

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF COMMERCE

DEPARTMENT OF INTELLIGENCE AND SECURITY STUDIES



**FIREARMS ACCIDENTAL DISCHARGES BY SECURITY PERSONNEL AT
SECURICO SECURITY SERVICES**

BY

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Firearms accidental discharges by security personnel at SECURICO Security Services

Year granted : June 2023

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Dedication

Special dedication of the project to my employer Securico Security Services for demonstrating a genuine interest and commitment in employee development particularly in the field of commercial security and Risk Management., dedication further spills to my family my wife Loyce Manyenere , my sons (Junior ,Thabiso and Cavalry) and my daughters(Angel, Tumelo, Gugulethu and Valerie) for their social support considering that balancing research, Work, and family time was a strain to them, gratitude and glory is relayed to the almighty God fort giving life ,safety and health to complete the research.

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ABSTRACT

Firearms are essential tool of trade or security Aids at Securico Security services operations and the Private Security sector in general, their use acts as deterrent against possible hostile confrontation. The intentional discharge of firearm is highly plausible but the unintentional accidental or negligent discharge of a firearms while on duty might have far reaching consequences to business growth and bad publicity. The researcher carefully chose this subject matter to identify the major cause or rather causes of Firearms accidental discharges at Securico Security services. The target population was 200 and 121 was the sample size. A case study was used a research design A structure questionnaire was used to collect data couple with informal interviews, field observations, records review, and planned job observations. The fishbone or Ishikawa Model was uses to extract primary causes of firearms accidental discharges. Data was collected using a questionnaire and structured interviews, the analysis was executed using plain figures processed by plain excel spread sheet and to a greater extent percentages so that there is easy interpretation. Terms of reference were strongly aligned to SHEQ international standard considering the organization is certified. A trend analysis was tabulated to ascertain progressive occurrences, evaluation of internal controls and easy monitoring and evaluation. The structured analysis revealed that most Firearms accidental discharges are caused by poor ergonomics, inadequate training. Relevant pieces of legislation governing use of firearms are found herein, legal issues and the damage likely to emerge if fire rams are carelessly handled. The research did not factor out accidental discharges occurring during training considering the organization made a strategic decision to use one portal. Recommendations to counter those causes were tabled to mitigate the causes, the scope only focused on Firearms handlers hence the limitation, the area is not heavily reached since it is covered by several pieces of legislation and confidentiality undertaking, the other was ascertaining customer perception about accidental discharges. Future research should focus on the conditions under which accidental discharges are realized, these may be but not limited to response activity, dexterity issues, type of weapons as in double or single action, officer behavior and general ergonomics of obstacle maneuvering.

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DEFINITIONS

Accident- -	An unplanned, uncontrolled, and undesirable event which causes injury, ill health, death, property damage and business interruption or a combination of the all the above.
Firearm accidental Discharge -	The unplanned act of unintentionally discharging or firing a service firearm without intention, justifiable cause, or any other circumstances.
Intentional firearms discharge-	When a security guard voluntarily discharges a firearm in defense of self or their party or justifiable cause.
Ammunition	-Bullets, grenades, bombs, and any other missile, capable of use with a firearm or discharging apparatus.
Firearm	-Any lethal barreled weapon or instrument of any description where any bullet, shot or any other missile can be discharged, or which ca be adapted for discharge. (For this project it shall include pistols, rifle, and shotguns)
Security Personnel-	-any employee employed by Securico Security services for a wage or alary.
Gunshot Wound	-the breaking of the continuous skin causing blood to escape and germs to enter, characterized by a small entry with a large exit.
Murder	-the intentional and unlawful killing of live person with a Firearm. (Only for this publication)
The Company /SECURICO	SECURICO Security services

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Safety Catch

A safety device in a firearm that prevent a Firearm accidental discharge when turned on

ABBREVIATIONS

AD -Accidental discharge.

BOI - Board of Inquiry.

CRS –Corporate Social Responsibility

C.I.T-Cash in transit

HIRA -Hazard identification and Risk Assessments.

