be present at all levels within business entities (i.e. at strategic levels, operational levels, reporting levels, and functional levels) and should provide reasonable assurance to management on the attainment of operational objectives, reporting objectives and compliance objectives (McNally, 2013). Although each of the five inter-related components in the COSO Internal Control – Integrated Framework is of paramount and equal importance, for the sake of this study, focus was placed on the component of ‘internal control activities’.

2.6 INTERNAL CONTROL ACTIVITIES AND THEIR USE IN SOUTH AFRICAN SMMEs

Although internal control activities were briefly discussed above (see Section 2.5), this term has various meanings to different scholars across the globe. In order to conceptualise this concept within the ambit of this study, the different views of scholars (non-exhaustive) were taken into account, as summarised in Table 2.5.

From the views of scholars in Table 2.5, it appears that there is agreement that internal control activities are built on formal policies and procedures which relate to, inter alia, approvals, authorisations, verifications, reconciliations, and reviews of operating performance, security of assets and segregation of duties, all with the intent to prevent, detect, and adequately address risks.

Table 2.5: Scholars' views on the concept 'internal control activities'

No.	View on internal control activities	Source
1.	Internal control activities are seen to measure the safeguarding of business assets, with the intention to prevent and detect conceivable risk cases and errors and to guarantee that accounting records are complete and accurate.	Coyle (2004:190)
2.	Internal control activities include: approvals, authorisations, verifications, reconciliations, and reviews of operating performance, security of assets and segregation of duties.	Dănescu et al. (2011:340)
3.	Internal control activities are policies and procedures that ensure that management mitigates risks to the best of their abilities. These activities pertain to the approvals, authorisations, verifications, and reconciliations – greatly relative to the safeguarding of assets and the segregation of duties.	Frazer (2012:363)
4.	Internal control activities are tools – both manual and automated – that help identify, prevent or reduce risks that can impede the accomplishment of organisational objectives. Management should establish internal control activities that are effective and efficient.	Gyebi & Quain (2013:222)
5.	Internal control activities comprise policies and procedures that ought to be set up to ensure that management effectively accomplishes their objectives.	Mwachiro (2013:13)
6.	Internal control activities are the policies and procedures designed by management to help ensure that internal and external risks do not negatively impact the entity's objectives and goals.	Oseifuah & Gyekye (2013:244)
7.	Internal control activities are practices, based on policies and procedures, to help ensure that organisational objectives are achieved and that risks are optimally mitigated and assist greatly with the safeguarding of assets, preventing and detecting errors and the completeness of accounting records.	Halonen (2014:26-27)

When these are compared with the definition of internal control activities²², as per COSO (2013), clear tangent planes emerge that internal control activities are based on policies and procedures put in place by management to mitigate risks in order to provide reasonable assurance regarding the attainment of relevant business objectives in the foreseeable future. Hence, taking the above into account, for the sake of this research study, internal control activities is conceptualised as follows:

Those actions based on implemented policies and procedures, by management, to mitigate risk, which may adversely impact the overall sustainability of a business entity. These actions incorporate a range of preventive and detective activities which pertain to the segregation of duties, proper authorisation activities, independent checks, safeguarding of assets, and adequate document usage and design.

After thoroughly searching various research databases, very few studies were found on internal control activities in South Africa. Two fairly recent local studies (Siwangaza et al., 2014:168; Bruwer, 2016:200-207) point out that although these business entities make use of internal control activities, these activities can be described as customised as they are inadequate and/or ineffective in relation to combating risks to provide reasonable assurance surrounding the attainment of business objectives in the foreseeable future. This may be why these business entities are more susceptible to risks when compared with their larger counterparts (see Section 1.1). This is disconcerting as the majority of South African SMMEs struggle to detect risks before they realise (Campbell & Hartcher, 2003; Mbonnyane, 2006:7). Although this may stem from limited resources (financial- and non-financial resources) in their possession, the inadequate and/or ineffective internal control activities in South African SMMEs can also be exacerbated by management as they often disregard the holistic importance of internal control activities as such activities are often viewed as 'too costly' (Campbell & Hartcher, 2003; Le Roux, 2005:12; Long, 2009; Steckel, 2011:6; Musarurwa, 2012; Dunne, 2014:4; Shanikat et al., 2014:85; Shao, 2016:5).

²² Internal control activities are the actions established through policies and procedures that help ensure that management's directives to mitigate risks, in the achievement of organisational objectives, are carried out. Internal control activities are performed at all levels in an organisation and at various stages within business processes. They may be preventive or detective in nature and may encompass a range of manual and automated activities such as authorisations, approvals, verifications, reconciliations and performance reviews (COSO, 2013:4).

2.7 CONCLUSION AND RELEVANCE OF THE STUDY

In this chapter, a thorough literature review was conducted on how SMMEs contribute to the growth of the economy of South Africa, how certain economic factors influence the overall sustainability of SMMEs, how South African SMMEs are exposed to risks, particularly occupational fraud risk, and how risk management, internal controls, and internal control activities are executed to combat occupational fraud risk. SMMEs were formally introduced by the South African government with the objective to create job opportunities, reduce poverty and essentially to add to the growth of the national economy. Despite the fact that SMMEs are viewed as the driving force for economic growth, previous research has shown that South African SMMEs have one of the worst sustainability rates in the world – approximately 80% of SMMEs fail after being in operation for only three years.

The poor sustainability of these business entities is believed to be aggravated by both macro-economic factors (e.g., high interest rates, government legislation, etc.) and micro-economic factors (e.g., negligence of management, ineffective internal controls, etc.). In addition, previous research has shown that South African SMMEs have to operate in a harsh economic landscape, which, in layperson's terms, means that these business entities have to conduct business in unconducive business environments where they are susceptible to an array of risks. One of the most prominent risks that South African SMMEs face on a daily basis is occupational fraud risk (part of operational risks).

Occupational fraud risk is when employees situated in a business entity purposefully abuse the assets of the business entity to benefit themselves. Popular literature suggests that occupational fraud risk can be demarcated into three categories, namely that of asset misappropriation, corruption and financial statement fraud. South Africa has among the worst statistics regarding occupational fraud risk when compared with countries around the globe since managers often believe that their business entities are not at risk and/or their employees can be fully trusted. One way in which occupational fraud risk, among other risks, can be combatted is by implementing sound internal control which, in turn, can be done through designing and implementing a sound system of internal control.

The term 'internal control system' refers to a process designed and implemented by management to provide reasonable assurance on the attainment of business objectives in the foreseeable future and consists of five inter-related components namely: 1) control environment, 2) risk assessment, 3) internal control activities, 4) information and communication, and 5) monitoring. All five inter-related components are imperative; however, for this research study, the focus was solely placed on the 'internal control activities' component.

Previous research shows that South African SMMEs make use of customised internal control activities that are generally inadequate and/or ineffective in relation to providing reasonable assurance surrounding the attainment of business objectives in the foreseeable future. In addition, the adequacy and/or effectiveness of these activities may be directly influenced by South African SMME management, as they often regard internal control as 'too costly' to implement. The inference was therefore formulated that South African SMMEs do not make use of sound internal control activities to mitigate risks, including that of occupational fraud risk. This phenomenon may have an adverse influence on the attainment of relevant business objectives, including the sustainability of these business entities in the foreseeable future.

Chapter 3 discusses the research methods, research methodology and research design employed in this research study.

CHAPTER 3: RESEARCH DESIGN, METHODOLOGY AND METHODS

3.1 INTRODUCTION

The purpose of this chapter is to provide sufficient information on the research design, research methodology and research methods pertaining to this study. In particular, it holds relevance to the research problem, which reads (see Section 1.2):

The sustainability of South African fast-moving consumer goods (FMCG) SMMEs is adversely influenced by the realisation of occupational fraud risk, which, in turn, is believed to stem from the utilisation of internal control activities that are not effective.

In order to address this research problem, the following main research question was asked:

How effective are the internal control activities utilised by South African FMCG SMMEs to combat occupational fraud risk?

The primary objective of this study is to determine the effectiveness of internal control activities in South African FMCG SMMEs to combat occupational fraud risk. This was achieved by asking five investigative research questions (see Section 1.3.2). For this research study, a literature review was conducted (see Chapter 2) to answer the first two investigative research questions and achieve the first two secondary research objectives, to subsequently allow for the development of a survey (see Annexure A) to conduct of empirical research to collect primary quantitative data to, in turn, be analysed and discussed in depth (see Chapter 4) with the intent of answering and addressing the remaining three investigative research questions and achieving the final three secondary research objectives (see Chapter 5), respectively.

For the remainder of this chapter, discussion takes place under the following headings: 1) ethical considerations, 2) validity and reliability, 3) research design and research methodology, 4) research methods, and 5) survey design.

3.2 ETHICAL CONSIDERATIONS

Stemming from the work of Saunders et al. (2000:130) and Rodgers (2010:83), ethical considerations are relevant to the procedures, behaviour and/or values of a researcher, when conducting research that is deemed as moral and humane. Alternatively stated, by making use of ethical considerations, a researcher discloses that a research study will be conducted or has been conducted in a fair, honest and responsible fashion (Collis & Hussey, 2009:45; Leedy & Ormrod, 2010:100). In this research study, the following relevant ethical considerations were taken into account (Saunders et al., 2000:130; Collis & Hussey, 2009:46-47, Blumberg et al., 2011:116-119):

- **Informed consent**: All respondents were given full disclosure of the nature of the study before they were asked to participate voluntarily in the research study. The latter was done by means of: 1) a consent form where each respondent had to give consent prior to participating in this research study, and 2) on the first page of the survey, a paragraph was provided stating that all information provided by each respondent would be kept strictly confidential, and the anonymity of each respondent will be respected.
- **Protection from harm**: All respondents were safeguarded from physical harm – respondents only had to complete a survey.
- **Voluntary participation**: The participation of respondents was completely voluntary, and each respondent could withdraw from the research study at any time if he/she wanted to, without fear of reprisal. For this research study, on the first page of the survey, a mandatory question (yes or no question) was asked on which each respondent had to give consent by voluntarily agreeing to participate in this research study.
- **Right to privacy**: All information provided by respondents was kept strictly confidential, and the anonymity of respondents was guaranteed. Moreover, on the first page of the survey, a section was provided stating that the right to privacy on all respondents will be guaranteed.

3.3 VALIDITY AND RELIABILITY

Validity and reliability are of paramount importance in any research study. Although these phenomena can be viewed as separate aspects, they are inter-related to a certain extent. Essentially, one could argue that a measurement can only be reliable if it is valid (Cooper & Schindler, 2011:280).

The term 'validity' is regarded as the phenomenon of measuring what is intended (Cooper & Emory, 1995:149-153, 360; Rose & Sullivan, 1996:19). In the same vein, Collis and Hussey (2009:64) affirm that validity is the extent to which research findings and results correspond with a research topic, research title, and research problem. For the sake of clarity, the survey (see Annexure A) used for this research study was tested for validation in relation to:

- **Content validity:** Content validity is defined as the extent to which a survey represents all the content allied to the research study. Moreover, content validity was enhanced by means of ensuring that the research questions and research objectives were clearly enunciated throughout the survey.
- **Face validity:** Face validity is defined as the extent to which a survey measures what is required of the research study to measure, considered subjectively or at face value. Furthermore, face validity was enhanced by ensuring that the actual research problem was measured and/or investigated through the questions posed in the survey.
- **Construct validity:** Construct validity is defined as the extent to which a survey is used to measure an identified research question and/or hypothesis. Moreover, construct validity was enhanced through means of consulting with experts to assure that all questions were fair, simple, clear and unambiguous (piloting).

The developed survey was piloted by an expert statistician (with a doctorate), two academics (one with a master's degree and one with a doctorate), and two members of the general public. The feedback received from the piloting of the survey was used to make the necessary amendments to the survey to fortify content validity, face validity and construct validity.

Reliability is the degree to which data collection tool produces stable, precise and consistent results (Cooper & Emory, 1995:153; Morrison et al., 2010:285). For this research study, after piloting took place, applicable reliability was assured by means of

gleaning truthful (factual) data adequately and recording them accurately. The data collected from respondents were treated as ordinal data as the majority of the questions posed in the survey were Likert scale questions (testing perceptions). Moreover, Cronbach Alpha values were calculated for all the Likert-scale questions posed in the survey in order to determine their reliability. It should be noted that only a brief overview of the reliability testing performed is provided above as it is explained in depth within the ambit of Chapter 4 (see Section 4.3).

3.4 RESEARCH DESIGN AND METHODOLOGY

In order to achieve the primary research objective (see Section 1.3.1), both a sound research design and research methodology had to be chosen. Before elaborating on the research design and research methodology used in this research study, it is important first to define both terms.

A research design is a type of blueprint for a research study to be conducted (Collis & Hussey, 2009:340; Blumberg et al., 2011:147). Moreover, a research design can be categorised into four aspects: 1) empirical research and/or non-empirical research, 2) primary data collection and/or secondary data collection, 3) numerical data collection and/or textual data collection, and 4) the control level of the data collection tools used (Remenyi et al., 1998:44; Mouton, 2001:146). In turn, a research methodology is viewed as the actual research process that the researcher should follow to execute the research study (Brynard & Hanekom, 2006:36). More often than not, the research methodology of any study can take the form of: 1) quantitative research, 2) qualitative research, or 3) mixed-methods research (both quantitative and qualitative research) (Mouton, 2001:56; Brynard & Hanekom, 2006:36; Leedy & Ormrod, 2010:94-95).

Using the foregoing as a basis, this research study was empirical in nature whereby primary data (quantitative in nature) were collected by means of survey research, using a survey. This survey (see Annexure A) was developed through means of conducting a thorough literature review (see Chapter 2); it also assisted greatly in fortifying the validity of thereof. Survey research is viewed as the collection of data from a specified population group by making use of a data collection tool with the intent to obtain data which, in turn, will be examined to draw relevant inferences and conclusions (Gay & Diehl, 1992:238; Remenyi et al., 1998:290; Connaway & Powell, 2010:78; Leedy & Ormrod, 2010:187). Primary quantitative data were obtained from

respondents (SMMEs owners and/or managers), all with the intent to address the identified research problem and subsequent research questions.

Based on the research design used within the ambit of this research study, the research methodology employed was quantitative in nature and fell within the positivistic research paradigm²³. In core, quantitative research entails the collection of numerical data from a representative sample of a targeted research population, in order to draw statistical inferences and/or reach relevant conclusions (Collis & Hussey, 2009:7; Makgatho, 2013:55). In order to effectively execute any research methodology, appropriate research methods needed to be employed.

3.5 RESEARCH METHODS

In the light of the research design and research methodology used in this study, appropriate research methods had to be utilised. According to Kothari (2004:8), research methods are those activities that need to be performed in order to conduct a research study physically. Otherwise stated, research methods are viewed as a set of tools used by a researcher to address an identified research problem (Hair et al., 2007:147). Since the size of the targeted population was unknown to the researcher (the number of South African FMCG SMME owners and/or managers), non-probability sampling methods²⁴ were chosen for this research study. In particular, a mixture of both purposive sampling and/or convenience sampling was used. According to Collis and Hussey (2009:213), purposive sampling is a sampling method whereby the researcher selects representatives of a targeted research population based on their characteristics to participate in the research study to collect rich data. In turn, convenience sampling comprises the systematic selection of participants who are easy to reach in order for the researcher to address the identified research problem (Remenyi et al., 1998:193).

²³ Positivistic research is based on factual evidence and a researcher considers society to be superficial and objective (Collis & Hussey, 2009:56; Creswell, 2014:7).

²⁴ Non-probability sampling methods are used when the size of the studied population is unknown to a researcher and/or when not all members of the studied population have a reasonably equal probability of being picked (Maree, 2007:176).

As non-probability sampling should allow for the collection of data of specific cases, applicable delineation criteria were developed for this research study. The selected delineation criteria were inspired by the National Small Business Act No. 102 of 1996 and previous local studies where focus was shifted on South African SMMEs and the discipline of *Internal Auditing* (e.g. Smit, 2012; Siwangaza, 2014; Bruwer, 2016). In order for any response to be regarded as valid, respondents had to adhere to the following delineation criteria:

- Respondents had to be the owners and/or managers of their respective SMMEs.
- Respondents had to be in a position to make decisions within the business entity.
- Respondents' SMMEs were regarded as sole traders or partnerships (no limited liability).
- Respondents were actively involved in the daily operations of their SMMEs.
- Respondents had at least one month's managerial experience.
- Respondents' SMMEs adhered to the definition of SMMEs in the National Small Business Act, No. 102 of 1996.
- Respondents' SMMEs employed between two and one hundred employees.
- Respondents' SMMEs were non-franchised.
- Respondents' SMMEs operated in the FMCG industry, situated within the Cape Metropole, South Africa.
- Respondents' SMMEs had been in existence for at least three years.

For this research study, primary data (quantitative in nature) were collected by means of a survey (see Annexure A) from 120 respondents. The questions in the survey consisted partly of yes/no questions, multiple-choice questions and predominantly of Likert scale questions. All Likert scale questions were introduced by an opening statement, to which respondents had to rate their agreement with each listed full statement. A major benefit of using Likert scale questions is that a researcher does not anticipate that respondents will essentially express a yes/no reply, but rather will be allowed to freely express their opinions, within set boundaries (Emory & Cooper, 1995:180-181). All data obtained from respondents were captured and analysed with the Statistical Package for the Social Sciences (SPSS) version 24. By making use of SPSS, relevant descriptive statistics and inferential statistics were performed.

Descriptive statistics were performed to display all the gleaned data in an understandable manner by means of tables and/or graphs (indicating means, medians, totals, standard deviations, etc.). Moreover, descriptive statistics were performed on: 1) the demographic information of South African FMCG SMMEs, 2) the demographic information of South African FMCG SMMEs management and/or owners, 3), South African FMCG SMME sustainability, 4) economic factors affecting South African FMCG SMMEs, 5) internal control activities utilised in South African FMCG SMMEs, 6) risks influencing South African FMCG SMMEs, and 7) occupational fraud risk affecting South African FMCG SMMEs.

In turn, inferential statistics were performed in order to test the relationship between internal control activities and occupational fraud risk evident in South African FMCG SMMEs with the main intent to address relevant research questions and achieve relevant research objectives. For this study, Spearman rank correlations were performed. Spearman rank correlation is a non-parametric test performed to provide a summary of the direction and size between two variables (e.g., the relationship between internal control activities and occupational fraud risk in South African FMCG SMMEs) (Hauke & Kossowski, 2011:89). The results performed by Spearman rank correlation ranges within a scale of 1.00 (positive) and -1.00 (negative).

The statistical analyses performed within the ambit of this study, along with relevant discussion, are covered in more depth in Chapter 4.

3.6 SURVEY DESIGN

As previously mentioned, a survey was used for this research study to answer the relevant research questions and achieve appropriate research objectives. The survey was developed in Microsoft Word format with the assistance of the conducted literature review (see Chapter 2). In the survey the following six measurement scales were used:

- Scale A: 1 = Yes, 2 = No.
- Scale B: 1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor Disagree, 4 = Agree, 5 = Strongly agree.
- Scale C: 1 = Very bad, 2 = Bad, 3 = Unsure, 4 = Good, 5 = Very good.

- Scale D: 1 = Never, 2 = Rarely, 3 = Some of the time, 4 = Most of the time, 5 = All of the time.
- Scale E: 1 = Very little, 2 = Little, 3 = Average, 4 = Much, 5 = Very Much.
- Scale F: 1 = Very negative, 2 = Negative, 3 = Neutral, 4 = Positive, 5 = Very positive.

These six scales were coded using numbers ranging from 1 to 5 in order to enhance construct validity. Before data were collected from respondents, the survey was piloted by a specialist statistician, two academics (who held PhDs), and two members of the general public to provide assurance that all sentences were structured in a clear, reasonable, unambiguous and impartial manner. The survey comprised six sections (A to F), all of which are listed below and discussed in more depth thereafter:

- Section A: Demographic information pertaining to South African FMCG SMMEs.
- Section B: Business sustainability pertaining to South African FMCG SMMEs.
- Section C: Economic factors influencing South African FMCG SMMEs.
- Section D: Internal control activities evident in South African FMCG SMMEs.
- Section E: General risk influencing South African FMCG SMMEs.
- Section F: Occupational fraud risk and their management in South African FMCG SMMEs.

The questions in Section A were relevant to the demographic background of the respondents. All the questions asked in this section were based on whether South African FMCG SMMEs adhere to the predetermined delineation criteria. Essentially, these questions had to be answered by the owners and/or managers of their respective FMCG SMMEs (respondents). Moreover, Section A consisted of eight questions of which five questions were multiple-choice questions and three ratio questions (see Table 3.1).

Table 3.1: Section A depicted in the survey

Question no.	Question type	Question
A1	Multiple-choice	Do you have decision-making power within the business?
A2	Multiple-choice	What is your position in the business?
A3	Ratio	How long have you been in this position?
A4	Ratio	How long has your business been in existence?
A5	Ratio	How many full-time employees do you employ?
A6	Multiple-choice	What type of business is this?
A7	Multiple-choice	What is your highest level of education?
A8	Multiple-choice	Do you make use of cash sales and/or credit sales?

In layperson's terms, sustainability pertains to the attainment of business objectives. The questions asked in Section B were based on the attainment of business objectives from which inferences could be made on the overall sustainability of the respective FMCG SMMEs. A list of possible answers was provided to which respondents only had to rate their level of agreement or disagreement with the statement. The layout of Section B comprised two questions, both in the form of Likert scale questions (see Table 3.2).

Table 3.2: Section B depicted in the survey

Question no.	Question type	Question
B9	Likert scale	For each statement, indicate your level of agreement. The base sentence reads: "In this business..."
B10	Likert scale	Based on your answers provided in Question 9, how would you describe the overall achievement of your business's objectives?

For Section C, respondents were asked how certain economic factors influenced the attainment of their FMCG SMME objectives. The primary objective for asking this specific question was to determine which common economic factor(s) impact South African FMCG SMMEs. The data collected from this question assisted the researcher in making inferences in relation to the weak sustainability rate of South African FMCG SMMEs. This question was in the form of a Likert scale question where respondents had to rate their level of agreement or disagreement with the statement (see Table 3.3).

Table 3.3: Section C depicted in the survey

Question no.	Question type	Question
C11	Likert scale	For each statement, indicate your level of agreement. The base sentence reads: "The following economic factor has a negative influence on the attainment of my business's objectives..."

In Section D, which forms the crux of this research study, respondents were asked how evident internal control activities were in their respective South African FMCG SMMEs. Internal control activities are put in place to prevent and detect risks in business entities in order to attain business objectives. In addition, a list of internal control activities was provided for respondents to indicate whether they made optimal use of sound internal control activities (and how often) to mitigate occupational fraud risk. Furthermore, sound internal control activities are based on, inter alia, segregation of duties, proper authorisation activities, adequate document usage and design, safeguarding of assets, and independent checks. The questions in Section D comprised four Likert scale questions (see Table 3.4).

Table 3.4: Section D depicted in the survey

Question no.	Question type	Question
D12	Likert scale	For each statement, indicate your level of agreement. The base sentence reads: "In this business, internal control activities are..."
D13	Likert scale	For each statement, indicate your level of frequency. The base sentence reads: "In this business..."
D14	Likert scale	How would you describe the influence of these internal control activities on the achievement of your business's relevant objectives?
D15	Likert scale	How much would you say these internal control activities help to combat the negative influence of economic factors on your business's attainment of objectives?

For Section E, all the questions asked were relevant to the general risks influencing the attainment of business objectives. Moreover, an in-depth list of general risks influencing business objectives was provided, where respondents had to rate their

level of agreement or disagreement with aspects adversely impacting their respective FMCG SMMEs. By posing these questions, the researcher gained insight into the various general risks influencing FMCG SMMEs' objectives, from which inferences could be drawn in light of the reactions of the respondents. Section E consisted of two questions, both taking the form of Likert scale questions (see Table 3.5).

Table 3.5: Section E depicted in the survey

Question no.	Question type	Question
E16	Likert scale	For each statement, indicate your level of agreement. The base sentence reads: "The following risk negatively influences the attainment of my business's objectives..."
E17	Likert scale	How severely do these risks influence your business's overall attainment of objectives?

Lastly, Section F centered on occupational fraud risk and its management (through internal control activities). All the questions depicted in Section F were based on occupational fraud risk and how severely these impacted the overall sustainability of South African FMCG SMMEs. In essence, sound internal control activities must be implemented to combat occupational fraud risk properly in order to assist FMCG SMME business entities in the attainment of business sustainability in the foreseeable future. Hence, the data gleaned from these posed questions assisted the researcher to ascertain the core occupational fraud risk, and in addition, the soundness of internal control activities to combat them. Three questions were asked, all of which were in the form of Likert scale questions (see Table 3.6).

Table 3.6: Section F depicted in the survey

Question no.	Question type	Question
F18	Likert scale	For each statement, indicate your level of agreement. The base sentence reads: "In my business, the following risks are evident..."
F19	Likert scale	How severely does occupational fraud risk influence your business's overall attainment of objectives?
F20	Likert scale	How would you rate the internal control activities within your business to mitigate occupational fraud risk listed in Question 18?

3.7 CONCLUSION AND RELEVANCE OF THE STUDY

In this chapter, an in-depth discussion was provided on the ethical considerations, validity and reliability, research design and research methodology, research methods, and survey design applicable to this research study. This was done to mitigate the identified research problem, answer the primary research question, attain the primary research objective, answer the five investigative research questions and achieve the five secondary investigative questions as outlined in Chapter 1.

The above was achieved by executing a sound research design and research methodology. For this research study, empirical research was conducted, through conducting survey research, whereby primary quantitative data were collected by means of a survey with the intent of answering relevant research questions and achieving appropriate research objectives. Moreover, survey research was used in order to collect data from respondents (South African SMME owners and/or managers) by posing questions pertaining to the identified research problem. In order to develop the survey, a thorough literature review was conducted (which also assisted in the answering of the first two secondary research questions; attainment of the first two secondary research objectives). In light of the research design used within the ambit of this research study, the research methodology was quantitative in nature and fell within the positivistic research paradigm.

