

MANAGING FRAUD RISK: A STUDY OF THE PRIVATE HOSPITAL SECTOR OF SOUTH AFRICA

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Abstract

Ethical and legal decisions are made daily by healthcare professionals and personnel in the performance of their regular duties. However, fraud risk has become a threat to the sustainability of industries and organisations, including the healthcare sector. In the South African healthcare sector, losses due to fraud risk amounted to R13 billion during 2015 (Bateman, 2015). The purpose of the study on which this article reports, was to assess whether private hospitals managed fraud risk effectively and in a cohesive manner. Failure to manage fraud risk threatens the sustainability of any hospital. Primary data was collected by means of a survey, which involved management staff at head office level and at hospital level. The findings suggested that South African private hospitals appreciate the significance of the management of fraud, but there is room for improvement. It is recommended that private hospitals follow a decentralised business model and decentralising risk ownership in order to manage fraud risk more effectively. Risk management training should be provided to staff members on a regular basis and a King-type regime should be adopted by private hospitals with regard to the management of risks.

Keywords: Fraud Risk, Risk Management, Sustainability, Strategy, Private Hospital Sector, South Africa

1. INTRODUCTION

Globally, the healthcare sector aims to provide better health for all. The healthcare sector generally comprises the services provided by hospitals, general practitioners and community clinics in the prevention, diagnosis and treatment of illnesses. This sector is multifaceted, consisting of preventive, remedial and therapeutic services provided by various institutions (Mosby, 2008). Such treatments are delivered by means of providing products or services, either privately or publicly (Chartered Technofunctional Institute, 2012).

Alongside the various players and sectors providing healthcare, the healthcare sector can furthermore be subdivided into a public and private hospital sector. Private and public hospitals provide similar services but there are significant differences that differentiate them (Simaya and Malandela, 2011).

The private hospital sector of South Africa makes a significant contribution towards the South African economy. This industry creates employment and investment opportunities, provides development opportunities, creates international linkages, and promotes healthcare scalability through continual innovation and improvement in productivity (Econex, 2013; World Health Organization [WHO], 2011). According to the Hospital Association of South Africa (HASA), it has been estimated that the total population covered by the private hospital sector is as high as 10 million individuals, and that the three largest hospital groups jointly hold stock market capitalisation of R91 364 million (HASA, 2013; Life Healthcare Group, 2015; Mediclinic International, 2015; Netcare Limited, 2015).

However, fraud risk has become a problem for industries and organisations across the globe. The risk of fraud moreover has also been found to be a problem in the healthcare sector (Jones and Jing, 2011; Nouss, 2013). The management of fraud risk within South African private hospitals is vital in ensuring their sustainability.

Business models, systems and sustainability concepts are however interconnected with risk management, and play a key role in the effective management of all risk within organisations (Andersen, 2009; Chapman, 2011; Gavare and Johansson, 2010).

The primary objective of the study reported on here was to explore the management of fraud risk within the South African private hospital sector by means of a series of research hypotheses. In doing so, the study tested whether the private hospital sector of South Africa realised the importance of managing fraud risk and whether the sector realised that, in order to manage fraud risk effectively, such risk cannot be dealt with in isolation.

A description of the healthcare industry and private hospital sector of South Africa is provided, followed by a review of the theoretical underpinnings of risk management and fraud risk. The article reports on the findings of the study and makes recommendations to practitioners and scholars.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The literature review is structured into several areas related to the management of fraud risk within the private hospital sector of South Africa. This includes an overview of the healthcare sector, the private hospital sector of South Africa, organisational

strategy, business models, sustainability, risk management, the risk management process and fraud risk.

2.1. Overview of the healthcare sector

The healthcare sector can be defined as an economic sector concerned with the provision, distribution and consumption of healthcare services and related products (Mosby, 2008; National Institutes of Health [NIH], 1999). The healthcare sector generally comprises the services provided by hospitals, general practitioners and community clinics in the prevention, diagnosis and treatment of illnesses. This sector is multifaceted, consisting of preventive, remedial and therapeutic services provided by various institutions (Mosby, 2008). Such treatments are delivered by means of providing products or services, which are provided either privately or publicly (Chartered Technofunctional Institute, 2012).