ILO -International labor Organization

ISO -International Standardization Organization

ND -Negligent Discharge.,

NSP – Normal safety Precautions.

NCO –None- Commissioned officer.

OHSMS -occupation health and safety management System

PJO – Planned Job observation

PISI -Police internal Security intelligence.

RGN -Rhodesian Government Notice

SAZ-Standards Association of Zimbabwe

UD -Unintentional Discharge.

VPY-Versus prior Year.

ZRP -Zimbabwe Republic Police

ZNA - Zimbabwe National Army.

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CHAPTER 1

1.1 Background of the study

This report is compiled in partial fulfillment of the requirements of bachelor's degree in Police and security Studies, the author Cleopas Moyo commenced his research in Mach 2022 and concluded in May 2023. Undoubtedly the experience gained in these few months is invaluable. Areas of focus were Firearms Handling, Firearm administration, procurement, training towards Firearms Safety and tributaries causing Firearms accidental discharges.

Securico security services currently permanently positioned at number 10 Millwood Road was founded in December 1998 by Mrs. Divine Ndhlukula. It was founded from a humble beginning in the founder's cottage with five (5) employees only. SECURICO today is truly reflective of passion for quality and excellence as well as hard work. From the start, the strategy of the company has been to strive long term relationships with blue – chip clients. Growth has been exceptional and sustained, with a current staff compliment of above 3000. The success has been based on two core principles namely, service excellence, and a happy, motivated and disciplined workforce and an unquestionable investment in employee training and development.

The motivation to the founding of the security company stemmed from the situation which then characterized the security industry. The situation in the security industry was as follows:

- Substandard service provided by the industry.
- Low esteem that characterized the perception of the industry.
- Escalating crime rates due to economic and social hardships.

SECURICO experienced rapid growth and now is a major player in the Zimbabwean security industry. It is the expectation of the company that new employees should embrace and share the vision and mission of the company. It is certified to international ISO standards by a German certifier to ISO1400:2014 Environmental Management System, ISO 9001:2015 of the quality Management System and ISO 45001 :2018 Occupational Safety and Health Management System. They have a vibrant Management representative, SHEQ officers and about 200 SHEQ representatives. The company was ISO certified by an international certification body called DQS international but later reverted to SAZ (Standards Association of Zimbabwe)

Securico Security Services manages a constantly monitored Risk profile through a Bona fide SHEQ committee which is chaired by the director of corporate affairs and finance, Firearms accidental discharges is the highest ranked risk for the organization and efforts are currently in motion to eradicate or minimize accidental discharges since they have a legal bearing, and the reputation of the organization is at stake. Using firearms Securico renders Manned Security services and cash in transit for local and international bank and financial institutions, retail set ups, industrial set ups, diplomatic missions and close protection services for the elite groups who need personal escorts due to risk that are classified to be authored in this report.

Cash and Bullion in transit, Banking Hall duties and close protection services contribute to 70% of Securico operations and revenue, this is a clear indication that the organization in possession of many firearms and hundreds of Firearms handlers who handle these weapons in public space, hence the need for research to be done in this arena in the interest of public safety. As postulated by Michaels et al (2001) organizations are run by individuals, there individual at Securico who formulate an operational strategy to curb identified risk while there are individuals who fail to comply or adhere to pre-determined controls.

In 2017 Securico Security Services experienced negative perception from various accidental discharges that occurred in the Banking Hall in Bulawayo, cash transit vehicle, most of the clients became skeptical about Securico's ability to training its staff effectively, as such they raised customer complaints that were not dealt with to their logical conclusion. its concern for public safety hence the reduction in new business from financial set institutions and cash in transit business. this shift propelled Securico to employ an intergraded SHEQ Management system so as to retain existing client, recruit new ones, bring back those who had opted for the so-called safer ones and to completely change and inspire a culture of safety amongst its workforce for the sake of its stake holders, as such a CSR was invoked, and safe firearms handling was a topical mater in the risk management strategy. Eurostat (2017) postulated that the security industry has outperformed other sectors due to rise in terrorisms and urgent need for safety and security.in Zimbabwe the industry is growing due to limited barriers of entry, low capital and low wages leading to questionable industrial relation and low salaries without corresponding risk appetite.