In view of the above, suitable research methods were employed. As the size of the targeted population was unknown to the researcher, non-probability sampling methods were used for this research study, particularly a combination of both convenience sampling and purposive sampling. The target population of this research study was that of South African SMME owners and/or managers, and relevant delineation criteria had to be adhered to by respondents to justify a valid response – a total of 120 valid responses were recorded for this study. Data were collected by means of a survey and captured data were analysed using SPSS version 24 (see Chapter 4). A concise outline was provided for all the questions asked in the survey, which encompassed six sections (A–F), consisting partly of multiple-choice questions (yes/no questions) and predominantly Likert scale questions.

In Chapter 4, focus is placed on the data analysis and results as well as a discussion of the results.

CHAPTER 4: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 INTRODUCTION

The primary research question that was investigated to mitigate the identified research (see Section 1.3.1) read as follows:

How effective are the internal control activities utilised by South African FMCG SMMEs to combat occupational fraud risk?

To answer the primary research question, the following five investigative research questions were asked (see Section 1.3.2):

- *What is occupational fraud risk?*
- *What are sound internal control activities?*
- *What occupational fraud risk do South African FMCG SMMEs face?*
- *What internal control activities are utilised by South African FMCG SMMEs to combat occupational fraud risk?*
- *How sound are these internal control activities to combat occupational fraud risk?*

As previously mentioned (see Section 3.1), a literature review was conducted with the intent to answer the first two investigative research questions in order to attain the first two secondary research objectives, while also assisting in the development of the survey used in this study (see Annexure A) which, in turn, allowed for an empirical approach to be followed to answer the remaining three research questions and achieve the remaining three secondary research objectives. For the remainder of this chapter, discussion takes place under the following headings: 1) validity of data, 2) reliability of data, 3) demographical information, 4) South African FMCG SMME sustainability, 5) economic factors affecting South African FMCG SMMEs, 6) internal control activities utilised in South African FMCG SMMEs, 7) risks influencing South African FMCG SMMEs, 8) occupational fraud risk affecting South African FMCG SMMEs, and 9) the relationship between internal control activities deployed in sampled South African FMCG SMMEs and occupational fraud risk.

4.2 VALIDITY OF DATA

For any research study, data validity is of fundamental significance. Data validity pertains to the collection of data which is exact and correct in order to draw sound conclusions from a particular sample (Rose & Sullivan, 1996:19). This research study was quantitative in nature and a survey was used to obtain data. This particular survey took into account the following three validity measures: 1) content validity, 2) face validity, and 3) construct validity (see Section 3.3). Moreover, also related to validity, respondents had to adhere to a list of strict delineation criteria in order to obtain a valid response (see Section 3.5). For this research study, 120 surveys were disseminated to and received from owners and/or managers of South African SMMs, all of whom adhered to the list of delineation criteria.

4.3 RELIABILITY OF DATA

The data collection tool used should provide a researcher with consistent results. As such, the phenomenon of reliability was taken into account. This is viewed as the extent to which the method of data collection leads to consistent, adequate, complete and accurate results (Cooper & Emory, 1995:153; Morrison et al., 2010:285). For this research study, survey research was used and data collected from respondents were treated as ordinal data as the preponderance of questions in the survey comprised Likert scale questions (see Annexure A).

Cronbach's Alpha values were calculated for all Likert scale questions to determine their reliability. According to Tavakol and Dennick (2011:53), a Cronbach's Alpha value of 0.700 or greater for internal consistency testing is deemed acceptable. A summary of all Cronbach's Alpha values, for all Likert scale questions posed in the survey, is given in Table 4.1.

Table 4.1: Cronbach's Alpha values for all Likert scale questions in the survey

Section	Items tested	Cases	Cronbach's Alpha
B	16	120	0.932
C	18	120	0.933
D	14	120	0.962
D	31	120	0.956
E	25	120	0.963
F	26	120	0.965

From Table 4.1 it becomes apparent that the data collected pertaining to the Likert scale questions were deemed as reliable as all calculated Cronbach's Alpha values were greater than the 0.700 threshold.

4.4 DEMOGRAPHICAL INFORMATION

For this section, emphasis is placed on the demographical information on sampled South African FMCG SMMEs and their respondents. This takes place under relevant sub-headings below.

4.4.1 Demographic information of respondents

When respondents were asked what position they filled in their respective South African FMCG SMMEs, 60.8% indicated that they were managers, 20.8% indicated that they were both owners and managers, while 18.3% indicated that they were only owners. When respondents were asked how long they had been in these positions, it was apparent that 52.5% had between zero and five years' managerial experience, while the remaining 47.5% of respondents had at least six years' managerial experience. A summary of the results is evident in Figure 4.1. Respondents were also asked to state their highest qualifications. Stemming from the results, 19.2% of respondents had a highest qualification of lower than Grade 12, 41.7% of respondents had Grade 12, and 39.2% of respondents had a tertiary qualification. A summary of these results is shown in Figure 4.2.

Therefore, taking the above into account, the inference can be made that the average respondent was a manager of a South African SMME with between zero and five years' managerial experience and a highest qualification of Grade 12.

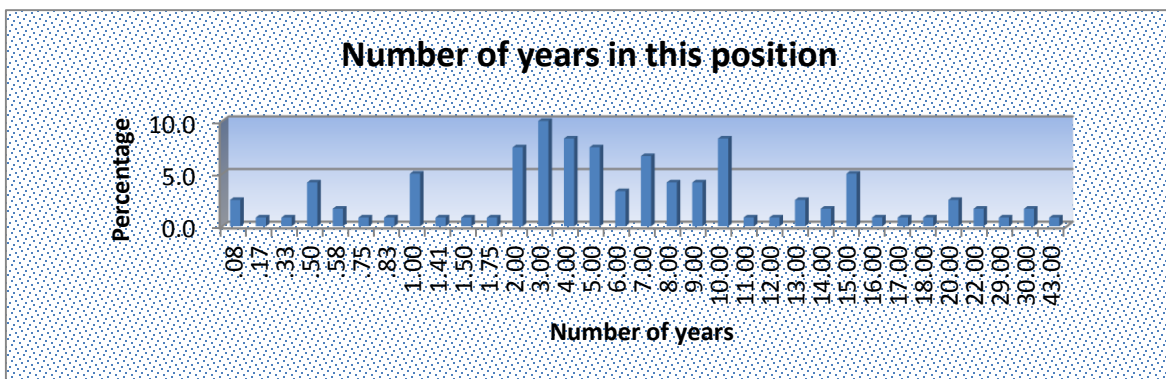


Figure 4.1: Number of years respondents were in their managerial positions

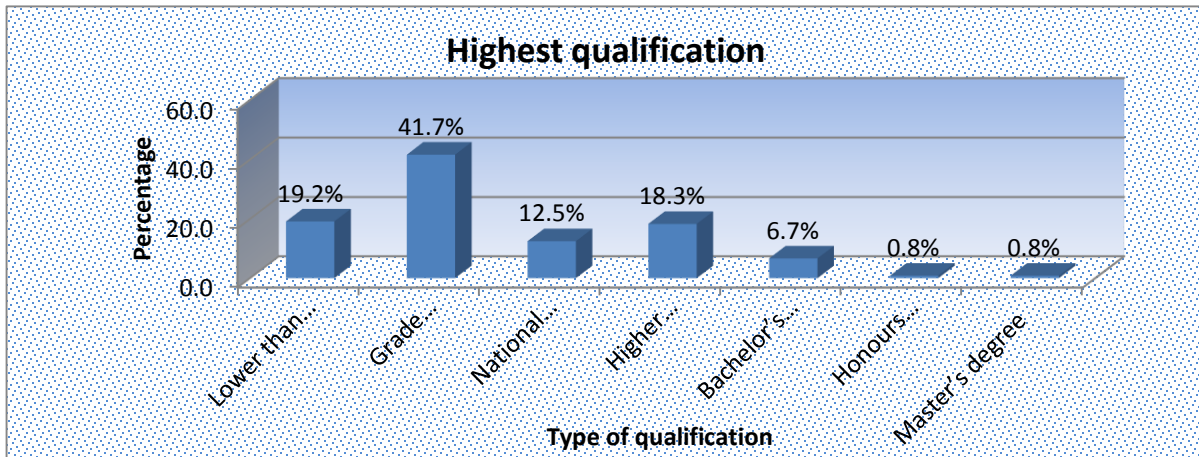


Figure 4.2: Highest qualification of respondents

4.4.2 Demographic information of SMMEs

When respondents were asked to indicate how long their respective South African FMCG SMMEs had been in existence, it was found on average they were in existence for twelve years with a median value of eight years²⁵. Although many South African SMMEs cease to exist after being in operation for approximately three years according to the scholarly literature (see Chapter 2), it should be noted that participating South African FMCG SMMEs comprised of a mixture of those business entities that have been in existence for less than three years and those that have been in existence for three years or more (see Section 3.5). Essentially, sampled South African FMCG SMMEs that have operated for more than three years must be doing 'something right' for them to have made it thus far – this may include the manner in which means internal control activities combat occupational fraud risk. A summary of these results is graphically depicted in Figure 4.3.

To better understand the size of the sampled South African FMCG SMMEs, respondents were asked to indicate their number of full-time employees. Stemming from the results, 40.0% of SMMEs employed between zero and five full-time employees, 54.2% of SMMEs employed between six and twenty full-time employees, while the remaining 5.8% employed more than twenty full-time employees (and fewer than 50 employees).

²⁵ The mean value indicates the average, while the median value indicates the absolute middle value – the difference of four years between the mean (12 years) and the median (8 years) is attributable to 30% of sampled SMMEs in operation for more than 15 years.

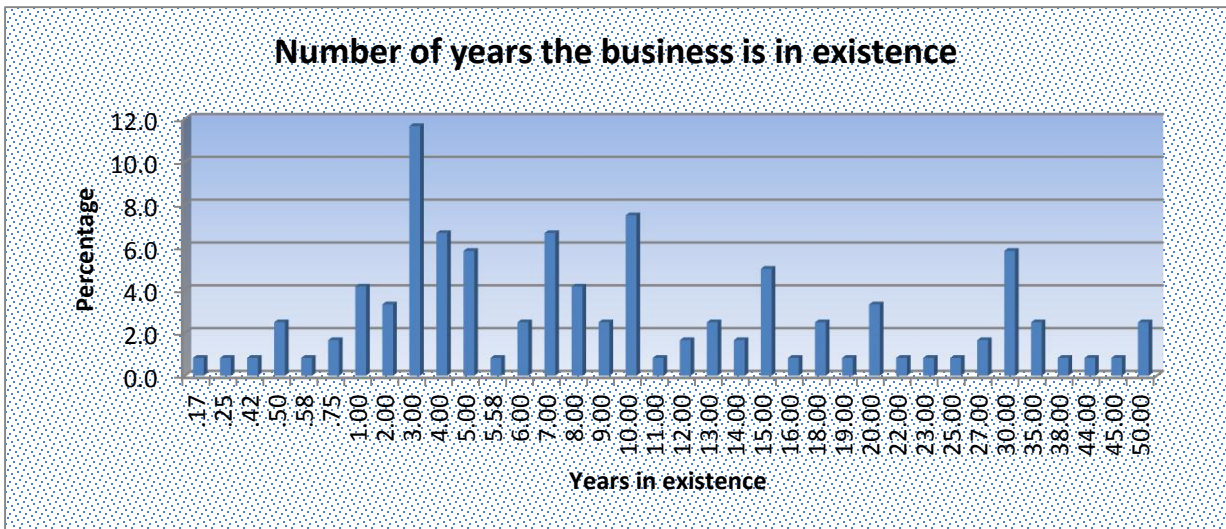


Figure 4.3: Number of years respondents' South African FMCG SMMEs have been in existence

Alternatively stated, while considering the classification criteria of South African SMMEs in the FMCG industry (see Section 2.2), the inference can be made that 40.0% of SMMEs were classified as “micro business entities”, 54.2% as “very small business entities”, and 5.8% as “small business entities”. The average number of full-time employees employed by sampled South African FMCG SMMEs was calculated at 7.85 (rounded off, eight).

In addition, respondents were asked to describe the nature of their respective South African FMCG SMMEs. Based on the results, 38.3% of SMMEs were described as fast-food business entities, 22.5% were described as restaurants, 13.3% were described as convenience stores, 2.5% were described as caterers, 0.8% were described as tuck shops, 3.3% were described as liquor stores, 1.7% were described as pharmacies, 0.8% were described as fruit and vegetable stores, while the remaining 16.7% were described as other²⁶.

Lastly, respondents were asked about their business entities' modus operandi – particularly in the sense of how sales take place. From the results, it became apparent that 64.2% of South African FMCG SMMEs made use of cash sales and/or credit sales, while the remaining 35.8% of respondents made use of cash sales only.

Stemming from the above, the inference can be made that the average sampled South African FMCG SMME was deemed a very small business entity which had been in

²⁶ 'Other' comprised tobacconists (3.3%), bakeries (5.8%), ice cream parlours (2.6%) and coffee shops (5.0%).

existence for twelve years, while employing an average of eight full-time employees, operating in the fast-food industry, with a modus operandi of conducting sales transactions on a cash and/or credit basis.

4.5 SOUTH AFRICAN FMCG SMME SUSTAINABILITY

Respondents were also asked to describe the sustainability²⁷ of their respective South African FMCG SMMEs. To achieve this, respondents had to rate their agreement with statements using a five-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree). Each statement started with the following base sentence: "*In this business ...*" A summary of the results pertaining to the statement is presented in Table 4.2.

Stemming from the results in Table 4.2, it becomes apparent that sampled South African FMCG SMMEs experienced good sustainability (based on the perceptions of respondents). This is particularly the case since the mean scores of all but one line item was at least 4.0 (a rating between 'agree' and 'strongly agree'). This means that sampled SMMEs were largely perceived by respondents to accomplish their respective business objectives – a complete triple bottom line concept which involves the attainment of relevant economic objectives, social objectives and/or environmental objectives which, in turn, will allow the business entity to remain in operation for the foreseeable future.

Moreover, respondents were asked to describe the overall achievement of their respective South African FMCG SMMEs' objectives (in general). A summary of the results is shown in Figure 4.4. Based on the content in Figure 4.4, it appears that the majority of respondents (91.7%) agreed that they achieved their overall business objectives. However, these business entities are believed to operate in a harsh economic landscape which makes it difficult for South African FMCG SMMEs to become sustainable (see Section 2.3). Hence, it is highly probable that respondents may have been biased in their responses as economic factors may have adversely influenced their respective SMMEs' overall sustainability.

²⁷ The term 'sustainability' was conceptualised in Section 2.2.

Table 4.2: Respondents' perceptions pertaining to their South African FMCG SMME's sustainability

Statement: "In this business..."	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Total agreement	Median	Mean	Standard deviation
Income is greater than expenses	3.3%	4.7%	15.8%	35.0%	41.7%	76.7%	4.0	4.1	1.0
There is sufficient cash on hand	1.7%	7.5%	17.5%	34.2%	39.2%	73.4%	4.0	4.0	1.0
Assets are greater than liabilities	4.2%	5.0%	15.8%	36.7%	38.3%	75.0%	4.0	4.0	1.1
Good relationships are maintained with customers	2.5%	-	2.5%	25.8%	69.8%	95.6%	5.0	4.5	0.7
Good relationships are maintained with suppliers	2.5%	-	4.2%	31.7%	61.7%	93.4%	5.0	4.5	0.7
Good relationships are maintained with competitors	2.5%	2.5%	15.0%	35.8%	44.2%	80.0%	4.0	4.1	0.9
Customer loyalty is strived towards	2.5%	-	3.3%	32.8%	61.7%	94.5%	5.0	4.5	0.7
Innovation is strived towards	4.2%	1.7%	9.2%	40.0%	45.0%	85.0%	4.0	4.2	0.9
Employees are self-motivated	4.2%	2.5%	12.5%	40.0%	40.8%	80.8%	4.0	4.1	1.0
Employees are competent	4.2%	3.3%	10.0%	45.8%	36.7%	82.5%	4.0	4.0	0.9
Employees are trustworthy	2.5%	5.0%	7.5%	44.2%	40.8%	85.0%	4.0	4.1	0.9
Integrity is strived towards	3.3%	2.5%	5.8%	40.0%	48.3%	88.3%	4.0	4.2	0.9
We have a green footprint (environmentally friendly)	14.2%	5.8%	16.7%	29.2%	34.2%	63.3%	4.0	3.6	1.3
Water is used sparingly	5.0%	4.2%	4.2%	43.3%	43.3%	86.7%	4.0	4.1	1.0
Electricity is used sparingly	5.0%	8.3%	9.2%	36.7%	40.8%	77.5%	4.0	4.0	1.1
Paper is used sparingly	5.8%	5.8%	8.3%	37.5%	42.5%	80.0%	4.0	4.0	1.1

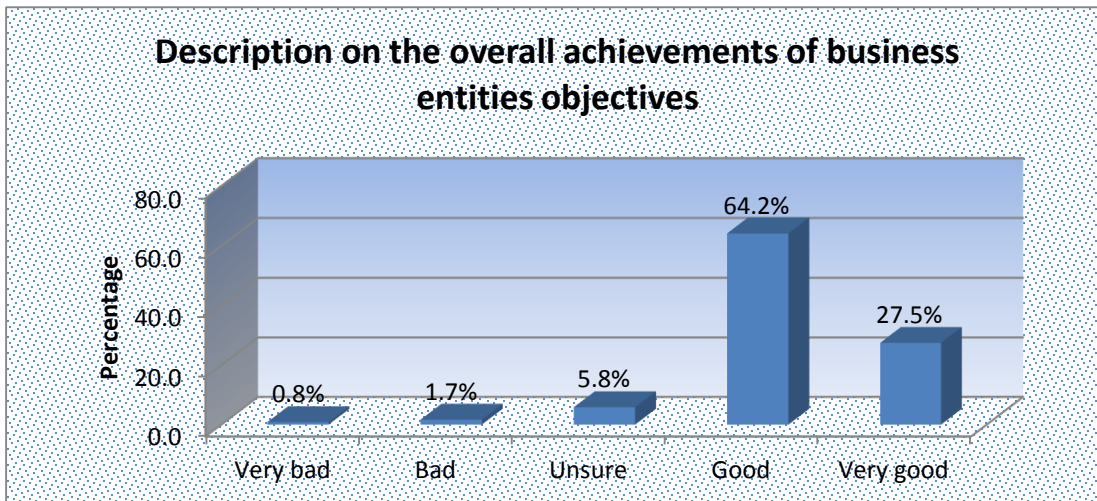


Figure 4.4: Description of the overall achievement of sampled South African FMCG SMMEs' objectives

4.6 ECONOMIC FACTORS AFFECTING SOUTH AFRICAN SMMEs

In order to gain better insight into how economic factors influenced sampled South African FMCG SMMEs, respondents were asked to indicate whether listed economic factors (stemming from Section 2.3) negatively influenced the attainment of their respective SMMEs' objectives. To achieve this, respondents were asked to rate their agreement with statements on a five-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree). The statement started with the following base sentence: "*The following economic factor has a negative influence on the attainment of my business's objectives ...*" A summary of the results pertaining to the statement is presented in Table 4.3.

Stemming from the results in Table 4.3, it appears that all listed economic factors had an adverse influence on respondents' South African FMCG SMMEs. This is supported by the fact that mean scores for all line items were above 3.6 (a rating between 'neither agree nor disagree' and 'agree', leaning towards 'agree'). In particular, the ten economic factors which had the greatest negative influence on the attainment of SMMEs' objectives were the cost of electricity (mean score of 4.5), cost of petrol (mean score of 4.4), inflation rate (mean score of 4.3), cost of water (mean score of 4.2), crime in general (mean score of 4.2), interest rate (mean score of 4.1), taxation levied on goods and/or services (mean score of 4.0), strict government legislation (mean score of 3.9), changes in supply and demand (mean score of 3.9), and fluctuating market conditions (mean score of 3.9).

Table 4.3: Economic factors affecting the sustainability of sampled South African FMCG SMMEs

Statement: "The following economic factor has a negative influence on the attainment of my business' objectives ..."	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Total agreement	Median	Mean	Standard deviation
Inflation rates	3.3%	1.7%	10.8%	35.0%	49.2%	84.2%	4.0	4.3	1.0
Interest rates	3.3%	1.7%	15.8%	35.8%	43.3%	79.2%	4.0	4.1	1.0
Rapid technological advancements	7.5%	10.8%	19.2%	25.8%	36.7%	62.5%	4.0	3.7	1.3
Strict government legislation	4.2%	5.8%	22.5%	32.5%	35.0%	67.5%	4.0	3.9	1.1
Taxation levied on goods and/or services	4.2%	1.7%	20.0%	37.5%	36.7%	74.2%	4.0	4.0	1.0
Changes in supply and demand	7.5%	2.5%	19.2%	34.2%	36.7%	70.8%	4.0	3.9	1.2
The cost of water	2.5%	5.0%	17.5%	23.3%	51.7%	75.0%	5.0	4.2	1.0
The cost of electricity	0.8%	1.7%	10.8%	22.5%	64.2%	86.7%	5.0	4.5	0.8
The cost of petrol	3.3%	-	14.2%	20.8%	61.7%	82.5%	5.0	4.4	1.0
Fluctuating exchange rates	8.3%	8.3%	17.5%	30.8%	35.0%	65.8%	4.0	3.8	1.3
Fluctuating market conditions	8.3%	3.3%	15.0%	36.7%	36.7%	73.3%	4.0	3.9	1.2
Lack of business planning	10.8%	10.0%	17.5%	24.2%	37.5%	61.7%	4.0	3.7	1.4
Crime (in general)	5.8%	0.8%	18.3%	17.5%	57.5%	75.0%	5.0	4.2	1.1
Limited business knowledge (employees/management)	8.3%	13.3%	18.3%	21.7%	38.3%	60.0%	4.0	3.7	1.3
Limited internal control awareness (employees/management)	6.7%	15.8%	13.3%	26.7%	37.5%	64.2%	4.0	3.7	1.3
Limited business skills (employees/management)	6.7%	15.0%	12.5%	31.7%	34.2%	65.8%	4.0	3.7	1.3
Limited internal financial resources	7.5%	8.3%	15.0%	33.3%	35.8%	69.2%	4.0	3.8	1.2
Weak business infrastructure	8.3%	15.0%	20.0%	24.2%	32.5%	56.7%	4.0	3.6	1.3

Taking the above into consideration, the inference can be made that sampled South African FMCG SMMEs were adversely influenced by an array of macro-economic factors mapping the harsh economic landscape in which these business entities have to operate (see Section 2.3). These economic factors can adversely influence the sustainability of any business entity, creating a breeding ground for risks to materialise, and if not appropriately managed, business entities will not attain their relevant business objectives in the foreseeable future.

Keeping in mind that sampled South African FMCG SMMEs' sustainability was deemed as very good (based on their perceptions – see Section 4.5), it is highly probable that these business entities may have implemented internal control activities to mitigate potential risks which may stem from the listed economic factors.

4.7 INTERNAL CONTROL ACTIVITIES UTILISED IN SOUTH AFRICAN FMCG SMMEs

To better understand the internal control activities evident in sampled South African FMCG SMMEs, respondents were first asked to describe the characteristics of "internal control activities". To achieve this, respondents were asked to rate their agreement with statements on a five-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree). The statement started with the following base sentence: *"In this business, internal control activities are ..."* A summary of the results pertaining to the statement is given in Table 4.4.

Stemming from the results in Table 4.4, it appears that respondents' understanding of 'internal control activities' generally concurred with formal theoretical definitions of the same term (see Section 2.6). This is supported by mean scores of certain line items which were at least 3.5 (rating between 'neither agree nor disagree' and 'agree', leaning mostly towards 'agree'). In particular, respondents were in agreement that 'internal control activities' should be built on policies, procedures, rules and/or guidelines (mean score of 4.0), put in place by management (mean score of 4.3), should mitigate risks (mean score of 3.9), include preventive actions (mean score of 3.7) and/or detective actions (mean score of 3.7), with the main intent to help attain business objectives (mean score of 4.0).

Using the above as a basis, respondents were asked to provide insight into the utilisation of internal control activities within their respective SMMEs. To achieve this, respondents were asked to indicate their level of frequency on a five-point Likert scale (1 = never, 2 = rarely, 3 = some of the time, 4 = most of the time, 5 = all of the time). The statement started with the following base sentence: *"In this business ..."* For the sake of clarity, the results are summarised in Table 4.5, Table 4.6, Table 4.7, Table 4.8 and Table 4.9, per category of internal control activity.