Although there exist various descriptions of healthcare depending on the different cultural, political, organisational and disciplinary perspectives, there appears to be some consensus that the healthcare sector can be divided into primary care, secondary care and tertiary care (Johns Hopkins Medicine, 2011; WHO, 2011).

'Primary care' refers to health services that play a role in the local community. It refers to the work of healthcare professionals who act as a first point of consultation for all patients within the healthcare system. 'Secondary care' refers to healthcare services provided by medical specialists and other healthcare professionals who generally do not have first contact with patients. This includes the services of cardiologists, urologists and dermatologists. 'Tertiary care' or specialised consultative healthcare is made available to inpatients and, on referral from a primary or secondary healthcare professional, in a facility that has personnel and the required resources that enable advanced medical investigation and treatment (Johns Hopkins Medicine, 2011; WHO, 2011).

Alongside the various players and sectors comprising healthcare, healthcare can furthermore be subdivided into a public and private hospital sector. A private hospital is one which is owned and governed by a private body, and is in general more expensive than public hospitals. Public hospitals, on the other hand, are operated entirely on government funding. Government is responsible for the functioning of these hospitals, from the construction of the building to the fees of the doctors, the cost of equipment and the supply of medicines (Simaya and Malandela, 2011).

2.2. The hospital sector of South Africa

Within South Africa, the hospital system consists of a large public sector and a smaller, but fast-growing private sector. Healthcare varies from the most basic primary healthcare, offered by government and funded from its tax revenue, to highly specialised healthcare services available in the private sector.

The patients of the private hospital sector generally tend to be members of medical schemes and foreign patients who require quality surgical procedures. Research revealed that, within South

Africa, the majority of healthcare professionals are employed in the private hospital sector (Brand South Africa, 2012). For the purpose of this study, attention was centred on the private hospital sector of South Africa.

At the time of the research (i.e. 2015), members of the Hospital Association of South Africa (HASA) represented a total of 155 private hospitals representing 25 022 beds. At the time, this embodied more than 85% of the private hospital sector in South Africa. The private hospital sector of South Africa is further made up of three hospital groups, namely Life Healthcare, Netcare and Mediclinic, which are all listed on the Johannesburg Stock Exchange (JSE) and in 2015 had a combined market capitalisation of around R91 364 million (Life Healthcare Group, 2015; Mediclinic International, 2015; Netcare Limited, 2015). All three groups have a number of hospitals in other countries too, but for the purposes of this study, the focus was on the hospitals within the borders of South Africa only (Ashton, 2011; Econex, 2013; Life Healthcare Group, 2015; Mediclinic International, 2015; Netcare Limited, 2015). Table 1 below presents the private hospital landscape of South Africa.

Table 1. The South African private hospital landscape

Hospital group	Number of hospitals	Number of hospital beds
Life Healthcare Group	48	7 713
Mediclinic International	52	7 885
Netcare Limited	55	9 424
Total	155	25 022

Source: Life Healthcare Group, 2015; Mediclinic International, 2015; Netcare Limited, 2015

The overview of the healthcare industry and the hospital sector of South Africa serve as the introduction to the next section, which presents the concepts of strategy, business models and sustainability. These concepts are explained and discussed in order to gain the necessary understanding of risk management and the way risk management fits into the organisation's strategic processes. This then contributes towards understanding the importance of managing fraud risk within the private hospital sector of South Africa.

2.3. Strategy, Business models and Sustainability

2.3.1. Strategy

In view of the opportunities and threats facing any organisation, as well as having to manage the organisation's own strengths and weaknesses, top management is required to deploy a strategy (Louw and Venter, 2010). As a result, top management is required to have a clear vision for the organisation, and needs to formulate a mission statement that would provide a clear indication of the reason(s) for the existence of the organisation and its sphere of influence that are inspiring for all its employees (Hitt et al., 2009).