1.2 Statement of Problem

Firearms accidental discharges was and continues to be progressive problem at Securico Security services, Securico has suffered business loss with an estimated value of USD \$98 450.00 between 2020 and 2023, 9 skilled employees dismissed for negligent discharges, 3 pending litigation cases, client property damage estimated at USD 24.000 claim value., negative customer perception and bad publicity between January 2020 to date. This problem is dominant in Security firms, state law enforcement, farm workers and cases have been reported in residential homes of citizens who posse non restricted fires for their self-defense against hostile confrontation. It appears that the current strategy and controls regarding safer Firearms handling is fragile considering that statistics are still rising or rather not dropping from the status quo., some clients are still worried about the company's capacity to reduce these accidental discharges especially in Banks and cash in transit vehicles. Global realities are that 25% of firearms accidental discharges are attributed to muscular constraint causing reflex glitches and 75% are occur while officers carry out routine tasks O'Neil (2017). In the private security contributes to 0.2% in national accidental discharge statistics while less than 1% of them result in loss of life, significant property damage or injury to public is however imminent. The area seemed to be an under researched area in Zimbabwe probably due to the sensitivity of data capturing and confidentiality policies in various organizations and Law enforcement agencies SECURICO SHEQ internal Auditors, Financial Auditors (Marian Hill, DQS external Audit report 2019) expressed concern by the organization to curb the recurring accidental discharges, they would question the senior management on the accuracy and effectiveness of the control implemented to contain the risk.

1.3 Significance of Study

This research will equip the researcher and reader with in-depth knowledge on OSH issues related to weapon handling, the general appreciation of the importance of firearms safety precaution. It is a perfectly natural phenomenon that increased business and operation of an entity carries forth a risk of being mugged by robbers and intruders, as Security Companies particularly Securico take advantage of this escalated risk profile on the client's side because these companies lack the expertise in weapon handling and general assert protection. Generally, there is a traditional perception that security operatives are not educated which brings us to a question that boggles mankind, as to why a Company entrusts a lethal weapon to an uneducated person, let alone the [Type here]

worst-case scenario being the death of a person. Some Firearms accidental discharges go unreported and unrecorded because implementing ISO 45001 (occupational Health and Safety standard) is not mandatory but best practice giving room for evading companies to deprive the state of such essential statistics. From this research, other researchers may propel Zimbabwe statistical office to structurally capture accidental discharges not only from private security but also from public law enforcement agents. The organization will benefit from the recommendations while Bindura University will consider changing curriculum to incorporate Use of force and firearm in this very program. None weapon handler will understand the sophistication surrounding firearms and at least appreciate those who served and did not accidentally discharge a firearm in their years of service. The legislature might amend the Firearms Act to tighten conditions in pursuit of the Zero discharge mantra.

1.4 Feasibility of Study

Financial resources and managerial support for the success of the project considering is the higher-ranking risk in the risk matrix. The only risk anticipated and mitigated was having an accidental discharge during the research.

1.5 Aims of the Study

The purpose of this study is to ascertain the common causes or root cause of Firearms accidental discharges by Security personnel at Securico security Services.

1.6 Objectives of the Study

- ❖ To identify the causes of Firearms accidental discharges
- ❖ To assess the strength of both internal and external control regarding firearms handling in the organization.
- ❖ To assess the impacts of such discharges on the organizations Strategy and relationships management with its stakeholders.
- ❖ To identify possible solutions and recommendations to improve the current controls in pursuit of reducing the risk to tolerable levels that the organization.

1.7 Research Questions

- ❖ What are the main causes of Firearms accidental discharges?
- ❖ What is the level of management commitment in reducing or managing the causes of Firearms accidental discharges?
- ❖ What are the impacts of Firearms accidental discharges in the organization?
- ❖ What measures can be taken to improve firearms handling in the organization?