Table 4.4: Summary of the characteristics of 'internal control activities' as per respondents' perceptions

Statement: "In this business, internal control activities are ..."	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Total agreement	Median	Mean	Standard deviation
Built on policies, procedures, rules and/or guidelines	7.5%	7.5%	5.8%	40.8%	38.3%	79.2%	4.0	4.0	1.2
Put in place by management	0.8%	5.0%	5.0%	45.8%	43.3%	89.2%	4.0	4.3	0.8
Helpful to combat risks	5.8%	6.7%	10.8%	41.7%	35.0%	76.7%	4.0	3.9	1.1
Helpful to achieve business objectives	4.2%	7.5%	7.5%	45.8%	35.0%	80.8%	4.0	4.0	1.1
Evident at all levels within the business entity	6.7%	9.2%	11.7%	45.0%	27.5%	72.5%	4.0	3.8	1.1
Preventive in nature (stop risks before they take place)	10.8%	7.5%	12.5%	38.3%	30.8%	69.2%	4.0	3.7	1.3
Detective in nature (pick up risks when they take place)	12.5%	8.3%	8.3%	43.3%	27.5%	70.8%	4.0	3.7	1.3
Manual in nature	13.3%	11.7%	12.5%	35.0%	27.5%	62.5%	4.0	3.5	1.4
Automated in nature	18.3%	15.0%	16.7%	30.0%	20.0%	50.0%	3.5	3.2	1.4
Relative to source documents (usage and design)	10.0%	10.8%	20.0%	37.5%	21.7%	59.2%	4.0	3.5	1.2
Relative to the segregation of duties	7.5%	9.2%	19.2%	40.0%	24.2%	64.2%	4.0	3.6	1.2
Relative to authorisation activities	5.8%	9.2%	15.0%	45.0%	25.0%	70.0%	4.0	3.7	1.1
Relative to the safeguarding of assets	7.5%	8.3%	15.8%	37.5%	30.8%	68.3%	4.0	3.8	1.2
Relative to independent checks	7.5%	11.7%	11.7%	41.7%	27.5%	69.2%	4.0	3.7	1.2

Table 4.5: The use of adequately designed documents as an internal control activity

Statement: "In this business ..."	Never	Rarely	Some of the time	Most of the time	All of the time	Median	Mean	Standard deviation
Source documents are used when goods are bought	0.8%	10.0%	25.8%	26.7%	36.7%	4.0	3.9	1.0
Source documents are used when goods are received	2.5%	7.5%	22.5%	25.8%	41.7%	4.0	4.0	1.1
Source documents are used when goods are sold	2.5%	7.5%	26.7%	27.5%	35.8%	4.0	3.9	1.1
Source documents are used when payments are made	2.5%	9.2%	24.2%	24.2%	40.0%	4.0	3.9	1.1
Source documents are used when money is received	3.3%	9.2%	25.0%	25.0%	37.5%	4.0	3.8	1.1
Copies of all relevant source documents used are kept	1.7%	7.5%	24.2%	21.7%	45.0%	4.0	4.0	1.1

Stemming from the results in Table 4.5, it appears that South African FMCG SMMEs did, in fact, make use of source documents when transactions took place. This view is supported by mean scores for all line items which ranged between 3.8 and 4.0 (rating between 'some of the time' and 'most of the time'). The inference can, therefore, be made that South African FMCG SMMEs did make reasonable use of source documents as an internal control activity.

Table 4.6: The use of proper authorisation as an internal control activity

Statement: "In this business ..."	Never	Rarely	Some of the time	Most of the time	All of the time	Median	Mean	Standard deviation
Proper authorisation activities exist at all hierarchical levels	9.2%	5.0%	27.5%	26.7%	31.7%	4.0	3.7	1.2
Only management have power of authorisation	4.2%	5.8%	22.5%	27.5%	40.0%	4.0	3.9	1.1
Employees have power of authorisation with management permission	6.7%	17.5%	29.2%	26.7%	20.0%	3.0	3.4	1.2

Based on the results in Table 4.6, it is apparent that South African FMCG SMMEs' management is fundamentally in charge of authorisation activities within business entities; however, employees may authorise transactions (or events) with management's permission. This view is particularly supported by the mean scores for all line items which ranged between 3.4 and 3.9 (rating between 'some of the time'

and 'most of the time'). From the above, the inference can be made that management has power over the authorisation of activities within their respective South African FMCG SMMEs and/or delegation of such activities to employees (at least) some of the time.

Table 4.7: The use of safeguarding of assets as an internal control activity

Statement: "In this business ..."	Never	Rarely	Some of the time	Most of the time	All of the time	Median	Mean	Standard deviation
Passwords are needed to access computers	12.5%	9.2%	17.5%	17.5%	43.3%	4.0	3.7	1.4
CCTV cameras are used	28.3%	9.2%	14.2%	15.0%	33.3%	3.0	3.2	1.6
Alarm systems are used	25.0%	9.2%	12.5%	15.8%	37.5%	4.0	3.3	1.6
Security guards are used	45.8%	14.2%	13.3%	12.5%	14.2%	2.0	2.4	1.5
There are access controls at entrances	38.3%	13.3%	13.3%	13.3%	21.7%	2.0	2.7	1.6
Access controls are evident at all doors	35.0%	12.5%	16.7%	15.0%	20.8%	3.0	2.7	1.6
Access controls are evident at tills and/or safes	28.3%	8.3%	15.8%	20.8%	26.7%	3.0	3.1	1.6

Stemming from the results in Table 4.7, it is evident that the assets of South African FMCG SMMEs are not that well safeguarded. This view is supported by mean scores for all line items which ranged between 2.4 and 3.7 (rating between 'rarely' and 'some of the time'). From the above, it appears that South African FMCG SMMEs are not making use of proper preventive and/or detective controls to safeguard their assets. Thus, the inference can be made that sampled South African FMCG SMMEs found such internal control activities within their business entities to be dispensable.

Table 4.8: The use of segregation of duties as an internal control activity

Statement: "In this business ..."	Never	Rarely	Some of the time	Most of the time	All of the time	Median	Mean	Standard deviation
The person that authorises transactions does not record or authorise them	15.8%	19.2%	29.2%	20.8%	15.0%	3.0	3.0	1.3
The person that executes transactions does not authorise or record them	15.0%	16.7%	28.3%	25.0%	15.0%	3.0	3.1	1.3
The person that records transactions does not authorise or execute them	12.5%	17.5%	28.3%	24.2%	17.5%	3.0	3.2	1.3

In light of the results in Table 4.8, it appears that respondents were uncertain about the segregation of duties within their respective business entities. This view is particularly supported by the mean scores for all line items which ranged between 3.0 and 3.2 (rating 'some of the time'). It is important to note that the number of full-time employees (6 to 20 employees) could be seen as a possible reason for this – on average eight full-time workers are employed at a given time. Therefore, the inference can be made that respondents did not make use of segregation of duties within their respective business entities, probably since such internal control activities are not urgently needed and/or management do not see it essential to implement due to the limitation of employees in the business.

Table 4.9: The use of independent checks as an internal control activity

Statement: "In this business ..."	Never	Rarely	Some of the time	Most of the time	All of the time	Median	Mean	Standard deviation
There are independent checks performed on business processes	5.8%	12.5%	28.3%	31.7%	21.7%	4.0	3.5	1.1
Quality checks are performed on goods received	5.0%	10.8%	22.5%	30.0%	31.7%	4.0	3.7	1.2
Quality checks are performed on goods before they are sold	4.2%	12.5%	23.3%	29.2%	30.8%	4.0	3.7	1.2
Periodic cash counts are performed (counting cash in the till)	1.7%	13.3%	22.5%	25.0%	37.5%	4.0	3.8	1.1
Periodic stock/inventory counts are performed	-	10.0%	25.0%	29.2%	35.8%	4.0	3.9	1.0
Periodic reconciliations (e.g. bank reconciliation, etc.) are performed	4.2%	11.7%	25.8%	25.8%	32.5%	4.0	3.7	1.2
Clear guidelines and instructions exist on the personal use of assets	3.3%	10.8%	24.2%	28.3%	33.3%	4.0	3.8	1.1
Training is provided to employees when necessary	4.2%	10.8%	21.7%	28.3%	35.0%	4.0	3.8	1.2
Employees' competence is periodically assessed	6.7%	13.3%	27.5%	29.2%	23.3%	4.0	3.5	1.2
Staff are supervised (e.g. by supervisor)	3.3%	10.8%	20.0%	35.0%	30.8%	4.0	3.8	1.1
Staff are monitored (e.g. for behaviour changes)	1.7%	12.5%	20.8%	36.7%	28.3%	4.0	3.8	1.0
Disciplinary procedures exist (e.g. verbal warnings, written warnings, etc.)	2.5%	11.7%	21.7%	28.3%	35.8%	4.0	3.8	1.1

Stemming from the results in Table 4.9, it is apparent that South African FMCG SMMEs did, in fact, make use of independent checks. This view is supported by mean scores for all line items which ranged between 3.5 and 3.9 (rating between 'some of the time' and 'most of the time'). The top seven independent checks executed by South African FMCG SMMEs were periodic stock/inventory counts (mean score of 3.9), periodic cash counts (mean score of 3.8), clear guidelines and instructions on the use of personal assets (mean score of 3.9), employees' training (mean score of 3.9), staff supervision (mean score of 3.8), staff monitoring (mean score of 3.8), and disciplinary procedures (mean score of 3.8).

Thus, in summary, stemming from Table 4.5, Table 4.6, Table 4.7, Table 4.8 and Table 4.9, clear tangent planes emerge that sampled South African FMCG SMMEs predominantly made use of customised internal control activities with a global mean score (all line items, across all tables) of 3.4 (rating between 'some of the time' and 'most of the time'). This is disconcerting since respondents indicated that their respective South African FMCG SMMEs had very good sustainability, despite being influenced by economic factors and generally using internal control activities only 'some of the time'. The internal control activities which were mostly used included document use and design (average holistic mean of 3.9 – rating between 'some of the time' and 'most of the time'), proper authorisation (average holistic mean of 3.7 – rating between 'some of the time' and 'most of the time') and independent checks (average holistic mean of 3.7 – rating between 'some of the time' and 'most of the time').

Stemming from the above, to better understand how these internal control activities influenced the attainment of sampled South African FMCG SMMEs' business objectives on a five-point Likert scale (1 = very negative, 2 = negative, 3 = neutral, 4 = positive, 5 = very positive), respondents were asked to rate their agreement with the following question: *"How would you describe the influence of these internal control activities on the achievement of your business entities objectives?"* A summary of the results is graphically depicted in Figure 4.5.

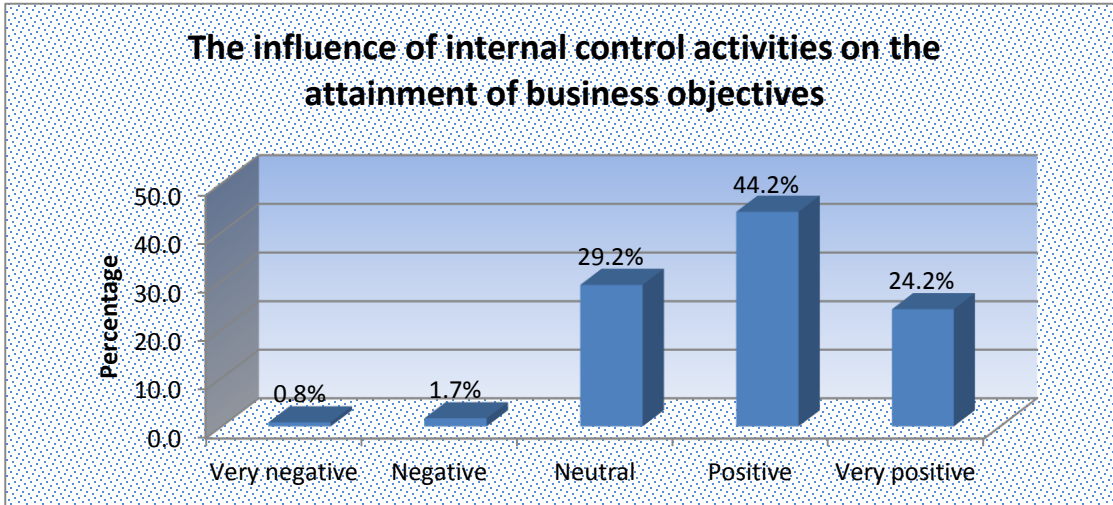


Figure 4.5: The influence of internal control activities on the attainment of business objectives

From Figure 4.5, it is clearly evident that respondents generally agreed (68.4%) that the (customised) internal control activities implemented in their respective South African FMCG SMMEs had a positive influence on the attainment of their relevant business objectives (mean score of 3.9 – rating between ‘neutral’ and ‘positive’). It may be the case that implemented internal control activities had a positive influence on the attainment of sampled South African FMCG SMMEs’ business objectives; however, it should be noted that these internal control activities were used, on average, only ‘some of the time’. In the same vein, respondents were also asked to describe how much these internal control activities aided in combating economic factors in order to attain business objectives. A summary of the results is graphically depicted in Figure 4.6.

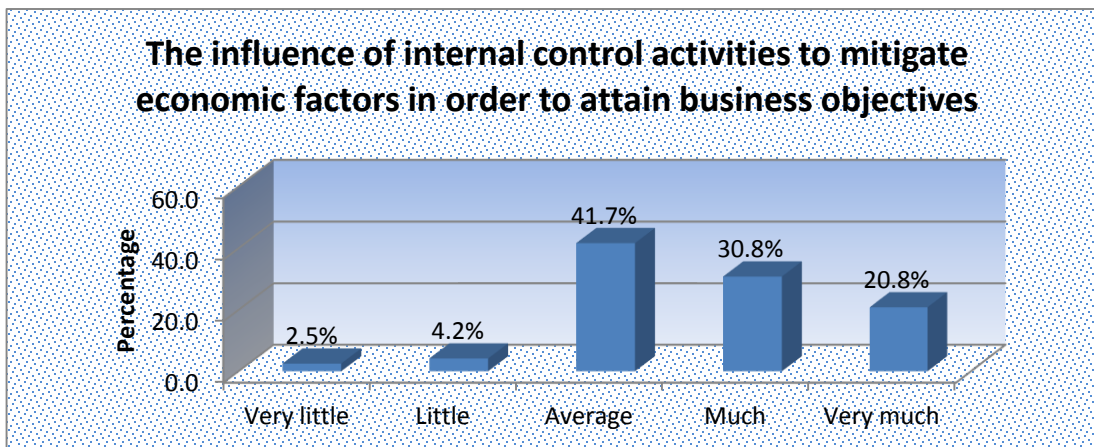


Figure 4.6: The influence of internal control activities to mitigate economic factors in order to attain business objectives

In Figure 4.6 it is evident that implemented internal control activities in sampled SMMEs were only partially effective as only 51.6% of respondents said they had an above-average influence in combating economic factors. With a mean score of 3.6 (rating between 'average' and 'much'), the inference can be made that the (customised) internal control activities implemented in sampled South African FMCG SMMEs do not provide reasonable assurance to management in relation to the mitigation of risks which may stem from economic factors to, in turn, help with the achievement of relevant business objectives in the foreseeable future.

4.8 RISKS INFLUENCING SOUTH AFRICAN SMMEs

Using the above as a foundation, respondents were asked to provide insight into the risks which negatively influenced their respective South African FMCG SMMEs' attainment of business objectives. To achieve this, respondents had to rate their agreement with statements using a five-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree). The statement started with the following base sentence: "*The following risk negatively influences the attainment of my business's objectives ...*" A summary pertaining to the statement is shown in Table 4.10.

Stemming from the results in Table 4.10, it becomes apparent that South African FMCG SMMEs face numerous risks. Mean scores of at least 3.5 support this view (rating between 'neither agree nor disagree' and 'agree') for at least seven line items. These risks, which negatively influenced sampled SMMEs' attainment of business objectives, included: 1) faulty information technology (IT) systems (mean score of 3.9), 2) leadership styles of management and/or supervisors (mean score of 3.8), 3) relationship between management and/or employees (mean score of 3.8), 4) loss of competent employees (mean score of 3.8), 5) internal communication (mean score of 3.7), 6) limited skills of employees (mean score of 3.7), and 7) the loss of experienced employees (mean score of 3.7).

Table 4.10: General risks which influenced sampled South African FMCG SMMEs' attainment of objectives (sustainability)

Statement: "The following risk negatively influences the attainment of my business's objectives ..."	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Total agreement	Median	Mean	Standard deviation
Leadership style of management and/or supervisors	14.2%	6.7%	6.7%	27.5%	45.0%	72.5%	4.0	3.8	1.4
Internal communication (e.g. interpersonal relationships, training materials, newsletters and/or policies)	15.0%	6.7%	13.3%	20.8%	44.2%	65.0%	4.0	3.7	1.5
Relationship between management and/or employees	12.5%	8.3%	8.3%	25.8%	45.0%	70.8%	4.0	3.8	1.4
Limited skills (competence) of employees	11.7%	10.0%	10.8%	34.2%	33.3%	67.5%	4.0	3.7	1.3
Social cultural values (e.g. fashion style, computer literacy etc.)	24.2%	10.0%	18.3%	25.8%	21.7%	47.5%	3.0	3.1	1.5
Political disruptions such as protests	26.7%	4.2%	13.3%	28.3%	27.5%	55.8%	4.0	3.3	1.6
Competition (stemming from competitors)	15.0%	5.0%	18.3%	30.8%	30.8%	61.7%	4.0	3.6	1.4
Fluctuating interest rates	15.8%	5.0%	13.3%	36.7%	29.2%	65.8%	4.0	3.6	1.4
Unrealistic revenue targets	10.8%	5.8%	18.3%	40.0%	25.0%	65.0%	4.0	3.6	1.2
Negative publicity (reputation)	21.7%	6.7%	12.5%	26.7%	32.5%	59.2%	4.0	3.4	1.5
Limited open-mindedness of employees to embrace innovation	19.2%	8.3%	17.5%	28.3%	26.7%	55.0%	4.0	3.4	1.4
Weak employee morale	20.8%	4.2%	11.7%	30.0%	33.3%	63.3%	4.0	3.5	1.5
Faulty information technology (IT) systems	9.2%	8.3%	10.8%	28.3%	43.3%	71.7%	4.0	3.9	1.3
Weak employee productivity	13.3%	5.8%	15.8%	34.2%	30.8%	65.0%	4.0	3.6	1.3
Frequent changes in customer needs	15.8%	11.7%	17.5%	30.8%	24.2%	55.0%	4.0	3.4	1.4

Statement: "The following risk negatively influences the attainment of my business's objectives ..."	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Total agreement	Median	Mean	Standard deviation
Limited demand for products and/or services	17.5%	9.2%	12.5%	37.5%	23.3%	60.8%	4.0	3.4	1.4
Too strict government regulations (e.g. employment, health and safety, etc.)	18.3%	9.2%	21.7%	25.8%	25.0%	50.8%	4.0	3.3	1.4
Too strict internal policies and/or procedures	20.8%	15.0%	17.5%	25.8%	20.8%	46.7%	3.0	3.1	1.4
Delays in supply chains	18.3%	7.5%	5.8%	39.2%	29.2%	68.3%	4.0	3.5	1.4
Loss of experienced employees	11.7%	8.3%	10.0%	38.3%	31.7%	70.0%	4.0	3.7	1.3
Loss of skilled (competent) employees	10.8%	7.5%	7.5%	42.5%	31.7%	74.2%	4.0	3.8	1.3
Substitute products and/or services	15.8%	10.0%	15.0%	35.8%	23.3%	59.2%	4.0	3.4	1.4
Limited creditworthiness of customers	19.2%	10.0%	15.0%	31.7%	24.2%	55.8%	4.0	3.3	1.4
Unethical behaviour by employees	16.7%	10.0%	7.5%	31.7%	34.2%	65.8%	4.0	3.6	1.5
Unethical behaviour by customers	14.2%	6.7%	13.3%	40.8%	25.0%	65.8%	4.0	3.6	1.3

Regardless of the risks faced by sampled South African FMCG SMMEs, the likelihood and potential impact of these risks should be mitigated by their implemented internal control activities to, in turn, fortify and enhance the sustainability of these business entities. As such, respondents were asked how severely these risks influenced sampled SMMEs' overall attainment of objectives. A summary pertaining to the results is graphically depicted in Figure 4.7.

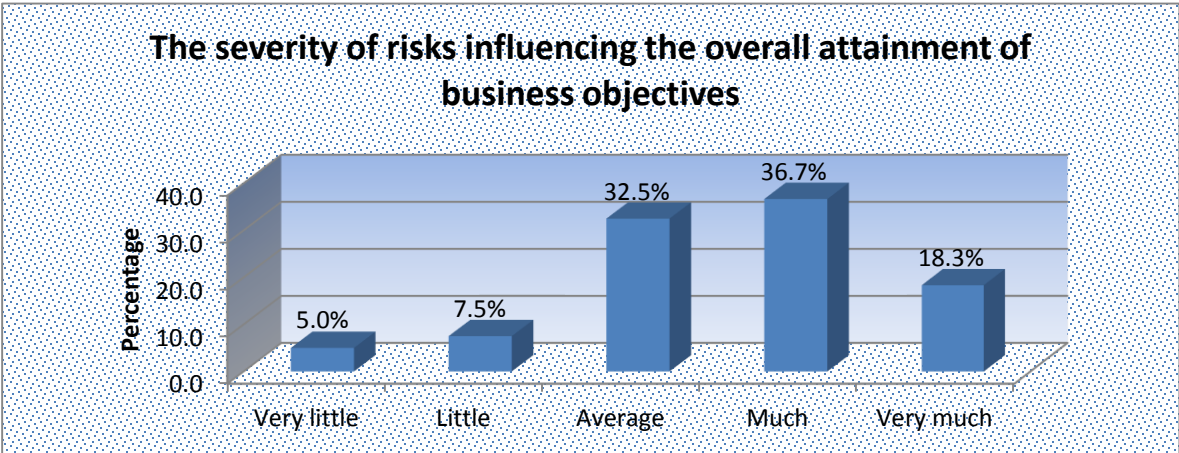


Figure 4.7: The severity of risks influencing the overall attainment of business objectives

In light of Figure 4.7, it is evident that the majority of respondents (55.0%) agreed that risks had a severe impact on the sustainability of their respective South African FMCG SMMEs. When taking into account that the top seven risks (see Table 4.10) pertained to operational risks, as well as the fact that the mean score for the results in Figure 4.7 was 3.6 (rating between 'average' and 'much'), it is highly probable that occupational fraud risk could have had an adverse influence on the overall sustainability of these business entities.

4.9 OCCUPATIONAL FRAUD RISK AFFECTING SOUTH AFRICAN FMCG SMMEs

Building on the above, respondents were asked whether occupational fraud risk was evident in their respective South African FMCG SMMEs. To achieve this, respondents had to rate their agreement with statements using a five-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree). The statement started with the following base sentence: "In my business, the following risks are evident ...". A summary pertaining to the statement is provided in Table 4.11.

Table 4.11: Occupational fraud risk evident within sampled South African FMCG SMMEs

Statement: "In my business, the following risks are evident ..."	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Total agreement	Median	Mean	Standard deviation
Corruption (e.g. dishonest or unethical behaviour by entrusted personnel etc.)	44.2%	15.0%	6.7%	17.5%	16.7%	34.2%	2.0	2.5	1.6
Conflict of interest (e.g. receiving gifts or benefits from a third party in connection with their duties)	36.7%	10.0%	12.5%	18.3%	22.5%	40.8%	3.0	2.8	1.6
Bribery (e.g. illegally taking money in exchange for something)	54.2%	15.8%	5.8%	11.7%	12.5%	24.2%	1.0	2.1	1.5
Theft of stationery	60.8%	12.5%	9.2%	10.8%	6.7%	17.5%	1.0	1.9	1.3
Theft of money	48.3%	10.0%	12.5%	15.8%	13.3%	29.2%	2.0	2.4	1.5
Theft of inventory (stock)	24.2%	9.2%	13.3%	33.3%	20.0%	53.3%	4.0	3.2	1.5
Sales are sometimes not recorded	42.5%	13.3%	15.8%	16.7%	11.7%	28.3%	2.0	2.4	1.5
Purchases are sometimes not recorded	49.2%	14.2%	13.3%	15.0%	8.3%	23.3%	2.0	2.2	1.4
Receipts are sometimes not recorded	46.7%	12.5%	17.5%	14.2%	9.2%	23.3%	2.0	2.3	1.4
Payments are sometimes not recorded	50.8%	14.2%	14.2%	14.2%	6.7%	20.8%	1.0	2.1	1.3
Incorrect sales amounts are sometimes recorded	41.7%	15.0%	17.5%	19.2%	6.7%	25.8%	2.0	2.3	1.4
Incorrect purchases amounts are sometimes recorded	45.8%	14.2%	12.5%	21.7%	5.8%	27.5%	2.0	2.3	1.4
Incorrect receipts amounts are sometimes recorded	45.0%	15.8%	11.7%	21.7%	5.8%	27.5%	2.0	2.3	1.4

Statement: "In my business, the following risks are evident ..."	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Total agreement	Median	Mean	Standard deviation
Incorrect payment amounts are sometimes recorded	43.3%	15.8%	14.2%	20.8%	5.8%	26.7%	2.0	2.3	1.4
Payroll schemes are not validated (e.g. paying employees incorrectly for the hours they work)	59.2%	15.8%	7.5%	11.7%	5.8%	17.5%	1.0	1.9	1.3
Personal expenses are paid with business funds	61.7%	14.2%	8.3%	12.5%	3.3%	15.8%	1.0	1.8	1.2
Late payments are made to creditors	54.2%	10.8%	11.7%	20.0%	3.3%	23.3%	1.0	2.1	1.3
Late receipts are received from debtors	52.5%	10.8%	11.7%	19.2%	5.8%	25.0%	1.0	2.2	1.4
Payments are made to made-up vendors	70.0%	10.8%	5.0%	10.0%	4.2%	14.2%	1.0	1.7	1.2
Invoices are received from made-up vendors	72.5%	10.0%	5.0%	10.0%	2.5%	12.5%	1.0	1.6	1.1
Invoices are sometimes paid twice	65.8%	12.5%	6.7%	10.8%	4.2%	15.0%	1.0	1.8	1.2
Payments are sometimes made for items not received	66.7%	10.0%	4.2%	10.8%	8.3%	19.2%	1.0	1.8	1.4
Credit is sometimes offered to unauthorised customers	65.8%	12.5%	2.5%	13.3%	5.8%	19.2%	1.0	1.8	1.3
Embezzlement (e.g. theft of business funding)	69.2%	10.8%	3.3%	10.8%	5.8%	16.7%	1.0	1.7	1.3
Business hours are used by employees to do personal work	36.7%	13.3%	7.5%	21.7%	20.8%	42.5%	2.5	2.8	1.6
Inventory is sometimes tampered with by employees for their personal benefit	55.8%	10.8%	9.2%	13.3%	10.8%	24.2%	1.0	2.1	1.5

Based on the mean scores in Table 4.11, it appears that occupational fraud risk had only limited visibility in sampled South African FMCG SMMEs with a holistic mean score of 2.2 (rating between 'disagree' and 'neither agree nor disagree'). The top four occupational fraud risk were those of theft of inventory/stock (mean score of 3.2), business hours used by employees to do personal work (mean score of 2.8), conflict of interest (mean score of 2.8), and corruption (mean score 2.5).