Graeme (2010) states that robust systems are a prerequisite to effective execution of strategy. These systems are operations, information, decision-

making and reward systems. Research has found that successful organisations strive for close alignment of systems to achieve consistency, operational efficiency and commonality of purpose (Graeme, 2010).

An organisation's overall strategy and strategic choices significantly influence its risk. In addition, researchers will need to understand how the overall process of risk management interacts with organisational attributes and the other facets of a strategy to influence organisational performance (Andersen, 2009).

2.3.2. Business models

Business models are often seen as an intermediary between an organisation's strategy and its business processes (Di Valentin et al., 2012; Morris et al., 2005). Thus, while strategy focuses on how to prevail over competitors, the business model depicts the logic of value creation and the effective coordination and decision-making of business resources (Kijl and Boersma, 2010; Osterwalder et al., 2005).

The concept of business models is often used in management as a method to help analyse and understand an organisation's current business logic. Used this way, the concept also supports the planning of strategic decision-making (Kijl and Boersma 2010; Osterwalder et al., 2005).

Typically, organisations can implement either a centralised or a decentralised business model (Campbell et al., 2011). A centralised business model is one in which the decision-making power resides at higher levels, such as among senior managers at head office. Once they have made their decisions, these are communicated down through the organisation to be enacted at lower levels (Campbell et al., 2011). A decentralised business model, on the other hand is the delegation of decision-making authority to smaller local units at lower levels of the organisation (Campbell et al., 2011; Matheson, 2013). In addition to the business model organisations choose to employ, organisations tend to follow either proactive or reactive strategies with regard to risk management (Chapman, 2011).

Proactive strategies involve planning and executing activities based on anticipating future events (Yilmaz and Flouris, 2010). Reactive strategies, on the other hand, refer to activities where organisations respond to unplanned events when they occur rather than having the necessary control measures in place in cases where unforeseen events do occur (Bell et al., 2004).

2.3.3. Sustainability

Sustainability can be described by employing the concept of the triple bottom line (Anderson, 2006). The expression 'triple bottom line' was developed by environmentalist and economist John Elkington in 1997, and it has fast become commonplace internationally to describe a way of corporate reporting that encompasses environmental and social as well as economic concerns (Carter and Rogers, 2008).

The term 'corporate sustainability' has gained considerable interest among risk managers and has also been examined in the academic literature

(Bebbington and Tan, 1996; Dyllick and Hockerts, 2002; Ehrenfeld and Hoffman, 2013).

From a risk management perspective, sustainability relates to the management of risks in a manner that ensures longevity, growth and investor confidence for the organisation (Elahi, 2010). Yilmaz and Flouris (2010) highlight that modern businesses need to integrate sustainability and risk management fully into their strategy, not only to minimise potential losses but also to exploit new business opportunities arising from the sustainability agenda. Gavare and Johansson (2010) highlight that, in order for organisations to survive in the long term in a volatile and uncertain environment, in other words attaining organisational sustainability, they ought to manage all risks in a comprehensive, systematic and responsible manner.

2.4. Risk Management

2.4.1. Risk management defined

The International Organization for Standardization (ISO) defines risk management as the architecture for managing risks effectively (ISO, 2009). Bernstein (1996) views risk management as a process that guides an organisation over a vast range of decision-making initiatives. In Bernstein's view, the capacity to manage risk comprises the key elements of the energy that drives the economic system forward. As Chapman (2011) states, risk management involves controlling risk as far as possible, thereby enabling the organisation to maximise opportunities.

Risk management should be a continuous and ever-developing process, which forms an integral part of the organisation's strategy. Risk management should further be applied to all levels of the organisation, in both the strategic and operational contexts as well as recognised risk areas (ISO, 2009).

Risk management is considered an inseparable aspect of managing change and other forms of decision-making (Purdy, 2011). Accordingly, risk management should be integrated into the culture of the organisation, providing support to accountability, performance measurement and reward; hence, promoting operational efficiency at all levels within an organisation (Institute of Risk Management, 2002; Purdy, 2010).