1.8 Delimitation/Scope of the research Project.

The research only concentrated on dully attested Security operatives trained by Securico Security Services in Firearms Handling. Securico has more than 800 weapon handlers comprising female, males, supervisors, middle management. The study only uses information acquired from Securico Firearms handlers only. The scope also covered Securico employee who handle firearms in Harare and Bulawayo while records were observed for firearms handler in departments under same conditions. the firearms are all registered with the controller firearms and only securico records were relied on in this research.

1.9 Limitations

- ❖ Researcher did not manage to interview Securico clients to establish market perception.
- ❖ Some employees had a feeling that disclosing information has a legal bearing to the company and some felt it shakes their job security since they had a confidentiality undertaking explicit in the contract hence, they referred to supervision. However, supervision was interviewed.
- ❖ Shortage of time was compensated by making use of weekends and public holidays.
- ❖ There were ones stop data collection entailing that accidental discharges from training sessions were captured in one portal. The number was determined, and relevant comments relayed to chapter four.
- ❖ No financial resources to cover the entire Securico branches which are scattered. all over Zimbabwe. The researcher considered this to be a trivial set back considering the organization has one data collection portal.

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1.10 Summary

The chapter investigated the background of the organization and research, the introduction, the problem statement, significance of study, objectives, limitations, research questions and the scope. The next chapter explores the related literature that other writers have propounded concerning the subject under review.

CHAPTER 2

LITERITURE REVIEW & THEORETICAL CONCEPTS

2.0 Introduction

In this chapter the researcher shall explain the theories propounded by credible schools. The bulk of the information used in this research was established from reliable, verifiable and credible sources from the internet, NSSA On-guard Magazines, police outpost magazines Encyclopedia of occupational health and safety and pieces of legislation relevant to the subject matter, Firearms conventions, newspapers and the library of National Armory at Zimbabwe Republic police and classified company records that were only declassified for the purpose of this research. The effects solicited for by chapter one of this paper shall be addressed in this chapter, Theories of accident causation and theories of Firearms accidental discharges shall be discussed and drawn to the context of the researchers' findings. Arguments and comparisons shall be discussed in chapter five of this paper.

It astonished the researcher that the subject of firearms discharges and firearms related matters were hardly researched probably due to their sensitivity, secrecy and the need for technical information on the subject matter, however from a safety perceptive .it was established that the Zimbabwe OHS policy (2014) still follow the ILO decent work agenda. The introduction of the United States dollar into our economy just after the economic recession geared an increase in Armed robberies. armed break ins and muggings, this propelled security organizations to serious invest in weapons thereby importing other weapons from China, Russia and south Africa due to increased business and productivity. Oxenburgh et al (2004) postulate that the health and safety of all employees is closely linked to the company productivity in all workplaces.

Koop man (2001) states that accidents bring pain and suffering to the worker, family member and peers especially it results in disability or bereavement, the company would have lost a skilled employee or foremen while family members might have lost an uncle, a father or mother for a Fire accidental discharge. The company suffers from reduced productivity from his peers out of empathy and social norms, pressure groups might rise if the situation is not addressed with the urgency it deserves, and the company also faces cost of recruiting and training a new employee or employees. When an employee is incapacitated by a bullet or projectile accidentally discharged [Type here]

from a firearm, he does not get to enjoy a normal yet his contribution to social arenas like churches, association and certain affiliations.

Amongst all adverse effects of a firearm accidental discharge that has fallen into the public domain is the incapacity of the organization to manage the crisis and deal with customer perception and other players of the supply chain. The only positive aspect of a fire discharge is the fact that the weapon works but client do not really want the demonstrate on site and in the face of their employee and stakeholders, the client then considers a Securico competitor with safer behavior regarding firearms handling or to completely remove the firearm from the site in the name of protecting children, neighbors, visitors from careless firearms handlers.

According to Frank birds 1969 accident ratio, it is believed that 88% of accidents are caused by unsafe acts emanating from peoples behaviors ,10% emanates from unsafe physical and mechanical conditions while 2% are med to be unavoidable, Suppose these statistics were only referring to Fire arms accidental discharges ,the literal translation would be that 98% of the discharges are cause by people who are a combination of employers and employee ,the duo would just have to develop a positive mind set towards fire arms safety ,these parties would simply adopt the guidelines of ILO towards accident prevention by investing in training, availing material resources ,reducing stress to fire arms handlers and conduct Psychometric evaluations at planned intervals.