Although popular literature suggests that South African SMMEs are greatly affected by occupational fraud risk (see Section 2.4), it should be noted that the results stem solely from the perceptions of management. As previously mentioned, it is probable that respondents may have had a particular bias when completing the survey. Moreover, it is also a possibility that respondents may not have been aware of specific events (e.g., occupational fraud risk) in their respective SMMEs and/or could have had a misperception regarding the adequacy and/or effectiveness of their (customised) implemented internal control activities within their respective SMMEs. To address these possibilities to a reasonable extent, respondents were asked to describe how severely occupational fraud risk impacted upon the overall attainment of their respective businesses' objectives. A summary pertaining to the results is graphically depicted in Figure 4.8.

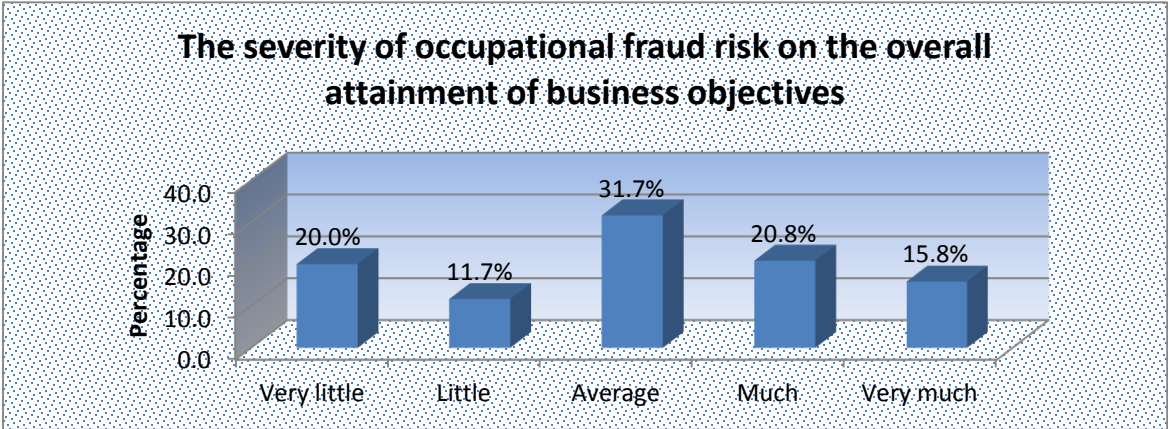


Figure 4.8: The severity of occupational fraud risk on the overall attainment of business objectives

Based on Figure 4.8, it appears that occupational fraud risk had a limited influence on the attainment of business objectives (52.5% of respondents indicated an above-average influence). Taking into account that the mean score was 3.0 (rating of 'average'), clear tangent planes emerge that the sustainability of sampled SMMEs was indeed influenced by occupational fraud risk – even though it may only be to a limited extent.

The above leads to the question as to how well internal control activities mitigated occupational fraud risk. As such, respondents were also asked to describe how internal control activities within their respective SMMEs aid in mitigating occupational fraud risk. A summary of the results is graphically depicted in Figure 4.9.

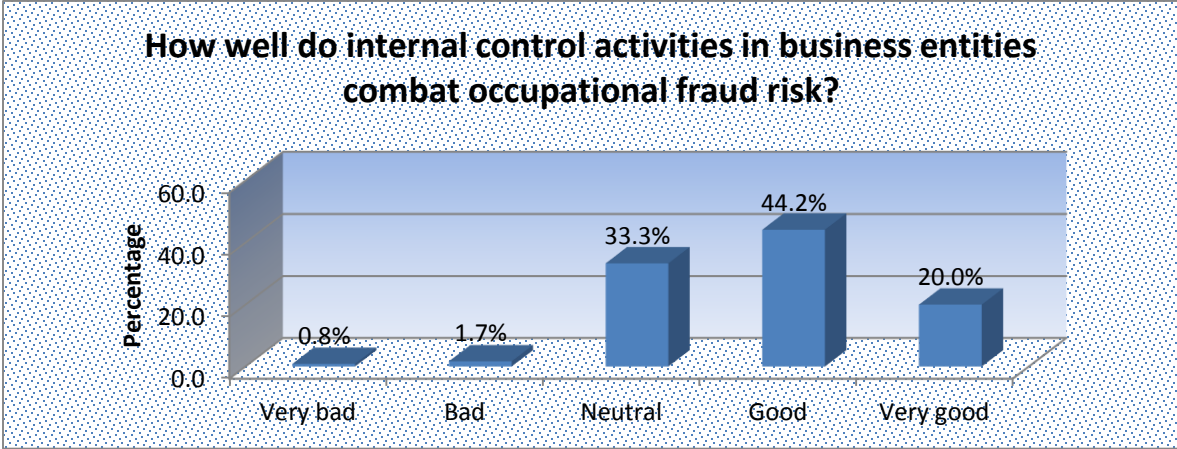


Figure 4.9: How well do internal control activities in business entities combat occupational fraud risk?

Taking Figure 4.9 into account, it is apparent that the internal control activities used by sampled South African FMCG SMMEs to mitigate occupational fraud risk were good (64.2% of respondents were in agreement). The latter is supported by a mean score which was 3.8 (rating between 'neutral' and 'good').

It is highly probable that responses were subject to respondent bias. Otherwise stated, the extent to which South African FMCG SMMEs are influenced by occupational fraud risk and/or the soundness of their implemented internal control activities may have been underrated and/or overrated. For this reason, inferential statistics were performed to determine the relationship between the internal control activities and the occupational fraud risk evident in sampled SMMEs, taking the form of Spearman rank correlation.

4.10 RELATIONSHIPS BETWEEN INTERNAL CONTROL ACTIVITIES DEPLOYED IN SAMPLED SOUTH AFRICAN FMCG SMMEs AND OCCUPATIONAL FRAUD RISK

In this section, the focus is shifted on testing the relationships between implemented internal control activities in sampled South African FMCG SMMEs and occupational fraud risk. This was performed to address the final investigative question while simultaneously testing respondent bias.

Notwithstanding the above, in order to specifically test whether internal control activities used by sampled South African FMCG SMMEs combat occupational fraud risk, Spearman rank correlations were performed. Before displaying the results of Spearman rank correlation, it should be noted that each calculated correlation consists of: 1) a direction, and 2) a strength. The latter is explained in more detail below:

- Direction: The direction of the correlation shows how the relationships work between variables. Moreover, the correlation direction can either be positive (ranging between 0.01– 1.00) and/or negative (ranging between -1.00 - -0.01).
- Strength: The strength signifies how strong correlations are. Correlations can be very weak (ranging between 0.00 and 0.199 / -0.199 and 0.00), weak (ranging between 0.200 and 0.399 / -0.399 and -0.200), moderate (ranging between 0.400 and 0.599 / -0.599 and -0.400), strong (ranging between 0.600 and 0.799 / -0.799 and -0.600) and very strong (ranging between 0.800 and 1.00 / -1.00 and -0.800).

A summary of all the Spearman rank correlations performed is evident in Table 4.13 and Table 4.14, and stemming from these results, it is apparent that the statistically significant correlations between internal control activities implemented in sampled South African FMCG SMMEs and occupational fraud risk were negatively weak. This view is supported by the fact that out of a total of 806 correlations tested, only 157 (19.47%) were deemed to be statistically significant at the 99% level, and 149 (18.49%) were statistically significant at the 95% level. Out of these 306 statistically significant correlations, only two (0.66%) were positive, while 304 (99.34%) were negative. Moreover, when the focus is placed on the strength of all statistically significant correlations, 63 (20.58%) were 'very weak', 239 (78.10%) were 'weak' and two (0.66%) were 'moderate'. A more detailed summary of all the statistically significant correlations is shown in Table 4.15.

Table 4.13: All correlations between occupational fraud risk and internal control activities (part 1)

		Corruption	Conflict of interest	Bribery	Theft of stationery	Theft of money	Theft of inventory (stock)	Sales are sometimes not recorded	Purchases are sometimes not recorded	Receipts are sometimes not recorded	Payments are sometimes not recorded	Incorrect sales amounts are sometimes recorded	Incorrect purchases amounts are sometimes recorded	Incorrect receipts amounts are sometimes recorded
Source documents are used when goods are bought	Correlation Coefficient	-0.109	-.229*	-.258**	-0.026	-.213*	-.220*	-.277**	-.221*	-.234*	-.327**	-.290**	-.331**	-.355**
	Sig. (2-tailed)	0.235	0.012	0.004	0.780	0.020	0.016	0.002	0.015	0.010	0.000	0.001	0.000	0.000
Source documents are used when goods are received	Correlation Coefficient	-0.089	-.261**	-.226*	-0.018	-.205*	-.224*	-.222*	-.193*	-.245**	-.305**	-.285**	-.299**	-.368**
	Sig. (2-tailed)	0.333	0.004	0.013	0.842	0.025	0.014	0.015	0.035	0.007	0.001	0.002	0.001	0.000
Source documents are used when goods are sold	Correlation Coefficient	-0.042	-.239**	-.238**	-0.009	-.171	-.234*	-.275**	-0.178	-.232*	-.278**	-.312**	-.300**	-.322**
	Sig. (2-tailed)	0.649	0.009	0.009	0.926	0.062	0.010	0.002	0.052	0.011	0.002	0.001	0.001	0.000
Source documents are used when payments are made	Correlation Coefficient	-0.080	-.262**	-.260**	-0.062	-.189*	-.225*	-.227*	-0.174	-.234*	-.254**	-.259**	-.270**	-.338**
	Sig. (2-tailed)	0.382	0.004	0.004	0.502	0.039	0.014	0.013	0.057	0.010	0.005	0.004	0.003	0.000
Source documents are used when money is received	Correlation Coefficient	-0.161	-.257**	-.266**	-0.102	-.286**	-.288**	-.232*	-.218*	-.239**	-.277**	-.347**	-.310**	-.355**
	Sig. (2-tailed)	0.080	0.005	0.003	0.266	0.002	0.001	0.011	0.017	0.009	0.002	0.000	0.001	0.000

Copies of all relevant source documents used are kept	Correlation Coefficient	0.001	-.204*	-.185*	0.060	-.0137	-.189*	-0.145	-0.174	-0.175	-.283**	-.242**	-.309**	-.313**
	Sig. (2-tailed)	0.989	0.026	0.044	0.517	0.136	0.039	0.113	0.058	0.056	0.002	0.008	0.001	0.001
Passwords are needed to access computers	Correlation Coefficient	0.022	-.184*	-.0174	0.127	-.0031	-.183*	-0.046	-0.136	-0.144	-.221*	-0.116	-.185*	-.209*
	Sig. (2-tailed)	0.814	0.044	0.057	0.167	0.739	0.045	0.621	0.139	0.118	0.015	0.208	0.043	0.022
CCTV cameras are used	Correlation Coefficient	-0.047	-0.113	-.0102	0.092	0.069	-0.134	-0.077	-0.004	-0.043	-0.064	-0.092	-0.074	-0.055
	Sig. (2-tailed)	0.608	0.218	0.266	0.316	0.455	0.145	0.406	0.962	0.644	0.488	0.319	0.422	0.552
Alarm systems are used	Correlation Coefficient	-0.015	-0.088	-.0092	.196*	0.017	-.206*	-0.001	-0.015	-0.074	-0.128	-0.128	-0.076	-0.085
	Sig. (2-tailed)	0.867	0.337	0.318	0.032	0.854	0.024	0.988	0.867	0.423	0.163	0.162	0.407	0.356
Security guards are used	Correlation Coefficient	0.090	0.163	0.093	.200*	0.100	-0.127	0.017	0.075	0.116	0.013	0.012	0.066	0.080
	Sig. (2-tailed)	0.329	0.075	0.310	0.029	0.276	0.168	0.851	0.418	0.206	0.889	0.900	0.473	0.386
There are access controls at entrances	Correlation Coefficient	-0.121	0.023	-.0153	-0.053	-.0064	-0.111	-0.158	-0.067	-0.090	-0.144	-0.140	-0.061	-0.121
	Sig. (2-tailed)	0.189	0.803	0.094	0.566	0.488	0.226	0.085	0.470	0.328	0.117	0.128	0.506	0.188

Access controls are evident at all doors	Correlation Coefficient	-0.168	-0.019	-0.173	-0.086	-0.106	-.205*	-0.089	-0.081	-0.104	-0.120	-0.145	-0.069	-0.112
	Sig. (2-tailed)	0.067	0.836	0.059	0.350	0.250	0.025	0.334	0.376	0.260	0.194	0.114	0.457	0.224
Access controls are evident at tills and/or safes	Correlation Coefficient	-0.073	-0.134	-.187*	-0.058	-0.031	-.231*	-0.154	-0.113	-0.143	-0.148	-0.125	-0.108	-0.149
	Sig. (2-tailed)	0.427	0.146	0.041	0.531	0.736	0.011	0.094	0.217	0.120	0.108	0.174	0.239	0.104
Proper authorisation activities exist at all hierarchical levels	Correlation Coefficient	0.038	-.244**	-.185*	0.006	-0.097	-.250**	-.188*	-.193*	-0.175	-.281**	-.247**	-.251**	-.272**
	Sig. (2-tailed)	0.679	0.007	0.043	0.950	0.293	0.006	0.040	0.035	0.056	0.002	0.007	0.006	0.003
Only management have power of authorisation	Correlation Coefficient	0.018	-.305**	-.236**	0.063	-0.153	-.292**	-.203*	-.186*	-.192*	-.299**	-.247**	-.293**	-.295**
	Sig. (2-tailed)	0.843	0.001	0.010	0.497	0.094	0.001	0.026	0.042	0.035	0.001	0.007	0.001	0.001
Employees have power of authorisation with management permission	Correlation Coefficient	-0.170	-.316**	-.278**	-0.104	-.224*	-.188*	-.260**	-.244**	-.281**	-.323**	-.309**	-.394**	-.364**
	Sig. (2-tailed)	0.063	0.000	0.002	0.258	0.014	0.040	0.004	0.007	0.002	0.000	0.001	0.000	0.000
There are independent checks performed on business processes.	Correlation Coefficient	-0.066	-.222*	-0.163	-0.023	-0.118	-.223*	-.187*	-0.113	-.205*	-.230*	-.297**	-.318**	-.285**
	Sig. (2-tailed)	0.476	0.015	0.076	0.804	0.200	0.014	0.041	0.221	0.024	0.012	0.001	0.000	0.002

Quality checks are performed on goods received	Correlation Coefficient	-0.054	-.227*	-0.156	0.155	-0.090	-.207*	-.180*	-0.060	-0.133	-.189*	-.232*	-.198*	-.186*
	Sig. (2-tailed)	0.555	0.013	0.088	0.090	0.330	0.023	0.049	0.513	0.148	0.039	0.011	0.030	0.042
Quality checks are performed on goods before they are sold	Correlation Coefficient	-0.031	-.274**	-.232*	0.163	-0.091	-.192*	-.225*	-0.154	-0.175	-.288**	-.227*	-.260**	-.249**
	Sig. (2-tailed)	0.735	0.002	0.011	0.075	0.325	0.036	0.013	0.093	0.056	0.001	0.013	0.004	0.006
Periodic cash counts are performed (counting cash in the till)	Correlation Coefficient	-0.037	-.307**	-.269**	0.036	-0.127	-.216*	-0.128	-.201*	-.203*	-.248**	-0.153	-0.175	-.212*
	Sig. (2-tailed)	0.687	0.001	0.003	0.695	0.165	0.018	0.165	0.028	0.026	0.006	0.094	0.056	0.020
Periodic stock/inventory counts are performed	Correlation Coefficient	-0.017	-.255**	-.188*	0.099	-0.156	-.333**	-0.095	-0.145	-.190*	-.181*	-.197*	-.207*	-0.177
	Sig. (2-tailed)	0.857	0.005	0.039	0.284	0.089	0.000	0.304	0.113	0.037	0.048	0.031	0.023	0.053
Periodic reconciliations (e.g. bank reconciliation, etc.) are performed	Correlation Coefficient	-0.088	-.326**	-.199*	0.145	-0.098	-.219*	-0.160	-.225*	-.184*	-.278**	-.241**	-.322**	-.291**
	Sig. (2-tailed)	0.338	0.000	0.029	0.113	0.285	0.016	0.080	0.013	0.044	0.002	0.008	0.000	0.001
The person that authorises transactions does not record or authorise them	Correlation Coefficient	-0.131	-0.096	-0.172	-0.030	-0.171	-0.029	-0.120	-0.147	-0.079	-0.168	-0.171	-0.168	-0.172
	Sig. (2-tailed)	0.155	0.297	0.060	0.748	0.062	0.753	0.191	0.109	0.389	0.067	0.062	0.067	0.061
The person that executes transactions	Correlation Coefficient	-0.131	-0.123	-.199*	-0.020	-0.095	-0.007	-0.162	-0.159	-0.083	-0.174	-0.124	-0.141	-0.174

does not authorise or record them	Sig. (2-tailed)	0.155	0.182	0.030	0.832	0.302	0.936	0.077	0.084	0.367	0.058	0.177	0.124	0.057
The person that records transactions does not authorise or execute them	Correlation Coefficient	-0.027	-0.088	-.201*	-0.072	-.093	-0.026	-0.110	-0.100	-0.054	-0.148	-0.149	-0.165	-.194*
	Sig. (2-tailed)	0.770	0.338	0.028	0.435	0.312	0.779	0.233	0.277	0.559	0.106	0.105	0.072	0.034
Clear guidelines and instructions exist on the personal use of assets	Correlation Coefficient	0.013	-.214*	-.263**	0.150	-.118	-.203*	-.246**	-.254**	-.219*	-.313**	-.256**	-.315**	-.317**
	Sig. (2-tailed)	0.890	0.019	0.004	0.103	0.199	0.027	0.007	0.005	0.016	0.001	0.005	0.000	0.000
Training is provided to employees when necessary	Correlation Coefficient	0.007	-.194*	-.206*	0.105	-.097	-.184*	-0.171	-0.102	-0.149	-.243**	-.215*	-.235**	-.277**
	Sig. (2-tailed)	0.941	0.034	0.024	0.253	0.290	0.044	0.062	0.266	0.105	0.008	0.019	0.010	0.002
Employees' competence are periodically assessed	Correlation Coefficient	-0.046	-0.049	-.132	0.066	-.052	-0.124	-0.098	-0.014	-0.056	-0.135	-0.150	-0.105	-0.129
	Sig. (2-tailed)	0.615	0.592	0.151	0.473	0.574	0.178	0.285	0.875	0.547	0.141	0.103	0.252	0.160
Staff are supervised (e.g. by supervisor)	Correlation Coefficient	-0.032	-.200*	-.234**	0.072	-.105	-.248**	-0.122	-0.124	-0.077	-.230*	-0.161	-.217*	-.204*
	Sig. (2-tailed)	0.727	0.029	0.010	0.436	0.253	0.006	0.183	0.176	0.402	0.011	0.078	0.018	0.025
Staff are monitored (e.g. for behaviour changes)	Correlation Coefficient	0.000	-0.169	-.178	0.070	-.134	-.256**	-0.111	-0.056	-0.105	-0.174	-.247**	-.197*	-.207*
	Sig. (2-tailed)	0.998	0.064	0.051	0.447	0.143	0.005	0.229	0.545	0.252	0.058	0.007	0.031	0.024
Disciplinary procedures exist (e.g. verbal warnings, written warnings, etc.)	Correlation Coefficient	-0.046	-0.167	-.181*	0.067	-.129	-.201*	-0.157	-0.088	-0.075	-0.141	-0.125	-0.119	-0.128
	Sig. (2-tailed)	0.619	0.068	0.048	0.467	0.160	0.027	0.087	0.342	0.416	0.123	0.175	0.196	0.163

Table 4.14: All correlations between occupational fraud risk and internal control activities (part 2)

		Incorrect payment amounts are sometimes recorded	Payroll schemes are not validated	Personal expenses are paid with business funds	Late payments are made to creditors	Late receipts are received from debtors	Payments are made to made-up vendors	Invoices are received from made-up vendors	Invoices are sometimes paid twice	Payments are sometimes made for items not received	Credit is sometimes offered to unauthorised customers	Embezzlement	Business hours are used by employees to do personal work	Inventory is sometimes tampered with by employees for their personal benefit
Source documents are used when goods are bought	Correlation Coefficient	-.371**	-.207*	-.271**	-.299**	-.0176	-.214*	-.197*	-0.162	-0.082	-0.177	-0.136	-.226*	-.235**
	Sig. (2-tailed)	0.000	0.023	0.003	0.001	0.054	0.019	0.031	0.078	0.376	0.053	0.140	0.013	0.010
Source documents are used when goods are received	Correlation Coefficient	-.393**	-.189*	-.228*	-.279**	-.0139	-.0155	-.0153	-0.153	-0.059	-.183*	-0.133	-.249**	-.244**
	Sig. (2-tailed)	0.000	0.038	0.012	0.002	0.129	0.091	0.095	0.094	0.524	0.045	0.149	0.006	0.007
Source documents are used when goods are sold	Correlation Coefficient	-.365**	-.0177	-.260**	-.304**	-.0169	-.0153	-.0160	-.211*	-0.068	-.180*	-0.139	-.222*	-.229*
	Sig. (2-tailed)	0.000	0.053	0.004	0.001	0.065	0.096	0.080	0.021	0.458	0.049	0.131	0.015	0.012
Source documents are used when payments are made	Correlation Coefficient	-.381**	-.195*	-.238**	-.258**	-.0133	-.0159	-.0139	-0.168	-0.059	-0.151	-0.116	-.272**	-.224*
	Sig. (2-tailed)	0.000	0.033	0.009	0.004	0.146	0.082	0.129	0.067	0.522	0.099	0.207	0.003	0.014
Source documents are used when money is received	Correlation Coefficient	-.399**	-.228*	-.213*	-.264**	-.0193*	-.0209*	-.0154	-0.172	-0.097	-0.149	-0.107	-.207*	-.202*
	Sig. (2-tailed)	0.000	0.012	0.020	0.004	0.035	0.022	0.093	0.060	0.290	0.105	0.244	0.023	0.027
Copies of all relevant source documents used are kept	Correlation Coefficient	-.319**	-.0154	-.194*	-.241**	-.0104	-.0136	-.0118	-0.109	-0.016	-0.135	-0.072	-.305**	-.188*
	Sig. (2-tailed)	0.000	0.094	0.034	0.008	0.258	0.140	0.199	0.235	0.864	0.143	0.434	0.001	0.040

Passwords are needed to access computers	Correlation Coefficient	-.217*	-	-	-.214*	-	-	-	-0.054	0.029	-0.094	-0.063	-.253**	-0.173
	Sig. (2-tailed)	0.017	0.247	0.127	0.019	0.301	0.213	0.131	0.559	0.750	0.309	0.493	0.005	0.059
CCTV cameras are used	Correlation Coefficient	-0.055	0.059	-	-0.084	0.014	0.035	0.007	-0.006	0.105	-0.002	-0.009	-.279**	-0.064
	Sig. (2-tailed)	0.550	0.522	0.719	0.359	0.877	0.707	0.940	0.951	0.255	0.986	0.925	0.002	0.490
Alarm systems are used	Correlation Coefficient	-0.114	0.114	0.040	0.023	0.033	0.095	0.090	0.098	0.112	0.015	-0.003	-.335**	-0.096
	Sig. (2-tailed)	0.213	0.215	0.663	0.802	0.722	0.303	0.326	0.285	0.225	0.867	0.974	0.000	0.295
Security guards are used	Correlation Coefficient	0.024	0.085	0.166	0.074	0.086	0.124	0.091	0.006	-0.007	0.046	0.136	-.225*	0.010
	Sig. (2-tailed)	0.793	0.354	0.070	0.422	0.352	0.179	0.322	0.949	0.942	0.618	0.140	0.013	0.911
There are access controls at entrances	Correlation Coefficient	-0.148	-	-	-0.117	-	-	-	-0.031	0.022	-0.109	-0.013	-0.070	-0.149
	Sig. (2-tailed)	0.107	0.064	0.082	0.202	0.127	0.035	0.056	0.733	0.809	0.236	0.886	0.449	0.105
Access controls are evident at all doors	Correlation Coefficient	-0.116	-	-	-0.155	-	-	-	0.046	0.029	-0.089	-0.001	-0.059	-0.164
	Sig. (2-tailed)	0.209	0.072	0.040	0.090	.185*	0.029	0.017	0.619	0.753	0.333	0.989	0.523	0.074

Access controls are evident at tills and/or safes	Correlation Coefficient	-0.134	-	-	-.235**	-	-	-	-0.060	-0.010	-0.126	-0.029	-.239**	-.199*
	Sig. (2-tailed)	0.146	0.368	0.197	0.010	0.251	0.459	0.329	0.518	0.910	0.170	0.749	0.009	0.029
Proper authorisation activities exist at all hierarchical levels	Correlation Coefficient	-.319**	-	-	-.300**	-	-	-	-0.172	-0.083	-.186*	-0.061	-.274**	-.182*
	Sig. (2-tailed)	0.000	0.030	0.050	0.001	0.101	0.119	0.086	0.060	0.365	0.042	0.510	0.002	0.046
Only management have power of authorisation	Correlation Coefficient	-.330**	-	-	-.238**	-	-	-	-0.147	-0.043	-0.162	-0.152	-.397**	-.224*
	Sig. (2-tailed)	0.000	0.147	0.048	0.009	0.137	0.247	0.202	0.109	0.638	0.076	0.098	0.000	0.014
Employees have power of authorisation with management permission	Correlation Coefficient	-.334**	-	-	-.303**	-	-	-	-.181*	-0.110	-0.092	-0.127	-0.127	-.247**
	Sig. (2-tailed)	0.000	0.024	0.102	0.001	0.008	0.008	0.093	0.048	0.231	0.315	0.166	0.166	0.007
There are independent checks performed on business processes.	Correlation Coefficient	-.251**	-	-	-.327**	-	-	-	-0.029	0.017	-0.094	0.035	-0.177	-0.150
	Sig. (2-tailed)	0.006	0.152	0.105	0.000	0.017	0.238	0.803	0.749	0.851	0.309	0.705	0.054	0.102
Quality checks are performed on goods received	Correlation Coefficient	-.241**	-	-	-.221*	-	-	-	-0.076	0.053	-0.053	-0.066	-.331**	-.186*
	Sig. (2-tailed)	0.008	0.323	0.222	0.015	0.229	0.741	0.599	0.409	0.565	0.563	0.471	0.000	0.042
Quality checks are performed on goods before they are sold	Correlation Coefficient	-.282**	-	-	-.221*	-	-	-	-0.102	-0.039	-0.133	-0.104	-.343**	-.204*
	Sig. (2-tailed)	0.002	0.276	0.093	0.015	0.048	0.415	0.299	0.267	0.674	0.148	0.258	0.000	0.026