2.4.2. The importance of risk management

Chapman (2011) states that by implementing risk management procedures successfully, an organisation is likely to experience the longevity of its business operations. Risk management enables the organisation to identify arising opportunities and to cope with hazardous threats (Fraser and Simkins, 2010; Teller and Kock, 2013).

According to HM Treasury (2004), the purpose of managing risk is to change uncertainty into benefits for the organisation by constraining threats and taking advantage of opportunities. Ferguson and Ferguson (2011) are of the opinion that successful risk management is critical to top-level decision-makers in any organisation, involving a fundamental strategic policy and planning to identify and allocate scarce resources to projects or activities that generate a sustainable competitive advantage and maximise available long-term growth opportunities.

The claims for the benefits of risk management are numerous (Elahi, 2010). In financial services organisations, risk management has enabled a new focus on the quality of assets and earnings. In the corporate sector, more generally, risk management is perceived as integral to business strategy and to value creation. Weber et al. (2010) state that improving risk management within organisations would be of value for both science and the industry in which the organisation operates. Chapman (2011) confirms that for risk management to be executed successfully, every employee within the organisation is required to partake in the process.

Elahi (2010) further argues that if organisations have strong capabilities in managing risks, they should be able to grow fast in uncertain business environments. If risk management capabilities justify taking the extra risk, seeking riskier businesses could be a great differentiator, provided the organisation has the capability of managing risk properly (Rejda, 2011).

Risk management is essential for value creation and sustainability, whereas the lack thereof could have detrimental effects to organisational goals in terms of achieving sustainable business operations (Elahi, 2010). Hence, taking and managing risk are critical for business survival, not only ensuring sustainability but also promoting future growth for the organisation.

The private hospital sector of South Africa should therefore appreciate the importance of risk management and the numerous benefits it holds, making a definite contribution towards maintaining sustainable business operations. This serves as an introduction towards the next section, which will discuss fraud risk and the importance of managing such risk within the private hospital sector of South Africa.

2.5. Fraud Risk

2.5.1. Fraud risk defined

Fraud is defined as an intentional act by one or more individuals, management, employees or third parties, which results in the misrepresentation of financial statements or existing material facts, which may, in addition, result in further damage or injury to other stakeholders (American Institute of Certified Public Accountants [AICPA], 2002; Malaysian Institute of Accountants, 2001; Norman et al., 2009). Fraud occurs when pressure, opportunity and rationalisation of resources come together. When internal control is absent or avoided, the opportunity to commit fraud arises (Bloomfield, 1997).

The term 'fraud risk' refers to the use of deception with the intention of obtaining an advantage, avoiding an obligation or causing loss to another party (ASOSAI, 2009; HM Treasury, 2008). Fraud comprises acts such as deception, bribery, forgery, extortion, corruption, theft, conspiracy, embezzlement, misappropriation, false representation, concealment of material facts and collusion (Samociuk and Iyer, 2010).

The healthcare sector is also confronted with fraud, which specifically includes:

- misrepresentation of the type or level of service provided;

- misrepresentation of the individual rendering the service;
- billing for items and services that have not been documented;
- billing for items and services that were not medically necessary; and
- seeking increased payment or reimbursement for services that were correctly billed at a lower rate (Jones and Jing, 2011).

Young (2014) defines fraud risk as risk resulting from illegal actions of employees or customers of an organisation, additional parties to a transaction or outside intruders, which have a detrimental effect on the organisation. Risk, in the context of managing fraud risk, is consequently the vulnerability or exposure of an organisation towards fraud and irregularity (HM Treasury, 2008).

2.5.2. The importance of managing fraud risk

Graham and Bedard (2003) state that the management of fraud risk ought to be researched. The Association for Certified Fraud Examiners (ACFE) reports that 5% of business revenue across the globe, totalling approximately US\$3.5 trillion, is stolen through fraud every year (Nouss, 2013). Through fraudulent accounting practices, WorldCom was able to conceal \$3.5 billion in losses from its directors (Thompson, 2003). Research conducted by the ACFE between 2002 and 2008 across a wide range of industries has repeatedly indicated the following:

- fraud is a widespread problem that affects practically every organisation; and
- the typical organisation loses between 5 and 7% of its annual revenue to fraud (Samociuk and Iyer, 2010).