Periodic cash counts are performed (counting cash in the till)	Correlation Coefficient	-.255**	-	-	-.262**	-	-	-	-0.126	-0.091	-.181*	-0.171	-.490**	-.216*
	Sig. (2-tailed)	0.005	0.027	0.006	0.004	0.050	0.041	0.026	0.172	0.325	0.048	0.062	0.000	0.018
Periodic stock/inventory counts are performed	Correlation Coefficient	-0.154	-	-	-.304**	-	-	-	-0.129	-0.073	-0.150	-.187*	-.440**	-.248**
	Sig. (2-tailed)	0.093	0.124	0.055	0.001	0.011	0.053	0.112	0.161	0.427	0.103	0.041	0.000	0.006
Periodic reconciliations (e.g. bank reconciliation, etc.) are performed	Correlation Coefficient	-.280**	-	-	-.212*	-	-	-	-.213*	-0.175	-.196*	-.221*	-.384**	-.267**
	Sig. (2-tailed)	0.002	0.066	0.368	0.020	0.102	0.044	0.076	0.019	0.056	0.032	0.015	0.000	0.003
The person that authorises transactions does not record or authorise them	Correlation Coefficient	-0.162	-	-	-0.119	-	-	-	-0.053	-0.041	-0.128	-0.093	0.132	-0.092
	Sig. (2-tailed)	0.077	0.467	0.609	0.196	0.003	0.287	0.942	0.566	0.655	0.165	0.311	0.152	0.315
The person that executes transactions does not authorise or record them	Correlation Coefficient	-.188*	-	-	-0.084	-	-	-	-0.124	-0.060	-0.153	-0.107	0.062	-0.113
	Sig. (2-tailed)	0.040	0.403	0.459	0.360	0.033	0.533	0.500	0.177	0.512	0.096	0.243	0.500	0.219
The person that records transactions does not authorise or execute them	Correlation Coefficient	-.228*	-	-	-.190*	-	-	-	-0.149	-0.066	-0.162	-0.103	0.012	-0.164
	Sig. (2-tailed)	0.012	0.121	0.108	0.038	0.002	0.153	0.145	0.105	0.476	0.077	0.265	0.900	0.074

Clear guidelines and instructions exist on the personal use of assets	Correlation Coefficient	-.327**	-	-	-.229*	-	-	-	-0.161	-0.160	-0.173	-0.129	-.396**	-.279**
	Sig. (2-tailed)	0.000	0.080	0.033	0.012	0.104	0.073	0.049	0.080	0.081	0.058	0.160	0.000	0.002
Training is provided to employees when necessary	Correlation Coefficient	-.299**	-	-	-.201*	-	-	-	-0.118	-0.083	-0.090	-0.075	-.337**	-0.168
	Sig. (2-tailed)	0.001	0.244	0.181	0.027	0.321	0.395	0.302	0.199	0.366	0.329	0.414	0.000	0.067
Employees' competence are periodically assessed	Correlation Coefficient	-.191*	-	-	-0.156	-	-	-	-0.078	-0.083	-0.056	-0.073	-.219*	-0.113
	Sig. (2-tailed)	0.037	0.252	0.284	0.089	0.456	0.508	0.328	0.398	0.368	0.541	0.430	0.016	0.219
Staff are supervised (e.g. by supervisor)	Correlation Coefficient	-.196*	-	-	-.216*	-	-	-	-0.071	-0.066	0.005	-0.044	-.391**	-0.083
	Sig. (2-tailed)	0.032	0.117	0.390	0.018	0.440	0.151	0.331	0.442	0.471	0.953	0.634	0.000	0.369
Staff are monitored (e.g. for behaviour changes)	Correlation Coefficient	-.236**	-	-	-.181*	-	-	-	-0.061	-0.091	-0.022	-0.099	-.359**	-0.153
	Sig. (2-tailed)	0.009	0.156	0.579	0.047	0.194	0.266	0.425	0.507	0.325	0.808	0.284	0.000	0.095
Disciplinary procedures exist (e.g. verbal warnings, written warnings, etc.)	Correlation Coefficient	-0.105	-	-	-0.107	0.046	-	-	-0.048	-0.018	0.000	-0.085	-.372**	-0.124
	Sig. (2-tailed)	0.252	0.279	0.246	0.246	0.621	0.457	0.651	0.601	0.843	0.996	0.354	0.000	0.177
**. Correlation is significant at the 0.01 level (2-tailed).														
*. Correlation is significant at the 0.05 level (2-tailed).														

Table 4.15: A summary of statistically significant correlations between internal control activities implemented in sampled South African FMCG SMMEs and occupational fraud risk

TOTALS		0.00 – 0.199	0.200 – 0.399	0.400 – 0.599
		VERY WEAK	WEAK	MODERATE
TESTED RELATIONSHIPS	806	-	-	-
SIGNIFICANT	306	-	-	-
POSITIVE	2	1	1	-
NEGATIVE	304	63	239	2

With the above in mind, and for the sake of clarity, all statistically significant correlations are interpreted in Table 4.16.

Table 4.16: A summary of direction(s) and strength(s) of statistically significant correlations between internal control activities implemented in South African FMCG SMMEs and their occupational fraud risk

Significant correlation	Strength	Direction	Interpretation
Adequate document usage and design			
'Source documents are used when goods are bought' and 'conflict of interest' (-0.229*)	Weak	Negative	Source documents were used when goods were bought which resulted in the mitigation of conflict of interest.
'Source documents are used when goods are bought' and 'bribery' (-0.258**)	Weak	Negative	Source documents were used when goods were bought which resulted in the mitigation of bribery.
'Source documents are used when goods are bought' and 'theft of money' (-0.213*)	Weak	Negative	Source documents were used when goods were brought which resulted in the mitigation of theft of money.
Source documents are used when goods are bought' and 'theft of inventory' (-0.220*)	Weak	Negative	Source documents were used when goods were brought which resulted in the mitigation of theft of inventory.
'Source documents are used when goods are bought' and 'sales are sometimes not recorded' (-0.277**)	Weak	Negative	Source documents were used when goods were brought which resulted in the mitigation of sales not being recorded.
'Source documents are used when goods are bought' and 'purchases are sometimes not recorded' (-0.221*)	Weak	Negative	Source documents were used when goods were brought which resulted in the mitigation of purchases not being recorded.
'Source documents are used when goods are bought' and 'receipts are sometimes not recorded' (-0.234*)	Weak	Negative	Source documents were used when goods were brought which resulted in the mitigation of receipts not being recorded.
'Source documents are used when goods are bought' and 'payments are sometimes not recorded' (-0.327**)	Weak	Negative	Source documents were used when goods were brought which resulted in the mitigation of payments not being recorded.
'Source documents are used when goods are bought' and 'incorrect sales amounts are sometimes not recorded' (-0.290**)	Weak	Negative	Source documents were used when goods were brought which resulted in the mitigation of incorrect sales amounts being recorded.
'Source documents are used when goods are bought' and 'incorrect purchase amounts are sometimes not recorded' (-0.331**)	Weak	Negative	Source documents were used when goods were brought which resulted in the mitigation of incorrect purchase amounts being recorded.
'Source documents are used when goods are bought' and 'incorrect receipts amounts are sometimes not recorded' (-0.355**)	Weak	Negative	Source documents were used when goods were brought which resulted in the mitigation of incorrect receipts amounts being recorded.
'Source documents are used when goods are bought' and 'incorrect payment amounts are sometimes not recorded' (-0.371**)	Weak	Negative	Source documents were used when goods were brought which resulted in the mitigation of incorrect payment amounts being recorded.

'Source documents are used when goods are bought' and 'payroll schemes are not validated' (-0.207*)	Weak	Negative	Source documents were used when goods were brought which resulted in the mitigation of payroll schemes to be performed.
'Source documents are used when goods are bought' and 'personal expenses are paid with business funds' (-0.271**)	Weak	Negative	Source documents were used when goods were brought which resulted in the mitigation of paying personal expenses with business funds.
'Source documents are used when goods are bought' and 'late payments made to creditors' (-0.299**)	Weak	Negative	Source documents were used when goods were brought which resulted in the mitigation of late payments made to creditors.
'Source documents are used when goods are bought' and 'payments are made to made-up vendors' (-0.214*)	Weak	Negative	Source documents were used when goods were brought which resulted in the mitigation of late payments made to made-up vendors.
'Source documents are used when goods are bought' and 'invoices are received from made-up vendors' (-0.197*)	Very Weak	Negative	Source documents were used when goods were brought which resulted in the mitigation of invoices received from made-up vendors.
'Source documents are used when goods are bought' and 'business hours are used by employees to do personal work' (-0.226*)	Weak	Negative	Source documents were used when goods were brought which resulted in the mitigation of employees using business hours to perform personal work.
'Source documents are used when goods are bought' and 'inventory is sometimes tampered with by employees for their personal benefit' (-0.235**)	Weak	Negative	Source documents were used when goods were brought which resulted in the mitigation of inventory to be tampered with by employees for personal benefit.
'Source documents are used when goods are received' and 'conflict of interest' (-0.261**)	Weak	Negative	Source documents were used when goods were received which resulted in the mitigation of conflict of interest.
'Source documents are used when goods are received' and 'bribery' (-0.226*)	Weak	Negative	Source documents were used when goods were received which resulted in the mitigation of bribery.
'Source documents are used when goods are received' and 'theft of money' (-0.205*)	Weak	Negative	Source documents were used when goods were received which resulted in the mitigation of theft of money.
'Source documents are used when goods are received' and 'theft of inventory' (-0.224*)	Weak	Negative	Source documents were used when goods were received which resulted in the mitigation of theft of inventory.
'Source documents are used when goods are received' and 'sales are sometimes not recorded' (-0.222*)	Weak	Negative	Source documents were used when goods were received which resulted in the mitigation of sales not being recorded.
'Source documents are used when goods are received' and 'purchases are sometimes not recorded' (-0.193*)	Very Weak	Negative	Source documents were used when goods were received which resulted in the mitigation of purchases not being recorded.
'Source documents are used when goods are received' and 'receipts are sometimes not recorded' (-0.245**)	Weak	Negative	Source documents were used when goods were received which resulted in the mitigation of receipts not being recorded.

'Source documents are used when goods are received' and 'payments are sometimes not recorded' (-0.305**)	Weak	Negative	Source documents were used when goods were received which resulted in the mitigation of payments not being recorded.
'Source documents are used when goods are received' and 'incorrect sales amounts are sometimes recorded' (-0.285**)	Weak	Negative	Source documents were used when goods were received which resulted in the mitigation of incorrect sales amounts being recorded.
'Source documents are used when goods are received' and 'incorrect purchases amounts are sometimes recorded' (-0.299**)	Weak	Negative	Source documents were used when goods were received which resulted in the mitigation of incorrect purchases amounts being recorded.
'Source documents are used when goods are received' and 'incorrect receipts amounts are sometimes recorded' (-0.368**)	Weak	Negative	Source documents were used when goods were received which resulted in the mitigation of incorrect receipts amounts being recorded and/or captured.
'Source documents are used when goods are received' and 'incorrect payment amounts are sometimes recorded' (-0.393**)	Weak	Negative	Source documents were used when goods were received which resulted in the mitigation of incorrect payment amounts being recorded and/or captured.
'Source documents are used when goods are received' and 'payroll schemes are not validated' (-0.189*)	Very Weak	Negative	Source documents were used when goods were received which resulted in the mitigation of payroll schemes to be performed.
'Source documents are used when goods are received' and 'personal expenses are paid with business funds' (-0.228*)	Weak	Negative	Source documents were used when goods were received which resulted in the mitigation of paying personal expenses with business funds.
'Source documents are used when goods are received' and 'late payments are made to creditors' (-0.279**)	Weak	Negative	Source documents were used when goods were received which resulted in the mitigation of late payments being made to creditors.
'Source documents are used when goods are received' and 'credit is sometimes offered to unauthorised customers' (-0.183*)	Very Weak	Negative	Source documents were used when goods were received which resulted in the mitigation of credit offered to unauthorised customers.
'Source documents are used when goods are received' and 'business hours are used by employees to do personal work' (-0.249**)	Weak	Negative	Source documents were used when goods were received which resulted in the mitigation of employees using business hours to perform personal work.
'Source documents are used when goods are received' and 'inventory is sometimes tampered with by employees for their personal benefit' (-0.244**)	Weak	Negative	Source documents were used when goods were received which resulted in the mitigation of inventory to be tampered with by employees for personal benefit.
'Source documents are used when goods are sold' and 'conflict of interest' (-0.239**)	Weak	Negative	Source documents were used when goods were sold which resulted in the mitigation of conflict of interest.
'Source documents are used when goods are sold' and 'bribery' (-0.238**)	Weak	Negative	Source documents were used when goods were sold which resulted in the mitigation of bribery.

'Source documents are used when goods are sold' and 'theft of inventory' (-0.234*)	Weak	Negative	Source documents were used when goods were sold which resulted in the mitigation of theft of inventory.
'Source documents are used when goods are sold' and 'sales are sometimes not recorded' (-0.275**)	Weak	Negative	Source documents were used when goods were sold which resulted in the mitigation of sales not being recorded and/or captured.
'Source documents are used when goods are sold' and 'receipts are sometimes not recorded' (-0.232*)	Weak	Negative	Source documents were used when goods were sold which resulted in the mitigation of receipts not being recorded and/or captured.
'Source documents are used when goods are sold' and 'payments are sometimes not recorded' (-0.278**)	Weak	Negative	Source documents were used when goods were sold which resulted in the mitigation of payments not being recorded and/or captured.
'Source documents are used when goods are sold' and 'incorrect sales amounts are sometimes not recorded' (-0.312**)	Weak	Negative	Source documents were used when goods were sold which resulted in the mitigation of incorrect sales amounts to be recorded and/or captured.
'Source documents are used when goods are sold' and 'incorrect purchase amounts are sometimes not recorded' (-0.300**)	Weak	Negative	Source documents were used when goods were sold which resulted in the mitigation of incorrect purchase amounts to be recorded and/or captured.
'Source documents are used when goods are sold' and 'incorrect receipts amounts are sometimes not recorded' (-0.322**)	Weak	Negative	Source documents were used when goods were sold which resulted in the mitigation of incorrect receipts amounts to be recorded and/or captured.
'Source documents are used when goods are sold' and 'incorrect payments amounts are sometimes not recorded' (-0.365**)	Weak	Negative	Source documents were used when goods were sold which resulted in the mitigation of incorrect payment amounts to be recorded and/or captured.
'Source documents are used when goods are sold' and 'personal expenses are paid with business funds' (-0.260**)	Weak	Negative	Source documents were used when goods were sold which resulted in the mitigation of personal payments made with business funds.
'Source documents are used when goods are sold' and 'late payments are made to creditors' (-0.304**)	Weak	Negative	Source documents were used when goods were sold which resulted in the mitigation of late payments made to creditors.
'Source documents are used when goods are sold' and 'invoices are sometimes paid twice' (-0.211*)	Weak	Negative	Source documents were used when goods were sold which resulted in the mitigation of invoices being paid twice.
'Source documents are used when goods are sold' and 'credit is sometimes offered to unauthorised customers' (-0.180*)	Very Weak	Negative	Source documents were used when goods were sold which resulted in the mitigation of offering credit to unauthorised customers.
'Source documents are used when goods are sold' and 'business hours are used by employees to do personal work' (-0.222*)	Weak	Negative	Source documents were used when goods were sold which resulted in the mitigation of employees misusing business hours to perform personal work.

'Source documents are used when goods are sold' and 'inventory is sometimes tampered with by employees for their personal benefit' (-0.229*)	Weak	Negative	Source documents were used when goods were sold which resulted in the mitigation of inventory to be tampered with by employees for personal benefit.
'Source documents are used when payments are made' and 'conflict of interest' (-0.262**)	Weak	Negative	Source documents were used when payments were made which resulted in the mitigation of conflict of interest.
'Source documents are used when payments are made' and 'bribery' (-0.260**)	Weak	Negative	Source documents were used when payments were made which resulted in the mitigation of bribery.
'Source documents are used when payments are made' and 'theft of money' (-0.189*)	Very Weak	Negative	Source documents were used when payments were made which resulted in the mitigation of theft of money.
'Source documents are used when payments are made' and 'theft of inventory' (-0.225*)	Weak	Negative	Source documents were used when payments were made which resulted in the mitigation of theft of inventory.
'Source documents are used when payments are made' and 'sales are sometimes not recorded' (-0.227*)	Weak	Negative	Source documents were used when payments were made which resulted in the mitigation of sales not being recorded and/or captured.
'Source documents are used when payments are made' and 'receipts are sometimes not recorded' (-0.234*)	Weak	Negative	Source documents were used when payments were made which resulted in the mitigation of receipts not being recorded and/or captured.
'Source documents are used when payments are made' and 'payments are sometimes not recorded' (-0.254**)	Weak	Negative	Source documents were used when payments were made which resulted in the mitigation of payments not being recorded and/or captured.
'Source documents are used when payments are made' and 'incorrect sales amounts are sometimes not recorded' (-0.259**)	Weak	Negative	Source documents were used when payments were made which resulted in the mitigation of incorrect sales amounts being recorded and/or captured.
'Source documents are used when payments are made' and 'incorrect purchase amounts are sometimes not recorded' (-0.270**)	Weak	Negative	Source documents were used when payments were made which resulted in the mitigation of incorrect purchase amounts being recorded and/or captured.
'Source documents are used when payments are made' and 'incorrect receipts amounts are sometimes not recorded' (-0.338**)	Weak	Negative	Source documents were used when payments were made which resulted in the mitigation of incorrect receipts amounts being recorded and/or captured.
'Source documents are used when payments are made' and 'incorrect payment amounts are sometimes not recorded' (-0.381**)	Weak	Negative	Source documents were used when payments were made which resulted in the mitigation of incorrect payment amounts being recorded and/or captured.
'Source documents are used when payments are made' and 'payroll schemes are not validated' (-0.195*)	Very Weak	Negative	Source documents were used when payments were made which resulted in the mitigation of payroll schemes to be performed.
'Source documents are used when payments are made' and 'personal expenses are paid with business funds' (-0.238**)	Weak	Negative	Source documents were used when payments were made which resulted in the mitigation of personal payments made with business funds.

'Source documents are used when payments are made' and 'late payments are made to creditors' (-0.258**)	Weak	Negative	Source documents were used when payments were made which resulted in the mitigation of late payments being made to creditors.
'Source documents are used when payments are made' and 'business hours are used by employees to do personal work' (-0.272**)	Weak	Negative	Source documents were used when payments were made which resulted in the mitigation of employees using business hours to perform personal work.
'Source documents are used when payments are made' and 'inventory is sometimes tampered with by employees for their personal benefit' (-0.224*)	Weak	Negative	Source documents were used when payments were made which resulted in the mitigation of inventory to be tampered with by employees for personal benefit.
'Source documents are used when money is received' and 'conflict of interest' (-0.257**)	Weak	Negative	Source documents were used when money was received which resulted in the mitigation of conflict of interest.
'Source documents are used when money is received' and 'bribery'(-0.266**)	Weak	Negative	Source documents were used when money was received which resulted in the mitigation of bribery.
'Source documents are used when money is received' and 'theft of money' (-0.286**)	Weak	Negative	Source documents were used when money was received which resulted in the mitigation of theft of money.
'Source documents are used when money is received' and 'theft of inventory' (-0.288**)	Weak	Negative	Source documents were used when money was received which resulted in the mitigation of theft of inventory.
'Source documents are used when money is received' and 'sales are sometimes not recorded' (-0.232*)	Weak	Negative	Source documents were used when money was received which resulted in the mitigation of sales not being recorded and/or captured.
'Source documents are used when money is received' and 'purchases are sometimes not recorded' (-0.218*)	Weak	Negative	Source documents were used when money was received which resulted in the mitigation of purchases not being recorded and/or captured.
'Source documents are used when money is received' and 'receipts are sometimes not recorded' (-0.239**)	Weak	Negative	Source documents were used when money was received which resulted in the mitigation of receipts not being recorded and/or captured.
'Source documents are used when money is received' and 'payments are sometimes not recorded' (-0.277**)	Weak	Negative	Source documents were used when money was received which resulted in the mitigation of payments not being recorded and/or captured.
'Source documents are used when money is received' and 'incorrect sales amounts are sometimes not recorded' (-0.347**)	Weak	Negative	Source documents were used when money was received which resulted in the mitigation of incorrect sales amounts being recorded and/or captured.
'Source documents are used when money is received' and 'incorrect purchase amounts are sometimes not recorded' (-0.310**)	Weak	Negative	Source documents were used when money was received which resulted in the mitigation of incorrect purchases amounts being recorded and/or captured.
'Source documents are used when money is received' and 'incorrect receipts amounts are sometimes not recorded' (-0.355**)	Weak	Negative	Source documents were used when money was received which resulted in the mitigation of incorrect receipts amounts being recorded and/or captured.

'Source documents are used when money is received' and 'incorrect payment amounts are sometimes not recorded' (-0.399**)	Weak	Negative	Source documents were used when money was received which resulted in the mitigation of incorrect payments amounts being recorded and/or captured.
'Source documents are used when money is received' and 'payroll schemes are not validated' (-0.228*)	Weak	Negative	Source documents were used when money was received which resulted in the mitigation of payroll schemes to be performed.
'Source documents are used when money is received' and 'personal expenses are paid with business funds' (-0.213*)	Weak	Negative	Source documents were used when money was received which resulted in the mitigation of personal payments made with business funds.
'Source documents are used when money is received' and 'late payments are made to creditors' (-0.264**)	Weak	Negative	Source documents were used when money was received which resulted in the mitigation of late payments being made to creditors.
'Source documents are used when money is received' and 'late payments are made to debtors' (-0.193*)	Very Weak	Negative	Source documents were used when money was received which resulted in the mitigation of late payments being made to debtors.
'Source documents are used when money is received' and 'payments are made to made-up vendors' (-0.209*)	Weak	Negative	Source documents were used when money was received which resulted in the mitigation of payments made to made-up vendors.
'Source documents are used when money is received' and 'business hours are used by employees to do personal work' (-0.207*)	Weak	Negative	Source documents were used when money were received which resulted in the mitigation of employees using business hours to perform personal work.
'Source documents are used when money is received' and 'inventory is sometimes tampered with by employees for their personal benefit' (-0.202*)	Weak	Negative	Source documents were used when money were received which resulted in the mitigation of inventory to be tampered with by employees for personal benefit.
'Copies of all relevant source documents used are kept' and 'conflict of interest' (-0.204*)	Weak	Negative	Copies of all relevant source documents used were kept which resulted in the mitigation of conflict of interest.
'Copies of all relevant source documents used are kept' and 'bribery' (-0.185*)	Very Weak	Negative	Copies of all relevant source documents used were kept which resulted in the mitigation of bribery.
'Copies of all relevant source documents used are kept' and 'theft of inventory' (-0.189*)	Very weak	Negative	Copies of all relevant source documents used were kept which resulted in the mitigation of theft of inventory.
'Copies of all relevant source documents used are kept' and 'payments are sometimes not recorded' (-0.283**)	Weak	Negative	Copies of all relevant source documents used were kept which resulted in the mitigation of payments not being recorded and/or captured.
'Copies of all relevant source documents used are kept' and 'incorrect sales amounts are sometimes recorded' (-0.242**)	Weak	Negative	Copies of all relevant source documents used were kept which resulted in the mitigation of incorrect sales amounts being recorded and/or captured.