Musau and Vian (2008) report that healthcare fraud in the United States of America (USA) has been estimated to amount to US\$60 million per year of which the majority was found to be in the hospital sector. Moreover, Jones and Jing (2011) reported on research conducted by the Centre for Counter Fraud Studies at the University of Portsmouth in the United Kingdom (UK) that at the time of their research, 7.29% of the annual global healthcare expenditure or an estimated US\$415 billion was reported lost due to fraud.

In South Africa, Qhubeka Forensic Services, a fraud investigation organisation, researched and found that, at the time of their research, fraud in the South African healthcare sector amounted to ZAR13 billion per year (Bateman, 2015). Fraud risk has definitely become an area of concern in the healthcare sector as this particular risk causes organisations and countries to suffer substantial losses.

Based on the literature review on the healthcare sector, the hospital sector of South Africa, strategy, business models, sustainability, risk management and fraud risk, the first three hypotheses were formulated:

H₁: There is a significant difference between the business model followed by private hospitals and whether private hospitals follow a proactive approach towards the management of fraud risk.

H₂: There is a significant difference between the business model followed by private hospitals

and whether the monitoring and review of fraud risk occur throughout the entire organisation.

H₃: There is a significant difference between whether fraud risk forms part of the risks that are managed and whether there exists a culture in which the management of fraud risk is the responsibility of every employee.

2.6. The risk management process

Purdy (2010) defines the risk management process as the systematic application of management policies, procedures and practices to the tasks of establishing the context, identifying, analysing, assessing, treating, monitoring and communicating. Risk management is an iterative process that, with each cycle, can contribute progressively to organisational improvement by providing management with greater insight into risks and the effect of such risks (Purdy, 2010; Tummala and Burchett, 1999).

Several risk management processes exist today that differ to some extent from each other. However, the important focus of all risk management processes is identifying, assessing and mitigating risk (Olsson, 2007). The process of risk management assists decision-makers in making informed choices, identifying priorities and selecting the most appropriate action (ISO, 2009).

Chapman (2011), however, emphasises the fact that in order for risk management processes to be implemented successfully within organisations, every employee should be aware of the importance thereof and all should contribute towards its execution. Kerzner (2001) reiterates that risk management and monitoring are not problem-solving techniques, but should be seen as proactive techniques for obtaining objective information to prevent the occurrence of adverse events or to minimise their adverse effect.

Regardless of the type of risk management process implemented by organisations, the application of risk management has a positive effect in finding and taking action to avoid events that could cause negative consequences for the organisation (Olsson, 2007). Hence, the fourth and fifth hypotheses were formulated:

H₄: There is a significant difference between the extent to which a formal risk management process is in place within private hospitals and the level of agreement on the importance of risk management in contributing towards sustainable business operations.

H₅: There is a significant difference between the extent to which a formal risk management process is in place within private hospitals and the level of agreement on whether all staff has a responsibility towards the effective management of fraud risk.

The next section discusses the methodology followed to test the research hypotheses formulated for the study in order to explore the management of fraud risk within the South African private hospital industry.

3. RESEARCH METHODOLOGY

3.1. Research design

The research for this study was of an empirical nature within the philosophical paradigm of positivism (Alvesson and Kärreman, 2011). Empirical positivism is research that is conducted by collecting evidence to add to the field of study by means of observation that can be analysed statistically (Remenyi et al., 1998).

For this study, a non-experimental, descriptive research design was followed to identify the factors and relationships and to create a detailed description of the phenomenon (Kalaian, 2008). A qualitative research design was considered to be inappropriate, and therefore a quantitative research design was utilised (Kaplan, 2004).