'Copies of all relevant source documents used are kept' and 'incorrect purchase amounts are sometimes recorded' (-0.309**)	Weak	Negative	Copies of all relevant source documents used were kept which resulted in the mitigation of incorrect purchase amounts being recorded and/or captured.
'Copies of all relevant source documents used are kept' and 'incorrect receipts amounts are sometimes recorded' (-0.313**)	Weak	Negative	Copies of all relevant source documents used were kept which resulted in the mitigation of incorrect receipts amounts being recorded and/or captured.
'Copies of all relevant source documents used are kept' and 'incorrect payment amounts are sometimes recorded' (-0.319**)	Weak	Negative	Copies of all relevant source documents used were kept which resulted in the mitigation of incorrect payment amounts being recorded and/or captured.
'Copies of all relevant source documents used are kept' and 'personal expenses are paid with business funds' (-0.194*)	Very Weak	Negative	Copies of all relevant source documents used were kept which resulted in the mitigation of personal payments made with business funds.
'Copies of all relevant source documents used are kept' and 'late payments are made to creditors' (-0.241**)	Weak	Negative	Copies of all relevant source documents used were kept which resulted in the mitigation of late payments being made to creditors.
'Copies of all relevant source documents used are kept' and 'business hours are used by employees to do personal work' (-0.305**)	Weak	Negative	Copies of all relevant source documents used were kept which resulted in the mitigation of employees using business hours to perform personal work.
'Copies of all relevant source documents used are kept' and 'inventory is sometimes tampered with by employees for their personal benefit' (-0.188*)	Very Weak	Negative	Copies of all relevant source documents used were kept which resulted in the mitigation of inventory to be tampered with by employees for personal satisfaction.
Safeguarding of assets			
'Passwords are needed to access computers' and 'conflict of interest' (-0.184*)	Very Weak	Negative	Passwords were needed to gain access to computers which resulted in the mitigation of conflict of interest.
'Passwords are needed to access computers' and 'theft of inventory' (-0.183*)	Very Weak	Negative	Passwords were needed to gain access to computers which resulted in the mitigation of theft of inventory.
'Passwords are needed to access computers' and 'payments are sometimes not recorded' (-0.221*)	Weak	Negative	Passwords were needed to gain access to computers which resulted in the mitigation of payments not being recorded and/or captured.
'Passwords are needed to access computers' and 'incorrect purchases amounts are sometimes recorded' (-0.185*)	Very Weak	Negative	Passwords were needed to gain access to computers which resulted in the mitigation of incorrect purchases amounts to be recorded and/or captured.
'Passwords are needed to access computers' and 'incorrect receipts amounts are sometimes recorded' (-0.209*)	Weak	Negative	Passwords were needed to gain access to computers which resulted in the mitigation of incorrect receipts amounts to be recorded and/or captured.
'Passwords are needed to access computers' and 'incorrect payment amounts are sometimes recorded' (-0.217*)	Weak	Negative	Passwords were needed to gain access to computers which resulted in the mitigation of incorrect payments amounts to be recorded and/or captured.

'Passwords are needed to access computers' and 'late payments are made to creditors' (-0.214*)	Weak	Negative	Passwords were needed to gain access to computers which resulted in the mitigation of late payments to be made to creditors.
'Passwords are needed to access computers' and 'business hours are used by employees to do personal work' (-0.253**)	Weak	Negative	Passwords were needed to gain access to computers which resulted in the mitigation of employees using business hours to perform personal work.
'CCTV cameras are used' and 'business hours are used by employees to do personal work' (-0.279**)	Weak	Negative	CCTV cameras were used which resulted in the mitigation of employees using business hours to perform personal work.
'Alarm systems are used' and 'theft of stationery' (0.196*)	Very Weak	Positive	Alarms systems were not used which resulted in theft of inventory to materialise.
'Alarm systems are used' and 'theft of inventory' (-0.206*)	Weak	Negative	Alarm systems were used which resulted in the mitigation of theft of inventory.
'Alarm systems are used' and 'business hours are used by employees to do personal work' (-0.335**)	Weak	Negative	Alarm systems were used which resulted in the mitigation of employees using business hours to perform personal work.
'Security guards are used' and 'theft of stationery' (0.200*)	Weak	Positive	Security guards were not used which resulted in theft of stationery to materialise.
'Security guards are used' and 'business hours are used by employees to do personal work' (-0.225*)	Weak	Negative	Security guards were used which resulted in the mitigation of employees using business hours to perform personal work.
'Access controls are evident at all doors' and 'theft of inventory' (-0.205*)	Weak	Negative	Access controls were evident at all doors which resulted in the mitigation of theft of inventory.
'Access controls are evident at all doors' and 'late receipts are received from debtors' (-0.185*)	Very Weak	Negative	Access controls were evident at all doors which resulted in the mitigation of late receipts to be received from debtors.
'Access controls are evident at tills and/or safes' and 'bribery' (-0.187*)	Very Weak	Negative	Access controls were evident at all tills and/or safes which resulted in the mitigation of bribery.
'Access controls are evident at tills and/or safes' and 'theft of inventory' (-0.231*)	Weak	Negative	Access controls were evident at all tills and/or safes which resulted in the mitigation of theft of inventory.
'Access controls are evident at tills and/or safes' and 'late payments are made to creditors' (-0.235**)	Weak	Negative	Access controls were evident at all tills and/or safes which resulted in the mitigation of late payments to be made to creditors.
'Access controls are evident at tills and/or safes' and 'business hours are used by employees to do personal work' (-0.239**)	Weak	Negative	Access controls were evident at all tills and/or safes which resulted in the mitigation of employees using business hours to perform personal work.

'Access controls are evident at tills and/or safes' and 'inventory is sometimes tampered with by employees for their personal benefit' (-0.199*)	Very Weak	Negative	Access controls were evident at all tills and/or safes which resulted in the mitigation of inventory to be tampered with by employees for personal satisfaction.
Authorisation activities			
'Proper authorisation activities exist at all hierarchical levels' and 'conflict of interest' (-0.244**)	Weak	Negative	Proper authorisation activities existed at all hierarchical levels which resulted in the mitigation of conflict of interest.
'Proper authorisation activities exist at all hierarchical levels' and 'Bribery' (-0.185*)	Very Weak	Negative	Proper authorisation activities existed at all hierarchical levels which resulted in the mitigation of bribery.
'Proper authorisation activities exist at all hierarchical levels' and 'theft of inventory' (-0.250**)	Weak	Negative	Proper authorisation activities existed at all hierarchical levels which resulted in the mitigation of theft of inventory.
'Proper authorisation activities exist at all hierarchical levels' and 'sales are sometimes not recorded' (-0.188*)	Very Weak	Negative	Proper authorisation activities existed at all hierarchical levels which resulted in the mitigation of sales not being recorded and/or captured.
'Proper authorisation activities exist at all hierarchical levels' and 'purchases are sometimes not recorded' (-0.193*)	Very Weak	Negative	Proper authorisation activities existed at all hierarchical levels which resulted in the mitigation of purchases not being recorded and/or captured.
'Proper authorisation activities exist at all hierarchical levels' and 'payments are sometimes not recorded' (-0.281**)	Weak	Negative	Proper authorisation activities existed at all hierarchical levels which resulted in the mitigation of payments not being recorded and/or captured.
'Proper authorisation activities exist at all hierarchical levels' and 'incorrect sales amounts are sometimes recorded' (-0.247**)	Weak	Negative	Proper authorisation activities existed at all hierarchical levels which resulted in the mitigation of incorrect sales amounts to be recorded and/or captured.
'Proper authorisation activities exist at all hierarchical levels' and 'incorrect purchase amounts are sometimes recorded' (-0.251**)	Weak	Negative	Proper authorisation activities existed at all hierarchical levels which resulted in the mitigation of incorrect purchase amounts to be recorded and/or captured.
'Proper authorisation activities exist at all hierarchical levels' and 'incorrect receipts amounts are sometimes recorded' (-0.272**)	Weak	Negative	Proper authorisation activities existed at all hierarchical levels which resulted in the mitigation of incorrect receipts amounts to be recorded and/or captured.
'Proper authorisation activities exist at all hierarchical levels' and 'incorrect payments amounts are sometimes recorded' (-0.319**)	Weak	Negative	Proper authorisation activities existed at all hierarchical levels which resulted in the mitigation of incorrect payments amounts to be recorded and/or captured.
'Proper authorisation activities exist at all hierarchical levels' and 'payroll schemes are not validated' (-0.198*)	Very Weak	Negative	Proper authorisation activities existed at all hierarchical levels which resulted in the mitigation of payroll schemes to be performed.

'Proper authorisation activities exist at all hierarchical levels' and 'late payments are made to creditors' (-0.300**)	Weak	Negative	Proper authorisation activities existed at all hierarchical levels which resulted in the mitigation of late payments being made to creditors.
'Proper authorisation activities exist at all hierarchical levels' and 'credit is sometimes offered to unauthorised customers' (-0.186*)	Very Weak	Negative	Proper authorisation activities existed at all hierarchical levels which resulted in the mitigation of offering credit to unauthorised customers.
'Proper authorisation activities exist at all hierarchical levels' and 'business hours are used by employees to do personal work' (-0.274**)	Weak	Negative	Proper authorisation activities existed at all hierarchical levels which resulted in the mitigation of employees using business hours to perform personal work.
'Proper authorisation activities exist at all hierarchical levels' and 'inventory is sometimes tampered with by employees for their personal benefit' (-0.182*)	Very Weak	Negative	Proper authorisation activities existed at all hierarchical levels which resulted in the mitigation of inventory to be tampered with by employees for personal satisfaction.
'Only management have power of authorisation' and 'conflict of interest' (-0.305**)	Weak	Negative	Members of management had the power of authorisation which resulted in the mitigation of conflict of interest.
'Only management have power of authorisation' and 'bribery' (-0.236**)	Weak	Negative	Members of management had the power of authorisation which resulted in the mitigation of bribery.
'Only management have power of authorisation' and 'theft of inventory' (-0.292**)	Weak	Negative	Members of management had the power of authorisation which resulted in the mitigation of theft of inventory.
'Only management have power of authorisation' and 'sales are sometimes not recorded' (-0.203*)	Weak	Negative	Members of management had the power of authorisation which resulted in the mitigation of sales not being recorded and/or captured.
'Only management have power of authorisation' and 'purchases are sometimes not recorded' (-0.186*)	Very Weak	Negative	Members of management had the power of authorisation which resulted in the mitigation of purchases not being recorded and/or captured.
'Only management have power of authorisation' and 'receipts are sometimes not recorded' (-0.192*)	Very Weak	Negative	Members of management had the power of authorisation which resulted in the mitigation of receipts not being recorded and/or captured.
'Only management have power of authorisation' and 'payments are sometimes not recorded' (-0.299**)	Weak	Negative	Members of management had the power of authorisation which resulted in the mitigation of payments not being recorded and/or captured.
'Only management have power of authorisation' and 'incorrect sales amounts are sometimes recorded' (-0.247**)	Weak	Negative	Members of management had the power of authorisation which resulted in the mitigation of incorrect sales amounts to be recorded and/or captured.

'Only management have power of authorisation' and 'incorrect purchase amounts are sometimes recorded' (-0.293**)	Weak	Negative	Members of management had the power of authorisation which resulted in the mitigation of incorrect purchase amounts to be recorded and/or captured.
'Only management have power of authorisation' and 'incorrect receipts amounts are sometimes recorded' (-0.295**)	Weak	Negative	Members of management had the power of authorisation which resulted in the mitigation of incorrect receipts amounts to be recorded and/or captured.
'Only management have power of authorisation' and 'incorrect payment amounts are sometimes recorded' (-0.330**)	Weak	Negative	Members of management had the power of authorisation which resulted in the mitigation of incorrect payment amounts to be recorded and/or captured.
'Only management have power of authorisation' and 'personal expenses are paid with business funds' (-0.181*)	Very Weak	Negative	Members of management had the power of authorisation which resulted in the mitigation of paying personal expenses with business funds.
'Only management have power of authorisation' and 'late payments are made to creditors' (-0.238**)	Weak	Negative	Members of management had the power of authorisation which resulted in the mitigation of late payments being made to creditors.
'Only management have power of authorisation' and 'business hours are used by employees to do personal work' (-0.397**)	Weak	Negative	Members of management had the power of authorisation which resulted in the mitigation of employees using business hours to perform personal work.
'Only management have power of authorisation' and 'inventory is sometimes tampered with by employees for their personal benefit' (-0.224*)	Weak	Negative	Members of management had the power of authorisation which resulted in the mitigation of inventory to be tampered with by employees for personal satisfaction.
'Employees have power of authorisation with management permission' and 'conflict of interest' (-0.316**)	Weak	Negative	Employees had power of authorisation with management permission which resulted in the mitigation of conflict of interest.
'Employees have power of authorisation with management permission' and 'bribery' (-0.278**)	Weak	Negative	Employees had power of authorisation with management permission which resulted in the mitigation of bribery.
'Employees have power of authorisation with management permission' and 'theft of money' (-0.224*)	Weak	Negative	Employees had power of authorisation with management permission which resulted in the mitigation of theft of money.
'Employees have power of authorisation with management permission' and 'theft of inventory' (-0.188*)	Very Weak	Negative	Employees had power of authorisation with management permission which resulted in the mitigation of theft of inventory.
'Employees have power of authorisation with management permission' and 'sales are sometimes not recorded' (-0.260**)	Weak	Negative	Employees had power of authorisation with management permission which resulted in the mitigation of sales not being recorded and/or captured.

'Employees have power of authorisation with management permission' and 'purchases are sometimes not recorded' (-0.244**)	Weak	Negative	Employees had power of authorisation with management permission which resulted in the mitigation of purchases not being recorded and/or captured.
'Employees have power of authorisation with management permission' and 'receipts are sometimes not recorded' (-0.281**)	Weak	Negative	Employees had power of authorisation with management permission which resulted in the mitigation of receipts not being recorded and/or captured.
'Employees have power of authorisation with management permission' and 'payments are sometimes not recorded' (-0.323**)	Weak	Negative	Employees had power of authorisation with management permission which resulted in the mitigation of payments not being recorded and/or captured.
'Employees have power of authorisation with management permission' and 'incorrect sales amounts are sometimes recorded' (-0.309**)	Weak	Negative	Employees had power of authorisation with management permission which resulted in the mitigation of incorrect sales amounts being recorded and/or captured.
'Employees have power of authorisation with management permission' and 'incorrect purchase amounts are sometimes recorded' (-0.394**)	Weak	Negative	Employees had power of authorisation with management permission which resulted in the mitigation of incorrect purchase amounts being recorded and/or captured.
'Employees have power of authorisation with management permission' and 'incorrect receipts amounts are sometimes recorded' (-0.364**)	Weak	Negative	Employees had power of authorisation with management permission which resulted in the mitigation of incorrect receipts amounts being recorded and/or captured.
'Employees have power of authorisation with management permission' and 'incorrect payments amounts are sometimes recorded' (-0.334**)	Weak	Negative	Employees had power of authorisation with management permission which resulted in the mitigation of incorrect payment amounts being recorded and/or captured.
'Employees have power of authorisation with management permission' and 'payroll schemes are not validated' (-0.206*)	Weak	Negative	Employees had power of authorisation with management permission which resulted in the mitigation of payroll schemes to be performed.
'Employees have power of authorisation with management permission' and 'late payments are made to creditors' (-0.303**)	Weak	Negative	Employees had power of authorisation with management permission which resulted in the mitigation of late payments being made to creditors.
'Employees have power of authorisation with management permission' and 'late receipts are received from debtors' (-0.243**)	Weak	Negative	Employees had power of authorisation with management permission which resulted in the mitigation of late receipts received from debtors.
'Employees have power of authorisation with management permission' and 'payments are made to made-up vendors' (-0.239**)	Weak	Negative	Employees had power of authorisation with management permission which resulted in the mitigation of payments being made to made-up vendors.
'Employees have power of authorisation with management permission' and 'invoices are sometimes paid twice' (-0.181*)	Very Weak	Negative	Employees had power of authorisation with management permission which resulted in the mitigation of paying invoices twice.

'Employees have power of authorisation with management permission' and 'inventory is sometimes tampered with by employees for their personal benefit' (-0.247**)	Weak	Negative	Employees had power of authorisation with management permission which resulted in the mitigation of inventory to be tampered with by employees for personal satisfaction.
Segregation of duties			
'The person that authorises transactions does not record or authorise them' and 'late receipts are received from debtors' (-0.268**)	Weak	Negative	Segregation of duties were evident which resulted in the mitigation of late receipts received from debtors.
'The person that executes transactions does not authorise or record them' and 'bribery' (-0.199*)	Very Weak	Negative	Segregation of duties were evident which resulted in the mitigation of bribery.
'The person that executes transactions does not authorise or record them' and 'incorrect payment amounts are sometimes recorded' (-0.188*)	Very Weak	Negative	Segregation of duties were evident which resulted in the mitigation of incorrect payment amounts being recorded and/or captured.
'The person that executes transactions does not authorise or record them' and 'late receipts are received from debtors' (-0.195*)	Very Weak	Negative	Segregation of duties were evident which resulted in the mitigation of late receipts received from debtors.
'The person that records transactions does not authorise or execute them' and 'bribery' (-0.201*)	Weak	Negative	Segregation of duties were evident which resulted in the mitigation of bribery.
'The person that records transactions does not authorise or execute them' and 'incorrect receipts amounts are sometimes recorded' (-0.194*)	Very Weak	Negative	Segregation of duties were evident which resulted in the mitigation of incorrect receipts amounts being recorded and/or captured.
'The person that records transactions does not authorise or execute them' and 'incorrect payment amounts are sometimes recorded' (-0.228*)	Weak	Negative	Segregation of duties were evident which resulted in the mitigation of incorrect payment amounts being recorded and/or captured.
'The person that records transactions does not authorise or execute them' and 'late payments are made to creditors' (-0.190*)	Very Weak	Negative	Segregation of duties were evident which resulted in the mitigation of late payments being made to creditors.
'The person that records transactions does not authorise or execute them' and 'late receipts are received from debtors' (-0.282**)	Weak	Negative	Segregation of duties were evident which resulted in the mitigation of late receipts received from debtors.

Independent checks			
'There are independent checks performed on business processes' and 'conflict of interest' (-0.222*)	Weak	Negative	Independent checks were performed on business processes which resulted in the mitigation of conflict of interest.
'There are independent checks performed on business processes' and 'theft of inventory' (-0.223*)	Weak	Negative	Independent checks were performed on business processes which resulted in the mitigation of theft of inventory.
'There are independent checks performed on business processes' and 'sales are sometimes not recorded' (-0.187*)	Very Weak	Negative	Independent checks were performed on business processes which resulted in the mitigation of sales not being recorded and/or captured.
'There are independent checks performed on business processes' and 'receipts are sometimes not recorded' (-0.205*)	Weak	Negative	Independent checks were performed on business processes which resulted in the mitigation of receipts not being recorded and/or captured.
'There are independent checks performed on business processes' and 'payments are sometimes not recorded' (-0.230*)	Weak	Negative	Independent checks were performed on business processes which resulted in the mitigation of payments not being recorded and/or captured.
'There are independent checks performed on business processes' and 'incorrect sales amounts are sometimes recorded' (-0.297**)	Weak	Negative	Independent checks were performed on business processes which resulted in the mitigation of incorrect sales amounts being recorded and/or captured.
'There are independent checks performed on business processes' and 'incorrect purchase amounts are sometimes recorded' (-0.318**)	Weak	Negative	Independent checks were performed on business processes which resulted in the mitigation of incorrect purchase amounts being recorded and/or captured.
'There are independent checks performed on business processes' and 'incorrect receipts amounts are sometimes recorded' (-0.285**)	Weak	Negative	Independent checks were performed on business processes which resulted in the mitigation of incorrect receipts amounts being recorded and/or captured.
'There are independent checks performed on business processes' and 'incorrect payment amounts are sometimes recorded' (-0.251**)	Weak	Negative	Independent checks were performed on business processes which resulted in the mitigation of incorrect payment amounts being recorded and/or captured.
'There are independent checks performed on business processes' and 'late payments are made to creditors' (-0.327**)	Weak	Negative	Independent checks were performed on business processes which resulted in the mitigation of late payments being made to creditors.
'There are independent checks performed on business processes' and 'late receipts are received from debtors' (-0.217*)	Weak	Negative	Independent checks were performed on business processes which resulted in the mitigation of late receipts received from debtors.
'Quality checks are performed on goods received' and 'conflict of interest' (-0.227*)	Weak	Negative	Quality checks were performed on good received which resulted in the mitigation of conflict of interest.
'Quality checks are performed on goods received' and 'theft of inventory' (-0.207*)	Weak	Negative	Quality checks were performed on good received which resulted in the mitigation of theft of inventory.

'Quality checks are performed on goods received' and 'sales are sometimes not recorded' (-0.180*)	Very Weak	Negative	Quality checks were performed on good received which resulted in the mitigation of sales not being recorded and/or captured.
'Quality checks are performed on goods received' and 'payments are sometimes not recorded' (-0.189*)	Very Weak	Negative	Quality checks were performed on good received which resulted in the mitigation of payments not being recorded and/or captured.
'Quality checks are performed on goods received' and 'incorrect sales amounts are sometimes recorded' (-0.232*)	Weak	Negative	Quality checks were performed on good received which resulted in the mitigation of incorrect sales amounts being recorded and/or captured.
'Quality checks are performed on goods received' and 'incorrect purchase amounts are sometimes recorded' (-0.198*)	Very Weak	Negative	Quality checks were performed on good received which resulted in the mitigation of incorrect purchase amounts being recorded and/or captured.
'Quality checks are performed on goods received' and 'incorrect receipts amounts are sometimes recorded' (-0.186*)	Very Weak	Negative	Quality checks were performed on good received which resulted in the mitigation of incorrect receipts amounts being recorded and/or captured.
'Quality checks are performed on goods received' and 'incorrect payment amounts are sometimes recorded' (-0.241**)	Weak	Negative	Quality checks were performed on good received which resulted in the mitigation of incorrect payment amounts being recorded and/or captured.
'Quality checks are performed on goods received' and 'late payments are made to creditors' (-0.221*)	Weak	Negative	Quality checks were performed on good received which resulted in the mitigation of late payments being made to creditors.
'Quality checks are performed on goods received' and 'business hours are used by employees to do personal work' (-0.331**)	Weak	Negative	Quality checks were performed on good received which resulted in the mitigation of employees using business hours to perform personal work
'Quality checks are performed on goods received' and 'inventory is sometimes tampered with by employees for their personal benefit' (-0.186*)	Very Weak	Negative	Quality checks were performed on good received which resulted in the mitigation of inventory to be tampered with by employees for personal satisfaction.
'Quality checks are performed on goods before they are sold' and 'conflict of interest' (-0.274**)	Weak	Negative	Quality checks were performed on good before they were sold which resulted in the mitigation of conflict of interest.
'Quality checks are performed on goods before they are sold' and 'theft of inventory' (-0.192*)	Very Weak	Negative	Quality checks were performed on good before they were sold which resulted in the mitigation of theft of inventory.
'Quality checks are performed on goods before they are sold' and 'sales are sometimes not recorded' (-0.225*)	Weak	Negative	Quality checks were performed on good before they were sold which resulted in the mitigation of sales not being recorded and/or captured.

'Quality checks are performed on goods before they are sold' and 'payments are sometimes not recorded' (-0.288**)	Weak	Negative	Quality checks were performed on good before they were sold which resulted in the mitigation of payments not being recorded and/or captured.
'Quality checks are performed on goods before they are sold' and 'incorrect sales amounts are sometimes recorded' (-0.227*)	Weak	Negative	Quality checks were performed on good before they were sold which resulted in the mitigation of incorrect sales amounts being recorded and/or captured.
'Quality checks are performed on goods before they are sold' and 'incorrect purchase amounts are sometimes recorded' (-0.260**)	Weak	Negative	Quality checks were performed on good before they were sold which resulted in the mitigation of incorrect purchase amounts being recorded and/or captured.
'Quality checks are performed on goods before they are sold' and 'incorrect receipts amounts are sometimes recorded' (-0.249**)	Weak	Negative	Quality checks were performed on good before they were sold which resulted in the mitigation of incorrect receipts amounts being recorded and/or captured.
'Quality checks are performed on goods before they are sold' and 'incorrect payments amounts are sometimes recorded' (-0.282**)	Weak	Negative	Quality checks were performed on good before they were sold which resulted in the mitigation of incorrect payments amounts being recorded and/or captured.
'Quality checks are performed on goods before they are sold' and 'late payments are made to creditors' (-0.221*)	Weak	Negative	Quality checks were performed on good before they were sold which resulted in the mitigation of late payments being made to creditors.
'Quality checks are performed on goods before they are sold' and 'late receipts are received from debtors' (-0.181*)	Very Weak	Negative	Quality checks were performed on good before they were sold which resulted in the mitigation of late receipts received from debtors.
'Quality checks are performed on goods before they are sold' and 'business hours are used by employees to do personal work' (-0.343**)	Weak	Negative	Quality checks were performed on good before they were sold which resulted in the mitigation of employees using business hours to perform personal work.
'Quality checks are performed on goods before they are sold' and 'inventory is sometimes tampered with by employees for their personal benefit' (-0.204*)	Weak	Negative	Quality checks were performed on good before they were sold which resulted in the mitigation of inventory to be tampered with by employees for personal satisfaction.
'Periodic cash counts are performed (counting cash in the till)' and 'conflict of interest' (-0.307**)	Weak	Negative	Periodic cash counts were performed which resulted in the mitigation of conflict of interest.
'Periodic cash counts are performed (counting cash in the till)' and 'bribery' (-0.269**)	Weak	Negative	Periodic cash counts were performed which resulted in the mitigation of bribery.
'Periodic cash counts are performed (counting cash in the till)' and 'theft of inventory' (-0.216*)	Weak	Negative	Periodic cash counts were performed which resulted in the mitigation of theft of inventory.

'Periodic cash counts are performed (counting cash in the till)' and 'purchases are sometimes not recorded' (-0.201*)	Weak	Negative	Periodic cash counts were performed which resulted in the mitigation of purchases not being recorded and/or captured.
'Periodic cash counts are performed (counting cash in the till)' and 'receipts are sometimes not recorded' (-0.203*)	Weak	Negative	Periodic cash counts were performed which resulted in the mitigation of receipts not being recorded and/or captured.
'Periodic cash counts are performed (counting cash in the till)' and 'payments are sometimes not recorded' (-0.248**)	Weak	Negative	Periodic cash counts were performed which resulted in the mitigation of payments not being recorded and/or captured.
'Periodic cash counts are performed (counting cash in the till)' and 'incorrect receipts amounts are sometimes recorded' (-0.212*)	Weak	Negative	Periodic cash counts were performed which resulted in the mitigation of incorrect receipts amounts being recorded and/or captured.
'Periodic cash counts are performed (counting cash in the till)' and 'incorrect payments amounts are sometimes recorded' (-0.255**)	Weak	Negative	Periodic cash counts were performed which resulted in the mitigation of incorrect payment amounts being recorded and/or captured.
'Periodic cash counts are performed (counting cash in the till)' and 'payroll schemes are not validated' (-0.202*)	Weak	Negative	Periodic cash counts were performed which resulted in the mitigation of payroll schemes to be performed.
'Periodic cash counts are performed (counting cash in the till)' and 'personal expenses are paid with business funds' (-0.252**)	Weak	Negative	Periodic cash counts were performed which resulted in the mitigation of paying personal expenses with business funds
'Periodic cash counts are performed (counting cash in the till)' and 'Late payments are made to creditors' (-0.262**)	Weak	Negative	Periodic cash counts were performed which resulted in the mitigation of late payments being made to creditors.
'Periodic cash counts are performed (counting cash in the till)' and 'late receipts are received from debtors' (-0.180*)	Very Weak	Negative	Periodic cash counts were performed which resulted in the mitigation of late receipts received from debtors.
'Periodic cash counts are performed (counting cash in the till)' and 'payments are made to made-up vendors' (-0.187*)	Very Weak	Negative	Periodic cash counts were performed which resulted in the mitigation of payments being made to made-up vendors.
'Periodic cash counts are performed (counting cash in the till)' and 'invoices are received from made-up vendors' (-0.204*)	Weak	Negative	Periodic cash counts were performed which resulted in the mitigation of invoices received from made-up vendors.
'Periodic cash counts are performed (counting cash in the till)' and 'credit is sometimes offered to unauthorised customers' (-0.181*)	Very Weak	Negative	Periodic cash counts were performed which resulted in the mitigation of offering credit to unauthorised customers.