3.2. Population of the study

The private hospital sector of South Africa is dominated by three major hospital groups, namely Life Healthcare Group, Mediclinic International and Netcare Limited. The population of the study consequently included private hospitals belonging to these three hospital groups.

A non-probability sampling method in the form of purposive sampling was chosen. The participants to be included in the sample had to satisfy the following requirements:

- they were required to have a holistic view of their organisation;
- they had to be familiar with risk management; and
- they had to play a key role in the risk management process of their particular organisation.

For this reason, the participants included in the study comprised management staff at head office level as well as management staff at hospital level. This included risk managers, risk analysts, hospital managers as well as line managers involved in management responsibilities at the private hospitals.

Hospitals were selected based on the number of hospital beds per hospital. Hospitals with fewer than 100 beds were excluded from the sample. This exclusion was made because small hospitals (with fewer than 100 beds) often lack well-developed risk management practices and procedures and consequently would not have been able to provide meaningful results.⁹ To this end, a total of 40 private hospitals were included in the sample.

3.3. Data gathering method used for this study

A closed-structured questionnaire was selected as the research instrument of choice for this study. The questionnaire was developed from the literature study and with the assistance of senior employees of the companies. As such, specific questions were formulated relating to the literature study on strategy, business models, sustainability, risk

⁹ This information was obtained during telephonic conversations with hospital managers of the participatory private hospitals included in the sample.

management, fraud risk and the risk management process (See Table 2).

Table 2. Questions to private hospital participants

Topic	Rationale
Risk management and sustainability	- To ascertain whether risk management is essential in contributing towards sustainable business operations. - To ascertain whether the management of all risks is important in order for organisations to be sustainable.
Organisational information	- To identify the private hospital's business model.
The reporting of fraud risk within private hospitals	- To ascertain whether the reporting of fraud risk occurs.
The risk management process in private hospitals	- To obtain information relating to which extent a formal risk management process is in place. - To ascertain whether fraud risk forms part of the risks that are managed.
Risk management responsibilities in private hospitals	- To establish the extent of risk management responsibilities with regard to the management of fraud risk.

Source: Author's own compilation

With this study, focusing on non-experimental quantitative research, it was possible to measure the variables across a scale. A 5-point Likert-type scale was the measuring instrument employed in this study. Respondents were requested to rate the extent to which they agreed with each of the statements in the questionnaire ranging from "strongly agree" to "strongly disagree". Based on the information gathered in the questionnaire the inferential statistical analysis could be conducted.

3.4. Analysis of the data

Inferential statistical measures with the aid of the SPSS statistical package were utilised for the purpose of this study. The nonparametric test by means of the Mann-Whitney test was chosen as the measurement instrument of choice. This was done to determine whether there existed a statistical significance in the manner the respondents answered the different questions of the questionnaire. This study further made use of the p-value indicator to determine whether or not the hypotheses could be accepted. Due to the small sample size ($n = 40$), a significant level of 10% was selected as a 5% level of significance would not have provided meaningful results for the purpose of this research (Zikmund et al., 2013).

4. RESULTS

The next section discusses the results of the research.

H_1 : Significance in the business model followed by the private hospitals and whether private hospitals follow a proactive approach towards the management of fraud risk.

The Mann-Whitney test results are provided in Table 3 below.

The results presented in Table 3 indicate that a statistically significant difference existed in the private hospitals that followed a centralised business model as opposed to a decentralised

business model with regard to the level of agreement on the implementation of a proactive approach towards the management of fraud risk. The null hypothesis is therefore rejected.

Table 3. Mann-Whitney test results

	A14
Mann-Whitney U	4.000
Exact sig. [2*(1-tailed sig.)]	.010

Source: Grebe (2015)

Table 4. Mean ranks

Ranks				
	B 1.3	N	Mean rank	Sum of ranks
A14	1	13	7.69	100.00
	2	3	12.00	36.00
	Total	16		

Source: Grebe (2015)

The mean ranks from Table 4 indicate that participating private hospitals with a decentralised business model tended to agree more (mean rank = 12.00) than those that had a centralised business model (mean rank = 7.69). It can therefore be concluded that private hospitals, which implemented a decentralised business model as opposed to a centralised business model, were more likely to follow a proactive approach in the management of fraud risk.