'Periodic cash counts are performed (counting cash in the till)' and 'business hours are used by employees to do personal work' (-0.490**)	Moderate	Negative	Periodic cash counts were performed which resulted in the mitigation of employees using business hours to perform personal work.
'Periodic cash counts are performed (counting cash in the till)' and 'inventory is sometimes tampered with by employees for their personal benefit' (-0.216*)	Weak	Negative	Periodic cash counts were performed which resulted in the mitigation of inventory to be tampered with by employees for personal satisfaction.
'Periodic stock/inventory counts are performed' and 'conflict of interest' (-0.255**)	Weak	Negative	Periodic stock/inventory counts were performed which resulted in the mitigation of conflict of interest.
'Periodic stock/inventory counts are performed' and 'Bribery' (-0.188*)	Very Weak	Negative	Periodic stock/inventory counts were performed which resulted in the mitigation of bribery.
'Periodic stock/inventory counts are performed' and 'theft of inventory' (-0.333**)	Weak	Negative	Periodic stock/inventory counts were performed which resulted in the mitigation of theft of inventory.
'Periodic stock/inventory counts are performed' and 'receipts are sometimes not recorded' (-0.190*)	Very Weak	Negative	Periodic stock/inventory counts were performed which resulted in the mitigation of receipts not being recorded and/or captured.
'Periodic stock/inventory counts are performed' and 'payments are sometimes not recorded' (-0.181*)	Very Weak	Negative	Periodic stock/inventory counts were performed which resulted in the mitigation of payments not being recorded and/or captured.
'Periodic stock/inventory counts are performed' and 'incorrect sales amounts are sometimes recorded' (-0.197*)	Very Weak	Negative	Periodic stock/inventory counts were performed which resulted in the mitigation of incorrect sales amounts being recorded and/or performed.
'Periodic stock/inventory counts are performed' and 'incorrect purchase amounts are sometimes recorded' (-0.207*)	Weak	Negative	Periodic stock/inventory counts were performed which resulted in the mitigation of incorrect purchase amounts being recorded and/or performed.
'Periodic stock/inventory counts are performed' and 'late payments are made to creditors' (-0.304**)	Weak	Negative	Periodic stock/inventory counts were performed which resulted in the mitigation of late payments being made to creditors.
'Periodic stock/inventory counts are performed' and 'late receipts are received from debtors' (-0.232*)	Weak	Negative	Periodic stock/inventory counts were performed which resulted in the mitigation of late receipts received from debtors.
'Periodic stock/inventory counts are performed' and 'embezzlement' (-0.187*)	Very Weak	Negative	Periodic stock/inventory counts were performed which resulted in the mitigation of embezzlement.
'Periodic stock/inventory counts are performed' and 'business hours are used by employees to do personal work' (-0.440**)	Moderate	Negative	Periodic stock/inventory counts were performed which resulted in the mitigation of employees using business hours to perform personal work.

'Periodic stock/inventory counts are performed' and 'inventory is sometimes tampered with by employees for their personal benefit' (-0.248**)	Weak	Negative	Periodic stock/inventory counts were performed which resulted in the mitigation of inventory to be tampered with by employees for personal satisfaction.
'Periodic reconciliations (e.g. bank reconciliation, etc.) are performed' and 'conflict of interest' (-0.326**)	Weak	Negative	Periodic reconciliations were performed which resulted in the mitigation of conflict of interest.
'Periodic reconciliations (e.g. bank reconciliation, etc.) are performed' and 'bribery' (-0.199*)	Very Weak	Negative	Periodic reconciliations were performed which resulted in the mitigation of bribery.
'Periodic reconciliations (e.g. bank reconciliation, etc.) are performed' and 'theft of inventory' (-0.219*)	Weak	Negative	Periodic reconciliations were performed which resulted in the mitigation of theft of inventory.
'Periodic reconciliations (e.g. bank reconciliation, etc.) are performed' and 'purchases are sometimes not recorded' (-0.225*)	Weak	Negative	Periodic reconciliations were performed which resulted in the mitigation of purchases not being recorded and/or captured.
'Periodic reconciliations (e.g. bank reconciliation, etc.) are performed' and 'receipts are sometimes not recorded' (-0.184*)	Very Weak	Negative	Periodic reconciliations were performed which resulted in the mitigation of receipts not being recorded and/or captured.
'Periodic reconciliations (e.g. bank reconciliation, etc.) are performed' and 'payments are sometimes not recorded' (-0.278**)	Weak	Negative	Periodic reconciliations were performed which resulted in the mitigation of payments not being recorded and/or captured.
'Periodic reconciliations (e.g. bank reconciliation, etc.) are performed' and 'incorrect sales amounts are sometimes recorded' (-0.241**)	Weak	Negative	Periodic reconciliations were performed which resulted in the mitigation of incorrect sales amounts being recorded and/or captured.
'Periodic reconciliations (e.g. bank reconciliation, etc.) are performed' and 'incorrect purchase amounts are sometimes recorded' (-0.322**)	Weak	Negative	Periodic reconciliations were performed which resulted in the mitigation of incorrect purchase amounts being recorded and/or captured.
'Periodic reconciliations (e.g. bank reconciliation, etc.) are performed' and 'incorrect receipts amounts are sometimes recorded' (-0.291**)	Weak	Negative	Periodic reconciliations were performed which resulted in the mitigation of incorrect receipts amounts being recorded and/or captured.

'Periodic reconciliations (e.g. bank reconciliation, etc.) are performed' and 'incorrect payment amounts are sometimes recorded' (-0.280**)	Weak	Negative	Periodic reconciliations were performed which resulted in the mitigation of incorrect payment amounts being recorded and/or captured.
'Periodic reconciliations (e.g. bank reconciliation, etc.) are performed' and 'late payments are made to creditors' (-0.212*)	Weak	Negative	Periodic reconciliations were performed which resulted in the mitigation of late payments being made to creditors.
'Periodic reconciliations (e.g. bank reconciliation, etc.) are performed' and 'payments are made to made-up vendors' (-0.184*)	Very Weak	Negative	Periodic reconciliations were performed which resulted in the mitigation of payments being made to made-up vendors.
'Periodic reconciliations (e.g. bank reconciliation, etc.) are performed' and 'invoices are sometimes paid twice' (-0.213*)	Weak	Negative	Periodic reconciliations were performed which resulted in the mitigation of invoices being paid twice.
'Periodic reconciliations (e.g. bank reconciliation, etc.) are performed' and 'credit is sometimes offered to unauthorised customers' (-0.196*)	Very Weak	Negative	Periodic reconciliations were performed which resulted in the mitigation of offering credit to unauthorised customers.
'Periodic reconciliations (e.g. bank reconciliation, etc.) are performed' and 'embezzlement' (-0.221*)	Weak	Negative	Periodic reconciliations were performed which resulted in the mitigation of embezzlement.
'Periodic reconciliations (e.g. bank reconciliation, etc.) are performed' and 'business hours are used by employees to do personal work' (-0.384**)	Weak	Negative	Periodic reconciliations were performed which resulted in the mitigation of employees using business hours to perform personal work.
'Periodic reconciliations (e.g. bank reconciliation, etc.) are performed' and 'inventory is sometimes tampered with by employees for their personal benefit' (-0.267**)	Weak	Negative	Periodic reconciliations were performed which resulted in the mitigation of inventory to be tampered with by employees for personal satisfaction.
'Clear guidelines and instructions exist on the personal use of assets' and 'conflict of interest' (-0.214*)	Weak	Negative	Clear guidelines and instructions existed on the personal use of assets which resulted in the mitigation of conflict of interest.
'Clear guidelines and instructions exist on the personal use of assets' and 'bribery' (-0.263**)	Weak	Negative	Clear guidelines and instructions existed on the personal use of assets which resulted in the mitigation of bribery.
'Clear guidelines and instructions exist on the personal use of assets' and 'theft of inventory' (-0.203*)	Weak	Negative	Clear guidelines and instructions existed on the personal use of assets which resulted in the mitigation of theft of inventory.

'Clear guidelines and instructions exist on the personal use of assets' and 'sales are sometimes not recorded' (-0.246**)	Weak	Negative	Clear guidelines and instructions existed on the personal use of assets which resulted in the mitigation of sales not being recorded and/or captured.
'Clear guidelines and instructions exist on the personal use of assets' and 'purchase are sometimes not recorded' (-0.254**)	Weak	Negative	Clear guidelines and instructions existed on the personal use of assets which resulted in the mitigation of purchases not being recorded and/or captured.
'Clear guidelines and instructions exist on the personal use of assets' and 'receipts are sometimes not recorded' (-0.219*)	Weak	Negative	Clear guidelines and instructions existed on the personal use of assets which resulted in the mitigation of receipts not being recorded and/or captured.
'Clear guidelines and instructions exist on the personal use of assets' and 'payments are sometimes not recorded' (-0.313**)	Weak	Negative	Clear guidelines and instructions existed on the personal use of assets which resulted in the mitigation of payments not being recorded and/or captured.
'Clear guidelines and instructions exist on the personal use of assets' and 'incorrect sales amounts are sometimes recorded' (-0.256**)	Weak	Negative	Clear guidelines and instructions existed on the personal use of assets which resulted in the mitigation of incorrect sales amounts being recorded and/or captured.
'Clear guidelines and instructions exist on the personal use of assets' and 'incorrect purchase amounts are sometimes recorded' (-0.315**)	Weak	Negative	Clear guidelines and instructions existed on the personal use of assets which resulted in the mitigation of incorrect purchase amounts being recorded and/or captured.
'Clear guidelines and instructions exist on the personal use of assets' and 'incorrect receipts amounts are sometimes recorded' (-0.317**)	Weak	Negative	Clear guidelines and instructions existed on the personal use of assets which resulted in the mitigation of incorrect receipts amounts being recorded and/or captured.
'Clear guidelines and instructions exist on the personal use of assets' and 'incorrect payment amounts are sometimes recorded' (-0.327**)	Weak	Negative	Clear guidelines and instructions existed on the personal use of assets which resulted in the mitigation of incorrect payment amounts being recorded and/or captured.
'Clear guidelines and instructions exist on the personal use of assets' and 'personal expenses are paid with business funds' (-0.195*)	Very Weak	Negative	Clear guidelines and instructions existed on the personal use of assets which resulted in the mitigation of paying personal expenses with business funds.
'Clear guidelines and instructions exist on the personal use of assets' and 'late payments are made to creditors' (-0.229*)	Weak	Negative	Clear guidelines and instructions existed on the personal use of assets which resulted in the mitigation of late payments being made to creditors.
'Clear guidelines and instructions exist on the personal use of assets' and 'invoices are received from made-up vendors' (-0.180*)	Very Weak	Negative	Clear guidelines and instructions existed on the personal use of assets which resulted in the mitigation of invoices received from made-up vendors.

'Clear guidelines and instructions exist on the personal use of assets' and 'business hours are used by employees to do personal work' (-0.396**)	Weak	Negative	Clear guidelines and instructions existed on the personal use of assets which resulted in the mitigation of employees using business hours to perform personal work.
'Clear guidelines and instructions exist on the personal use of assets' and 'inventory is sometimes tampered with by employees for their personal benefit' (-0.279**)	Weak	Negative	Clear guidelines and instructions existed on the personal use of assets which resulted in the mitigation of inventory to be tampered with by employees for personal satisfaction.
'Training is provided to employees when necessary' and 'conflict of interest' (-0.194*)	Very Weak	Negative	Training was provided to employees which resulted in the mitigation of conflict of interest.
'Training is provided to employees when necessary' and 'bribery' (-0.206*)	Weak	Negative	Training was provided to employees which resulted in the mitigation of bribery.
'Training is provided to employees when necessary' and 'theft of inventory' (-0.184*)	Very Weak	Negative	Training was provided to employees which resulted in the mitigation of theft of inventory.
'Training is provided to employees when necessary' and 'payments are sometimes not recorded' (-0.243**)	Weak	Negative	Training was provided to employees which resulted in the mitigation of payments not being recorded and/or captured.
'Training is provided to employees when necessary' and 'incorrect sales amounts are sometimes recorded' (-0.215*)	Weak	Negative	Training was provided to employees which resulted in the mitigation of incorrect sales amounts being recorded and/or captured.
'Training is provided to employees when necessary' and 'incorrect purchase amounts are sometimes recorded' (-0.235**)	Weak	Negative	Training was provided to employees which resulted in the mitigation of incorrect purchase amounts being recorded and/or captured.
'Training is provided to employees when necessary' and 'incorrect receipts amounts are sometimes recorded' (-0.277**)	Weak	Negative	Training was provided to employees which resulted in the mitigation of incorrect receipts amounts being recorded and/or captured.
'Training is provided to employees when necessary' and 'incorrect payment amounts are sometimes recorded' (-0.299**)	Weak	Negative	Training was provided to employees which resulted in the mitigation of incorrect payment amounts being recorded and/or captured.
'Employees' competence are periodically assessed' and 'incorrect payment amounts are sometimes recorded' (-0.191*)	Very Weak	Negative	The competency of employees were periodically assessed which resulted in the mitigation of incorrect payment amounts being recorded and/or captured.
'Staff are supervised (e.g. by supervisor)' and 'conflict of interest' (-0.200*)	Weak	Negative	Staff were supervised by supervisors which resulted in the mitigation of conflict of interest.
'Staff are supervised (e.g. by supervisor)' and 'bribery' (-0.234**)	Weak	Negative	Staff were supervised by supervisors which resulted in the mitigation of bribery.
'Staff are supervised (e.g. by supervisor)' and 'theft of inventory' (-0.248**)	Weak	Negative	Staff were supervised by supervisors which resulted in the mitigation of theft of inventory.

'Staff are supervised (e.g. by supervisor)' and 'payments are sometimes not recorded' (-0.230*)	Weak	Negative	Staff were supervised by supervisors which resulted in the mitigation of payments not being recorded and/or captured.
'Staff are supervised (e.g. by supervisor)' and 'incorrect purchases amounts are sometimes recorded' (-0.217*)	Weak	Negative	Staff were supervised by supervisors which resulted in the mitigation of incorrect purchases amounts being recorded and/or captured.
'Staff are supervised (e.g. by supervisor)' and 'incorrect receipts amounts are sometimes recorded' (-0.204*)	Weak	Negative	Staff were supervised by supervisors which resulted in the mitigation of incorrect receipts amounts being recorded and/or captured.
'Staff are supervised (e.g. by supervisor)' and 'incorrect payment amounts are sometimes recorded' (-0.196*)	Very Weak	Negative	Staff were supervised by supervisors which resulted in the mitigation of incorrect payment amounts being recorded and/or captured.
'Staff are supervised (e.g. by supervisor)' and 'late payments are made to creditors' (-0.216*)	Weak	Negative	Staff were supervised by supervisors which resulted in the mitigation of late payments being made to creditors.
'Staff are supervised (e.g. by supervisor)' and 'business hours are used by employees to do personal work' (-0.391**)	Weak	Negative	Staff were supervised by supervisors which resulted in the mitigation of employees using business hours to perform personal work.
'Staff are monitored (e.g. for behaviour changes)' and 'theft of inventory' (-0.256**)	Weak	Negative	Staff were monitored which resulted in the mitigation of theft of inventory.
'Staff are monitored (e.g. for behaviour changes)' and 'incorrect sales amounts are sometimes recorded' (-0.247**)	Weak	Negative	Staff were monitored which resulted in the mitigation of incorrect sales amounts being recorded and/or captured.
'Staff are monitored (e.g. for behaviour changes)' and 'incorrect purchase amounts are sometimes recorded' (-0.197*)	Very Weak	Negative	Staff were monitored which resulted in the mitigation of incorrect purchase amounts being recorded and/or captured.
'Staff are monitored (e.g. for behaviour changes)' and 'incorrect receipts amounts are sometimes recorded' (-0.207*)	Weak	Negative	Staff were monitored which resulted in the mitigation of incorrect receipts amounts being recorded and/or captured.
'Staff are monitored (e.g. for behaviour changes)' and 'incorrect payment amounts are sometimes recorded' (-0.236**)	Weak	Negative	Staff were monitored which resulted in the mitigation of incorrect payment amounts being recorded and/or captured.
'Staff are monitored (e.g. for behaviour changes)' and 'late payments are made to creditors' (-0.181*)	Very Weak	Negative	Staff were monitored which resulted in the mitigation of late payments being made to creditors.
'Staff are monitored (e.g. for behaviour changes)' and 'business hours are used by employees to do personal work' (-0.359**)	Weak	Negative	Staff were monitored which resulted in the mitigation of employees using business hours to perform personal work.

'Disciplinary procedures exist (e.g. verbal warnings, written warnings, etc.)' and 'bribery' (-0.181*)	Very Weak	Negative	Disciplinary procedures existed which resulted in the mitigation of bribery.
'Disciplinary procedures exist (e.g. verbal warnings, written warnings, etc.)' and 'theft of inventory' (-0.201*)	Weak	Negative	Disciplinary procedures existed which resulted in the mitigation of theft of inventory.
'Disciplinary procedures exist (e.g. verbal warnings, written warnings, etc.)' and 'business hours are used by employees to do personal work' (-0.372**)	Weak	Negative	Disciplinary procedures existed which resulted in the mitigation of employees using business hours to perform personal work.

Each internal control activity was tested (direction and size) against the occupational fraud risk evident in sampled South African FMCG SMMEs. Based on the results in Table 4.16, the following inferences can be made in connection with the internal control activities in sampled South African FMCG SMMEs:

- **Document usage and design:** The utilisation of source documents assisted sampled South African FMCG SMMEs to combat the following individual occupational fraud risk: 1) conflict of interest, 2) bribery, 3) theft of money, 4) theft of inventory, 5) sales not being recorded sometimes, 6) purchases not being recorded sometimes, 7) receipts not being recorded sometimes, 8) payment not being recorded sometimes, 9) incorrect sales amounts being recorded, 10) incorrect purchases amounts being recorded, 11) incorrect receipts amounts being recorded, 12) incorrect payments amounts being recorded, 13) payroll schemes being validated, 14) expenses paid with business funds, 15) delayed/late payments to creditors, 16) invoices received from made-up vendors, 17) business hours used by employees to perform personal work, 18) credit offered to unauthorised customers, and 19) tampered inventory by employees for personal benefit.
- **Safeguarding of assets:** The utilisation of safeguarding of assets assisted sampled South African FMCG SMMEs to combat the following individual occupational fraud risk: 1) conflict of interest, 2) bribery, 3) incorrect purchases amounts being recorded, 4) incorrect receipts amounts being recorded, 5) incorrect payments amounts being recorded, 6) payments not being recorded sometimes, 7) late payments to creditors, 8) business hours used by employees to perform personal work, 9) theft of stationery, 10) theft of inventory, 11) late receipts received from debtors, and 12) tampered inventory by employees for personal benefit.
- **Authorisation activities:** The utilisation of authorisation activities assisted sampled South African FMCG SMMEs to combat the following individual occupational fraud risk: 1) conflict of interest, 2) bribery, 3) theft of inventory, 4) theft of money, 5) sales sometimes not recorded, 6) purchases sometimes not recorded, 7) payments sometimes not recorded, 8) receipts are sometimes not recorded, 9) incorrect sales amounts being recorded sometimes, 10) incorrect purchases amounts being recorded sometimes, 11) incorrect receipts amounts being recorded sometimes, 12) incorrect payments amounts being recorded sometimes, 13) payroll schemes being validated, 14) late payments to creditors, 15) credit sometimes offered to unauthorised customers, 16) business hours used

by employees to perform personal work, 17) inventory is sometimes tampered with by employees for personal benefit, 18) late receipts received from debtors, 19) payments made to made-up vendors, and 20) invoices sometimes being paid twice.

- **Segregation of duties:** The utilisation of segregation of duties assisted sampled South African FMCG SMMEs to combat the following individual occupational fraud risk: 1) bribery, 2) late receipts received from debtors, 3) late payments made to creditors, 4) incorrect payments amounts being recorded sometimes, and 5) incorrect receipts amounts being recorded sometimes.
- **Independent checks:** The utilisation of independent checks assisted sampled South African FMCG SMMEs to combat the following individual occupational fraud risk: 1) conflict of interest, 2) bribery, 3) theft of inventory, 4) sales not being recorded sometimes, 5) purchases not being recorded sometimes, 6) receipts not being recorded sometimes, 7) payments not being recorded sometimes, 8) incorrect purchases amounts being recorded, 9) incorrect receipts amounts being recorded sometimes, 10) incorrect payments amounts being recorded sometimes, 11) incorrect sales amounts being recorded sometimes, 12) late payments made to creditors, 13) late receipts received from debtors, 14) invoices received from made-up vendors, 15) embezzlement, 16) business hours used by employees to do personal work, 17) inventory is sometimes tampered with by employees for personal benefit, 18) payroll schemes being validated, 19) personal expenses being paid with business funds, 20) payments being made to made-up vendors, 21) credit being offered to unauthorised customers, and 22) invoices sometimes being paid twice.

4.11 CONCLUSION AND RELEVANCE OF THE STUDY

In this chapter, focus was placed on analysing collected primary quantitative data, to provide results and perform relevant discussion in order to address the relevant questions and attain appropriate research objectives. Before any data were analysed, the validity and reliability of the data were first addressed as they form the foundation for the presentation of results. Furthermore, Cronbach's Alpha values were used to determine the reliability of the gleaned data pertaining to Likert scale questions.

Bearing in mind the above, descriptive statistics were first performed on the demographic information of respondents, demographic information of sampled South African FMCG SMMEs and the sustainability of sampled South African FMCG SMMEs. In

addition, relevant results and discussions were shared in relation to economic factors affecting sampled South African FMCG SMMEs, internal control activities utilised in sampled South African FMCG SMMEs, risks influencing sampled South African FMCG SMMEs and occupational fraud risk affecting sampled South African FMCG SMMEs. Stemming from the results, it was found that these business entities had good sustainability (according to respondents' perceptions); however, a handful of economic factors had an adverse influence on these business entities' sustainability which, in turn, made them vulnerable to occupational fraud risk.

In order to properly address the main research objective of this study, inferential statistics were used to perform Spearman rank correlations. By doing so, the relationship between the (customised) implemented internal control activities and perceived occupational fraud risk evident in sampled SMMEs was tested. Stemming from the results, it was found that although sampled South African FMCG SMMEs made use of customised internal control activities, they did assist in combating occupational fraud risk to some extent (as supported by mostly weak negative statistically significant correlations).

In Chapter 5, the identified research problem, relevant research questions, and research objectives are revisited, and specific conclusions and recommendations are made.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

In this research study, a research problem (see Section 1.2) was identified from where a main research question (see Section 1.3.1) and five investigative research questions (see Section 1.3.2) were posed, together with relevant research objectives. The first two investigative research questions and first two secondary research objectives were answered and achieved, respectively, through the conduct of a literature review. Following this, empirical research (survey research) was performed –as developed with the assistance of the literature review (see Chapter 2) – to assist in the answering of the remaining investigative research questions and attainment of the final three secondary research objectives. Stemming from the literature review, the following concepts were conceptualised:

- Sustainability (see Section 2.2).
- Risks (see Section 2.4).
- Occupational fraud risk (see Section 2.4).
- Risk management (see Section 2.5).
- Internal control activities (see Section 2.6).

Through the assistance of the literature review, a survey (see Annexure A) was constructed and used to glean primary quantitative data from owners and/or managers operating in South African FMCG SMMEs, operating in the Cape Metropole. Non-probability sampling was used, particularly a combination of purposive sampling and convenience sampling (see Section 3.5), with the main intent to obtain rich data. Moreover, respondents were subjected to strict delineation criteria.

Relevant data gleaned from respondents were predominantly analysed by means of descriptive statistics and partially through means of inferential statistics. The results pertaining to the statistics were presented and discussed in Chapter 4. In essence, the following headings were used to present and discuss analysed data:

- Demographical information of respondents (see Section 4.4.1).
- Demographical information of SMMEs (see Section 4.4.2).
- South African FMCG SMME sustainability (see Section 4.5).
- Economic factors affecting South African FMCG SMMEs (see Section 4.6).

- Internal control activities utilised in South African FMCG SMMEs (see Section 4.7).
- Risks influencing South African FMCG SMMEs (see Section 4.8).
- Occupational fraud risk affecting South African FMCG SMMEs (see Section 4.9).
- The relationship between internal control activities deployed in sampled South African FMCG SMMEs and their occupational fraud risk (see Section 4.10).

Throughout the remainder of this chapter, conclusions are drawn from the study conducted, and recommendations are provided by revisiting the research problem, the primary research question, the primary research objective, the five investigative research questions and the five secondary research objectives.