H_2 : Significance in the business model followed by the private hospitals and whether the monitoring and review of fraud risk occur throughout the organisation.

The Mann-Whitney test results are provided in Table 5 below:

Table 5: Mann-Whitney test results

	A15
Mann-Whitney U	5.500
Exact sig. [2*(1-tailed sig.)]	.015

Source: Grebe (2015)

The results presented in Table 5 indicate that a statistically significant difference existed in private hospitals that implemented a centralised business model as opposed to a decentralised business model with regard to whether the monitoring and review of fraud risk occur throughout the entire organisation. The null hypothesis is therefore rejected.

Table 6. Mean ranks

Ranks				
	B 1.3	N	Mean rank	Sum of ranks
A15	1	13	7.42	96.50
	2	4	14.13	56.50
	Total	17		

Source: Grebe (2015)

The mean ranks from Table 6 indicate that participating private hospitals with a decentralised business model tended to agree more (mean rank = 14.13) than the private hospitals that had a centralised business model (mean rank = 7.42). It can therefore be concluded that private hospitals that implemented a decentralised business model as opposed to a centralised business model were more

likely to ensure that the monitoring and review of fraud risk occur throughout the entire organisation.

H₃: Significance in whether fraud risk forms part of the risks that are managed and whether there exists a culture in which the management of fraud risk is the responsibility of every employee.

The Mann-Whitney test results are provided in Table 7 below:

Table 7. Mann-Whitney test results

	A12
Mann-Whitney U	15.000
Exact Sig. [2*(1-tailed sig.)]	.040

Source: Grebe (2015)

The results presented in Table 7 indicate that a statistically significant difference existed between private hospitals that specified that fraud risk formed part of all the risks that were managed and private hospitals that specified that it was not the case with regard to the existence of a culture where the management of fraud risk is a joined responsibility shared by every employee of the organisation. The null hypothesis is therefore rejected.

Table 8. Mean ranks

Ranks				
	B 3.2	N	Mean rank	Sum of ranks
A12	1	16	12.56	201.00
	2	5	6.00	30.00
	Total	21		

Source: Grebe (2015)

The mean ranks from Table 8 indicate that private hospitals that specified that fraud risk formed part of the risks that were managed within the risk management process of the organisation tended to agree more (mean rank = 12.56) than the private hospitals that specified that this was not the case (mean rank = 6.00). It can therefore be concluded that private hospitals which included the management of fraud risk within their risk management process were more likely to have a well-established culture where the management of fraud risk is the responsibility of every employee.

H₄: Significance in the extent to which a formal risk management process is in place within private hospitals and the level of agreement on the importance of risk management in contributing towards sustainable business operations.

The Mann-Whitney test results are provided in Table 9 below:

Table 9. Mann-Whitney test results

	A2
Mann-Whitney U	21.000
Exact Sig. [2*(1-tailed sig.)]	.091

Source: Grebe (2015)

The results presented in Table 9 indicate that a statistically significant difference existed between private hospitals that specified that a formal risk management process was partially in place and private hospitals that specified that such a process was fully in place with regard to the importance of the management of all risks in order for

organisations to be sustainable. The null hypothesis is therefore rejected.

Table 10. Mean ranks

Ranks				
	B 3.1	N	Mean rank	Sum of ranks
A2	2	16	7.00	42.00
	3	4	12.00	168.00
	Total	21		

Source: Grebe (2015)

The mean ranks in Table 10 specify that private hospitals that indicated that a formal risk management process was fully in place tended to agree more (mean rank = 12.00) than private hospitals that indicated that such a process was only partially in place (mean rank = 7.00). It can therefore be concluded that private hospitals that have risk management processes that are fully in place, comprehend and support the fact that proper risk management procedures contribute towards sustainable business operations. Private hospitals with well-established risk management processes therefore acknowledge and accept the importance of sound risk management in order to enjoy sustainable business operations.

H₅: Significance in the extent to which a formal risk management process is in place within private hospitals and the level of agreement on whether all staff has a responsibility towards the effective management of fraud risk.

The Mann-Whitney test results are provided in Table 11 below:

Table 11. Mann-Whitney test results

	A9
Mann-Whitney U	16.000
Exact Sig. [2*(1-tailed sig.)]	.0046

Source: Grebe (2015)

The results presented in Table 11 indicate that a statistically significant difference existed between private hospitals that specified that a formal risk management process was partially in place at the hospitals and private hospitals which indicated that such a process was fully in place with regard to the fact that all staff has a responsibility towards the effective management of fraud risk. The null hypothesis is therefore rejected.

Table 12. Mean ranks

Ranks				
	B 3.1	N	Mean rank	Sum of ranks
A9	1	6	6.17	37.00
	2	13	11.77	153.00
	Total	22		

Source: Grebe (2015)

The mean ranks from Table 12 specify that private hospitals that pointed out that a formal risk management process was fully in place tended to agree more (mean rank = 11.77) than private hospitals that pointed out that such a process was only partially in place within their respective hospitals (mean rank = 6.17).

Private hospitals that have a risk management process which is fully in place tended to agree more with the fact that all staff has a responsibility in the effective management of fraud risk. These private hospitals comprehended the importance of sound risk management practices where every employee contributes towards the effectiveness of the process.

It can therefore be concluded that private hospitals with well-established risk management processes acknowledged the important role staff (from all departments) play in order to exercise effective risk management. Sound risk management practices ultimately lead to sustainable business operations.

5. CONCLUSION

Fraud risk has been confirmed in literature to be a problem in the healthcare sector. The management of fraud risk within South African private hospitals is therefore essential and requires urgent attention.

The primary objective of the present study was to explore the management of fraud risk in the South African private hospital sector. The research tested whether the private hospital sector of South Africa comprehended that, in order to manage the risk of fraud effectively, fraud risk cannot be dealt with in isolation but rather that it should be managed by adopting an enterprise-wide risk management approach. The analysis led to an enhanced understanding of the private hospital sector's appreciation and perception of the management of fraud risk. The following empirical results were obtained.

Private hospitals with decentralised business models, as opposed to centralised business models, were more likely to follow a proactive approach in the management of fraud risk. A decentralised business model as opposed to a centralised business model was also more likely to ensure that the monitoring and review of fraud risk occur throughout the entire organisation. The results further revealed that a well-established risk management culture existed in those private hospitals that included fraud risk within the scope of risks to be managed within their particular organisations. Private hospitals with well-established risk management processes acknowledged the fact that risk management processes are essential in order to ensure sustainable business operations within the organisation. The management of fraud risk is not the sole responsibility of the risk manager and senior employees. Staff members operating at different levels within the organisation have a role to play in the effective management of fraud risk. Sound risk management practices, which include the management of fraud risk, contribute towards achieving sustainable business operations within the private hospital sector of South Africa.

However, there are deficiencies within private hospitals and, as a result, the following recommendations are made. Firstly, a formalised fraud risk management process ought to be developed and adopted by private hospitals in order to ensure a consistent, effective risk reporting process. Secondly, employees at all levels within the organisation should receive regular risk management training (at least on an annual basis) in order to create awareness of managing risk and

staying up to date with the latest developments in the field. Finally, it is recommended that legislation be implemented which will enforce stricter risk management requirements for managing fraud risk in private hospitals and other organisations within South Africa. A King Report-type regime (IoDSA, 2009) specifically applicable to private hospitals, with specific requirements, should be considered for private hospitals to ensure that all risks are identified, assessed and mitigated in a systematic and compliant fashion.

Areas for further research pertain to extrapolating the exact same research to the public hospital sector of South Africa. It could be beneficial to the public hospital sector of South Africa if their risk management procedures regarding the management of fraud risk are investigated and improved.

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