5.2 RESEARCH PROBLEM REVISITED

Stemming from the background to this research study (see Section 1.1), the perception was formulated that the majority of South African SMMEs do not make use of adequate and/or effective internal control activities to combat risks, especially occupational fraud risk. As supported by the literature, inadequate and/or ineffective internal control activities may lead to weak business sustainability, creating an environment conducive to risks. The research problem within the ambit of this thesis read:

The sustainability of South African fast-moving consumer goods (FMCG) SMMEs is adversely influenced by the realisation of occupational fraud risk, which, in turn, is believed to stem from the utilisation of internal control activities that are not effective.

In order to address the identified research problem, a single primary research question and one primary research objective were formulated.

5.3 PRIMARY RESEARCH QUESTION AND PRIMARY RESEARCH OBJECTIVE REVISITED

In order to address the identified research problem, the following primary research question was asked (see Section 1.3.1):

How effective are the internal control activities utilised by South African FMCG SMMEs to combat occupational fraud risk?

Taking the primary research question above into consideration, the following primary research objective pertained to this research study:

To determine the effectiveness of internal control activities in South African FMCG SMMEs to combat occupational fraud risk.

Using the above as a basis, in order to address the identified research problem, the researcher had to answer the primary research question to, in turn, achieve the primary research objective. To extensively answer and achieve the primary research question and primary research objective respectively, five investigative research questions, together with five related secondary research objectives, were formulated (see Section 1.3.2).

5.4 INVESTIGATIVE RESEARCH QUESTIONS AND SECONDARY RESEARCH OBJECTIVES REVISITED

For this research study, five investigative research questions were developed, together with five secondary research objectives. Each one of these investigative research questions and their respective secondary research objectives are revisited below:

5.4.1 First investigative research question and its respective secondary research objective revisited

In order to answer the primary research question, the first investigative research question read:

What is occupational fraud risk?

This investigative research question was answered by conducting a literature review (see Chapter 2), with the intent to attain the following secondary research objective:

To conceptualise what occupational fraud risk is.

The investigative research question was answered by conceptualising the relevant term. This was done by referring to the (non-exhaustive) views of various scholars on the term 'occupational fraud risk'; the researcher then formulated a personalised and informed definition of the same term. The term 'occupational fraud risk' was conceptualised as a phenomenon where at least one employee intentionally mismanages the resources of a business entity to benefit himself/herself, abusing his/her respective position and/or authority for self-advancement, self-empowerment and/or self-enrichment. Moreover, stemming from this definition, occupational fraud risk was found to encompass three classes: 1) asset misappropriation, 2) corruption, and 3) financial statement fraud (see Section 2.4).

5.4.2 Second investigative research question and its respective secondary research objective revisited

Stemming from the primary research question, the second investigative research question read:

What are sound internal control activities?

This investigative research question was also answered by conducting a thorough literature review (see Chapter 2), with the intent to attain the following secondary research objective:

To conceptualise what sound internal control activities are.

Similar to the first investigative question, the second investigative research question was answered through means of conceptualisation. Different views of scholars (a non-exhaustive list) were taken into account to clarify the meaning of the concept. Taking the views of these scholars into account, the term 'internal control activities' was conceptualised as those actions based on implemented policies and procedures, by management, to mitigate risk, which may adversely impact the overall sustainability of a business entity, with the main intent to provide reasonable assurance surrounding the attainment of business objectives in the foreseeable future. These actions incorporate a range of preventive and detective activities that pertain to the segregation of duties, proper authorisation activities, independent checks, safeguarding of assets, and adequate document usage and design.

5.4.3 Third investigative research question and its respective secondary research objective revisited

Stemming from the primary research question, the third investigative research question read:

What occupational fraud risk do South African FMCG SMMEs face?

The investigative research question was answered by means of empirical research in the form of survey research. Relevant data collected were analysed accordingly (see Chapter 4) with the intent to attain the following secondary research objective:

To ascertain the occupational fraud risk which South African FMCG SMMEs face.

Before the third investigative research question could be answered, it was important first to assess the sustainability of South African SMMEs, the economic landscape of South African SMMEs, the economic factors which influence their overall sustainability, as well as the risks that adversely influence their overall sustainability. Stemming from

the literature reviewed (see Chapter 2), South African SMMEs are believed to have one of the worst sustainability rates in the world, which, in turn, are predominantly adversely influenced by economic factors (see Section 2.3). Stemming from scholarly literature, it became apparent that these business entities are not adequately and/or effectively managing these economic factors, mainly owing to South African SMMEs operating in a harsh economic landscape. This landscape is believed to be conducive to a type of breeding ground for risks. Generally speaking, these risks can be demarcated into four categories: 1) strategic risks, 2) compliance risks, 3) operational risks, and 4) reporting risks. Among these categories of risks, operational risk was found to be one of the most predominant risks, commonly associated with occupational fraud risk.

In focusing on the results and discussion (see Chapter 4), the sustainability of sampled SMMEs was deemed to be good according to respondents; however, the sustainability of their business entities was found to be adversely influenced by the following economic factors: 1) cost of electricity, 2) cost of petrol, 3) inflation rate, 4) cost of water, 5) crime in general, 6) interest rate, 7) taxation levied on goods and/or services, 8) strict government legislation, 9) changes in supply and demand, and 10) fluctuating market conditions. With the above in mind, the results further show that sampled SMMEs were adversely influenced by risks which include, inter alia, 1) faulty information technology (IT) systems, 2) leadership styles of management and/or supervisors, 3) relationship between management and/or employees, 4) loss of competent employees, 5) internal communication, 6) limited skills of employees, and 7) loss of experienced employees. In addition, the following occupational fraud risk were found to have an adverse influence on the sustainability of sampled SMMEs: 1) corruption, 2) conflict of interest, 3) theft of inventory, and 4) business hours used by employees to do personal work (see Section 4.9).

Thus, from the above, it can be concluded that although the sampled SMMEs experienced good sustainability (perceived by respondents); it was adversely influenced by various economic factors and risks, including occupational fraud risk. A plausible reason for this could be that sampled SMMEs were operating in a harsh economic landscape – making business entities susceptible to various risks (e.g., occupational fraud risk).

5.4.4 Fourth investigative research question and its respective secondary research objective revisited

In order to answer the primary research question, the fourth investigative research question read:

What internal control activities are utilised by South African FMCG SMMEs to combat occupational fraud risk?

The investigative research question was answered by means of empirical research in the form of survey research. Relevant data collected were analysed accordingly (see Chapter 4) with the intent to attain the following secondary research objective:

To determine the internal control activities that are utilised by South African FMCG SMMEs to combat occupational fraud risk.

Before the fourth investigative research question could be answered, the term 'internal control activities' was first conceptualised (see Section 5.4.2). Apart from formally defining this concept, it was also confirmed that internal control activities could be grouped into five different categories: 1) segregation of duties, 2) proper authorisation activities, 3) adequate document usage and design, 4) independent checks, and 5) safeguarding of assets.

When focusing on the results presented in Chapter 4, it is evident that although respondents had a similar understanding of internal control activities as per the conceptualised definition (see Section 4.7), they made use of customised internal control activities to some extent. In essence, sampled South African SMMEs were found to make use of document usage and design, proper authorisation activities, and independent checks as internal control activities only some of the time, while the safeguarding of assets and segregation of duties were used to a lesser extent.

It may be possible that there was a limited need for those internal control activities related to the segregation of duties, since an average of only eight (8) employees were employed by sampled South African SMMEs (see Section 4.4.2); however, the phenomena that internal control activities related to the safeguarding of assets were rarely used, and that internal control activities related to adequate document usage

and design, proper authorisation activities, and independent checks were used only "some of the time", raise concern. Reasons pertaining to the limited usage of these internal control activities are an avenue which should be explored in further research.

5.4.5 Fifth investigative research question and its respective secondary research objective revisited

In order to answer the primary research question, the fifth investigative research question read:

How sound are these internal control activities to combat occupational fraud risk?

The investigative research question was answered by means of empirical research in the form of survey research. Relevant data collected were analysed accordingly (see Chapter 4) with the intent to attain the following secondary research objective:

To determine the soundness of internal control activities, as utilised by South African SMMES, to combat occupational fraud risk.

In order to achieve the fifth investigative research objective, inferential statistics were performed in the form of Spearman rank correlations. Out of the tested 806 correlations, 306 were found to be statistically significant. Out of the statistically significant 306 correlations, 304 were negative (63 were 'very weak', 239 were 'weak' and two were 'moderate') and two were positive (one was 'very weak' and one was 'weak'). Taking into account that 99.35% of all statistically significant correlations were negative, evidence is provided that internal control activities in sampled South African FMCG SMMES assist in combating occupational fraud risk. In the same vein, as these negatively statistically significant correlations comprised 37.72% of all tested relationships, it provides further justification that these business entities made use of customised internal control activities which were not optimally adequate and/or effective in the mitigation of occupational fraud risk (among other risks). Thus, in close, evidence was provided that the internal control activities used in South African FMCG SMMES help combat occupational fraud risk; however, the adequacy and/or effectiveness of these activities leave much to be desired.

5.5 CONCLUSION OF THE RESEARCH STUDY

Despite the fact that SMMEs are essential to the stimulation of economic growth in South Africa through means of job creation and the alleviation of poverty, popular literature suggests that the sustainability of these business entities is among the worst in the world. This view is supported by previous research studies that show that 80% of South African FMCG SMMEs fail within their first three years of existence. In view of this, this weak sustainability rate is exacerbated by both macro-economic and micro-economic factors, which, in turn, are aggravated by an unconducive economic landscape. It is therefore unsurprising that these business entities are susceptible to numerous risks.

According to the literature reviewed, the most predominant risk that South African FMCG SMMEs contend with is that of occupational fraud risk. Furthermore, research studies show that the occurrence of occupational fraud risk in South African SMMEs is mainly due to the execution of inadequate and/or ineffective internal control activities. South African FMCG SMMEs make use of customised internal control activities that are not always adequate and/or effective.

Stemming from the research conducted, it was found that the overall sustainability of South African FMCG SMMEs was perceived to be good since members of management perceived their respective SMMEs to be attaining their relevant business objectives. However, the sampled South African FMCG SMMEs were adversely influenced by various economic factors. In particular, the following economic factors had a negative influence on the attainment of business objectives: 1) cost of electricity, 2) cost of petrol, 3) inflation rate, 4) cost of water, 5) crime in general, 6) interest rate, 7) taxation levied on goods and/or services, 8) strict government legislation, 9) changes in supply and demand, and 10) fluctuating market conditions. Unsurprisingly, since sampled SMMEs were adversely influenced by an array of economic factors, it was also found that these business entities contended with an array of risks which include: faulty information technology (IT) systems, leadership styles of management and/or supervisors, relationship between management and/or employees, loss of competent employees, internal communication, limited skills of employees, and the loss of experienced employees.

Nevertheless, the results also show that sampled SMMEs were influenced by occupational fraud risk that included the theft of inventory/stock, business hours used by employees to do personal work, conflict of interest, and corruption. According to members of management, their respective SMMEs were not adversely influenced by occupational fraud risk to a large extent. As a result, focus was shifted to the internal control activities employed in the sampled South African FMCG SMMEs. Stemming from the results, it became evident that respondents' understanding of internal control activities concurred with formal theoretical definitions; however, they only made use of internal control activities in their respective SMMEs related to adequate document usage and design, proper authorisation activities, and independent checks to some extent; and the safeguarding of assets and segregation of duties to a lesser extent (see Section 4.7). Stemming from the above, the inference was that the views of respondents were possibly subject to respondent bias. For this reason, among others, additional tests were performed, mainly by inferential statistics.

In order to determine the relationship between internal control activities employed in the sampled South African FMCG SMMEs and their perceived occupational fraud risk, Spearman rank correlations were performed. Stemming from the results, it was found that the internal control activities used by sampled South African FMCG SMMEs were customised and had limited adequacy and/or effectiveness in relation combating occupational fraud risk. Regardless of the foregoing, these internal control activities did assist in relation to combating occupational fraud risk to some extent.

In conclusion, the inference is that occupational fraud risk in South African FMCG SMMEs may be aggravated by inadequate and/or ineffective internal control activities evident in these business entities as opposed to being mitigated by these activities. In turn, despite the abilities of internal control activities to combat occupational fraud risk, business entities' sustainability may be adversely affected by the inadequacy and/or effectiveness of internal control activities.

5.6 RECOMMENDATIONS

To address some of the deficiencies expanded upon above and to enhance the prospects of South African FMCG SMME sustainability and the overall adequacy and/or effectiveness of internal control activities to mitigate occupational fraud risk in South African FMCG SMMEs, the following interventions are proposed:

- The national government should conduct fraud awareness training programmes for stakeholders in South African FMCG SMMEs on a continual basis.
- South African FMCG SMME management should design a code of conduct for employees to follow (e.g., conflict of interest, confidentiality, unethical behaviour, corruption, third-party relationships, and professionalism).
- South African FMCG SMME management should ensure that relevant internal controls are implemented, monitored and revised on a continual basis to ensure their adequacy and/or effectiveness (soundness).
- South African FMCG SMME management should conduct fraud risk identification/assessment on a continual basis to evaluate and analyse potential risks.
- South African FMCG SMME management should conduct an independent internal verification of all work activities performed on a continual basis (e.g., reconciliations, reviews, and comparisons).

5.7 AVENUES FOR FURTHER RESEARCH

Throughout this study, new insights were highlighted which could lead to additional research in the foreseeable future. The following, inter alia, could serve as potential avenues for further research:

- The relationship between internal control activities utilised by South African FMCG SMMEs and their sustainability.
- The relationship between occupational fraud risk and the sustainability of South African FMCG SMMEs.
- The relationship between economic factors and the internal control activities of South African FMCG SMMEs.
- The influence of economic factors on the sustainability of South African FMCG SMMEs.
- The effectiveness of implemented internal control activities in combating risks.

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ANNEXURES

ANNEXURE A: RESEARCH SURVEY

RESEARCHER DETAILS	
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RESEARCH TITLE
The effectiveness of control activities to combat occupational fraud risk in fast-moving consumer goods small, medium and micro enterprises (SMMEs) in the Cape Metropole

PROBLEM STATEMENT
It is perceived that South African SMMEs are negatively affected by occupational fraud risk. The main reason responsible for this is the use of ineffective internal control activities.

PRIMARY OBJECTIVE OF THIS RESEARCH STUDY
The primary objective of this research study is to determine how effective internal control activities are in South African SMMEs to mitigate occupational fraud risk.

ETHICAL CONSIDERATIONS
Please note that ALL information provided by any respondent will be kept strictly confidential and that the anonymity of the respondent is guaranteed. The information provided will strictly be used for research purposes only. The participation of respondents is completely voluntary in nature and, as such, the respondent may withdraw from this research study at any time he/she should wish to do so without being discriminated against.

HOW TO COMPLETE THIS SURVEY
This survey comprises mostly closed-ended questions which require the respondent to fill in a numeric digit and/or mark an "x" in the most appropriate box. Clear instructions for each question are given under each section. If at any time the respondent does not understand the question, please feel free to contact the researcher and/or supervisor through the contact information indicated on the front page of this survey.

I confirm that I have given my consent to take part in this research study
Yes [] No []

SECTION A: DEMOGRAPHICAL INFORMATION	
1. Do you have decision-making power within the business? (Tick the most appropriate answer.)	
Yes <input type="checkbox"/> No <input type="checkbox"/>	
2. What is your position in the business? (Tick the most appropriate answer.)	
Owner <input type="checkbox"/> Manager <input type="checkbox"/> Owner and manager <input type="checkbox"/>	
3. How long have you been in this position? (in years)	
_____ years	
4. How long has your business been in existence? (in years)	
_____ years	
5. How many full-time employees do you employ? (number)	
_____ employees	
6. Which of the options below best describe your business? (Tick the most appropriate answer.)	
Convenience store <input type="checkbox"/> Fast-food business <input type="checkbox"/> Restaurant <input type="checkbox"/> Caterer <input type="checkbox"/> Tuck shop <input type="checkbox"/> Pharmacy <input type="checkbox"/> Spaza shop <input type="checkbox"/> Liquor store <input type="checkbox"/> Fruit and Vegetable store <input type="checkbox"/> Convenience store <input type="checkbox"/> Other <input type="checkbox"/>	
If other, please specify: _____	
7. What is your highest level of education? (Tick the most appropriate answer.)	
Lower than Grade 12 <input type="checkbox"/> Grade 12/Senior Certificate/Matric <input type="checkbox"/> National Higher Certificate/Higher Certificate/National Certificate <input type="checkbox"/> Higher Diploma/Diploma/National Diploma <input type="checkbox"/> Bachelor's Degree/Advanced Degree <input type="checkbox"/> Honours degree/Postgraduate diploma <input type="checkbox"/> Master's degree <input type="checkbox"/> Doctoral degree <input type="checkbox"/>	
8. Do you make use of cash sales and/or credit sales? (Tick the most appropriate answer.)	
Cash sales only <input type="checkbox"/> Credit sales only <input type="checkbox"/> Cash sales and credit sales <input type="checkbox"/>	

SECTION B: BUSINESS SUSTAINABILITY	
9. Rate the following statements with regard to your own business situation which start with the base sentence below, by writing a number in the appropriate space (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree).	
Statement: "In this business ..."	RATING
9.1. Income is greater than expenses	
9.2. There is sufficient cash on hand	
9.3. Assets are greater than liabilities	
9.4. Good relationships are maintained with customers	
9.5. Good relationships are maintained with suppliers	
9.6. Good relationships are maintained with competitors	
9.7. Customer loyalty is strived towards	
9.8. Innovation is strived towards	
9.9. Employees are self-motivated	
9.10. Employees are competent	
9.11. Employees are trustworthy	
9.12. Integrity is strived towards	
9.13. We have a green footprint (environmentally friendly)	
9.14. Water is used sparingly	
9.15. Electricity is used sparingly	
9.16. Paper is used sparingly	
10. Based on your answers provided in Question 9, how would you describe the overall achievement of your business's objectives? (Tick the most appropriate answer.)	
Very good <input type="checkbox"/> Good <input type="checkbox"/> Unsure <input type="checkbox"/> Bad <input type="checkbox"/> Very bad <input type="checkbox"/>	

SECTION C: ECONOMIC FACTORS	
11. Rate the following statements with regard to your own business situation which start with the base sentence below, by writing a number in the appropriate space (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree).	
Statement: "The following economic factor has a negative influence on the attainment of my business's objectives ..."	RATING
11.1. Inflation rates	
11.2. Interest rates	
11.3. Rapid technological advancements	
11.4. Strict government legislation	
11.5. Taxation levied on goods and/or services	
11.6. Changes in supply and demand	
11.7. The cost of water	
11.8. The cost of electricity	
11.9. The cost of petrol	
11.10. Fluctuating exchange rates	
11.11. Fluctuating market conditions	
11.12. Lack of business planning	
11.13. Crime (in general)	
11.14. Limited business knowledge (employees / management)	
11.15. Limited internal control awareness (employees / management)	
11.16. Limited business skills (employees / management)	
11.17. Limited internal financial resources	
11.18. Weak business infrastructure	

SECTION D: INTERNAL CONTROL ACTIVITIES
12. Rate the following statements with regard to your own business situation which start with the base sentence below, by writing a number in the appropriate space (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree).

Statement: "In this business, internal control activities are ..."	RATING
12.1. Built on policies, procedures, rules and/or guidelines	
12.2. Put in place by management	
12.3. Helpful to combat risks	
12.4. Helpful to achieve business objectives	
12.5. Evident at all levels within the business entity	
12.6. Preventive in nature (stop risks before they take place)	
12.7. Detective in nature (pick up risks when they take place)	
12.8. Manual in nature	
12.9. Automated in nature	
12.10. Relative to source documents (usage and design)	
12.11. Relative to the segregation of duties	
12.12. Relative to authorisation activities	
12.13. Relative to the safeguarding of assets	
12.14. Relative to independent checks	
13. Rate the following statements with regard to your own business situation which start with the base sentence below, by indicating your level of frequency in the appropriate space (1 = never, 2 = rarely, 3 = some of the time, 4 = most of the time, 5 = all of the time).	
Statement: "In this business ..."	RATING
13.1. Source documents are used when goods are bought	
13.2. Source documents are used when goods are received	
13.3. Source documents are used when goods are sold	
13.4. Source documents are used when payments are made	
13.5. Source documents are used when money is received	
13.6. Copies of all relevant source documents used are kept	
13.7. Passwords are needed to access computers	
13.8. CCTV cameras are used	
13.9. Alarm systems are used	
13.10. Security guards are used	
13.11. There are access controls at entrances	

13.12. Access controls are evident at all doors	
13.13. Access controls are evident at tills and/or safes	
13.14. Proper authorisation activities exist at all hierarchical levels	
13.15. Only management have power of authorisation	
13.16. Employees have power of authorisation with management permission	
13.17. There are independent checks performed on business processes.	
13.18. Quality checks are performed on goods received	
13.19. Quality checks are performed on goods before they are sold	
13.20. Periodic cash counts are performed (counting cash in the till)	
13.21. Periodic stock/inventory counts are performed	
13.22. Periodic reconciliations (e.g. bank reconciliation, etc.) are performed	
13.23. The person that authorises transactions does not record or authorise them	
13.24. The person that executes transactions does not authorise or record them	
13.25. The person that records transactions does not authorise or execute them	
13.26. Clear guidelines and instructions exist on the personal use of assets	
13.27. Training is provided to employees when necessary	
13.28. Employees' competence is periodically assessed	
13.29. Staff are supervised (e.g. by supervisor)	
13.30. Staff are monitored (e.g. for behaviour changes)	
13.31. Disciplinary procedures exist (e.g. verbal warnings, written warnings, etc.)	
14. How would you describe the influence of these internal control activities on the achievement of your business's relevant objectives (see Question 13)? (Tick the most appropriate answer.)	
Very positive [] Positive [] Neutral [] Negative [] Very negative []	

15. How much would you say these internal control activities help to combat the negative influence of economic factors on your business's attainment of objectives (see Question 11)? (Tick the most appropriate answer.)
Very much [] Much [] Average [] Little [] Very little []

SECTION E: GENERAL RISKS	
16. Rate the following statements with regard to your own business situation which start with the base sentence below, by writing a number in the appropriate space (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree).	
Statement: "The following risk negatively influences the attainment of my business's objectives ..."	RATING
16.1. Leadership style of management and/or supervisors	
16.2. Internal communication (e.g. interpersonal relationships, training materials, newsletters and/or policies)	
16.3. Relationship between management and/or employees	
16.4. Limited skills (competence) of employees	
16.5. Social cultural values (e.g. fashion style, computer literacy etc.)	
16.6. Political disruptions such as protests	
16.7. Competition (stemming from competitors)	
16.8. Fluctuating interest rates	
16.9. Unrealistic revenue targets	
16.10. Negative publicity (reputation)	
16.11. Limited open-mindedness of employees to embrace innovation	
16.12. Weak employee morale	
16.13. Faulty information technology (IT) systems	
16.14. Weak employee productivity	
16.15. Frequent changes in customer needs	
16.16. Limited demand for products and/or services	

16.17. Too strict government regulations (e.g. employment, health and safety, etc.)	
16.18. Too strict internal policies and/or procedures	
16.19. Delays in supply chains	
16.20. Loss of experienced employees	
16.21. Loss of skilled (competent) employees	
16.22. Substitute products and/or services	
16.23. Limited creditworthiness of customers	
16.24. Unethical behaviour by employees	
16.25. Unethical behaviour by customers	
17. How severely do these risks influence your business's overall attainment of objectives (see Question 16)? (Tick the most appropriate answer.)	
Very much [] Much [] Average [] Little [] Very little []	

SECTION F: OCCUPATIONAL FRAUD RISK AND THE MANAGEMENT THEREOF	
18. Rate the following statements with regard to your own business situation which start with the base sentence below, by writing a number in the appropriate space (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree).	
Statement: "In my business, the following risks are evident ..."	RATING
18.1. Corruption (e.g. dishonest or unethical behaviour by entrusted personnel etc.)	
18.2. Conflict of interest (e.g. receiving gifts or benefits from a third party in connection with their duties)	
18.3. Bribery (e.g. illegally taking money in exchange for something)	
18.4. Theft of stationery	
18.5. Theft of money	
18.6. Theft of inventory (stock)	
18.7. Sales are sometimes not recorded	
18.8. Purchases are sometimes not recorded	
18.9. Receipts are sometimes not recorded	

18.10. Payments are sometimes not recorded	
18.11. Incorrect sales amounts are sometimes recorded	
18.12. Incorrect purchases amounts are sometimes recorded	
18.13. Incorrect receipts amounts are sometimes recorded	
18.14. Incorrect payments amounts are sometimes recorded	
18.15. Payroll schemes are not validated (e.g. paying employees incorrectly for the hours they work)	
18.16. Personal expenses are paid with business funds	
18.17. Late payments are made to creditors	
18.18. Late receipts are received from debtors	
18.19. Payments are made to made-up vendors	
18.20. Invoices are received from made-up vendors	
18.21. Invoices are sometimes paid twice	
18.22. Payments are sometimes made for items not received	
18.23. Credit is sometimes offered to unauthorised customers	
18.24. Embezzlement (e.g. theft of business funding)	
18.25. Business hours are used by employees to do personal work	
18.26. Inventory is sometimes tampered with by employees for their personal benefit	
19. How severely do occupational fraud risk influence your business's overall attainment of objectives (see Question 18)? (Tick the most appropriate answer.)	
Very much [] Much [] Average [] Little [] Very little []	
20. How would you rate the internal control activities within your business to mitigate occupational fraud risk listed in Question 18? (Tick the most appropriate answer.)	
Very good [] Good [] Neutral [] Bad [] Very bad []	

SECTION G: THANK YOU (VOLUNTARILY)

Thank you for your time and effort in completing this survey for the benefit of academic research in the field of Internal Auditing.

Details below refer to the respondent:

Name:	
Surname:	
E-mail:	
Business name:	

Would you like e-mail feedback of this study?

Yes [] No []