2.1 Theories of firearms accidental causation

Generally, accidents cause disorganization, damage to property, compromise the decent work agenda (ILO1919), disablement and fatalities to personnel. Accidents interrupt production, bring anxiety to those involved and creates man hour lost to the business. in this chapter the researcher shall discuss ancient and Moden theories of accident prevention and align them with profound research findings of other causes of unintentional discharges.in this section the researcher deliberately chose theories incline to occupational health and safety considering that the organization is certified to three international standards.

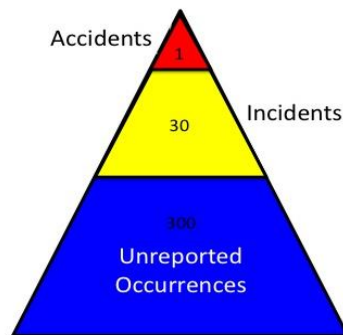
[Type here]

According to O'Neill (2017) is an action of the trigger mechanism that results in an unplanned discharge that is behind or beyond the prescribed use. While ISO45001 :2018 describes an accident as an unplanned and undesirable outcome of an unmanaged hazard, the same standard further declares that a hazard is any acidity, material that is a source of danger with potential to injure people, damage property if it is not controlled.

2.2 Henrich's Accident Ration Study

In 1931 an American safety man studied several thousands of accidents and was definite that the ratio of major accidents, serious accidents and minor accidents was 1:29:300 meaning that a total of 300 close calls or near hit may aggregate to 29-30 minor injuries leading to one major injury or disabling injury. In this research no deaths were recorded as a result of an accidental discharge but on injury was noted meaning that if Henrich theory is bought to constitute organisation had 300 close call that escaped the incident radar. The theory is diagrammatically illustrated as below. 500 cases were s studied.

Fig.1



2.3 Frank Bird accident causation Ration (1969)

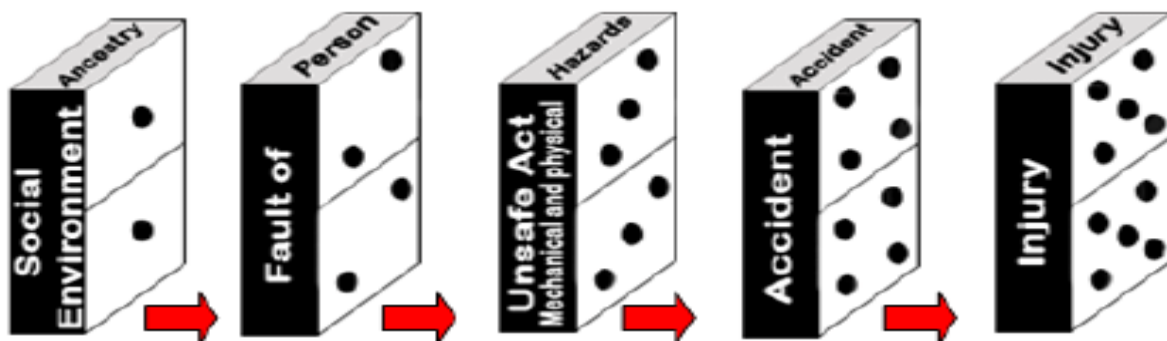
Frank Bird was a Safety Director in a North American Insurance company; He studied 1 700 000 accidents and improved Henrich's theory. He improved the ration from 1: 10 :30 ;600 .in the context of this research, Frank bird was emphasizing that when an organization record 600 near misses, it is likely to succumb to 30 property damages ,10minor injuries and one serious accident. Considering this paper Enoka (2001) [postulates that high risk task escalates the risk profile of an

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activity whether routine or abrupt, the number of firearms at securico when discharged simultaneously may back up Henrich theory. However, near misses are hardly recorded in several spheres including the research organization hence the theory may be rendered void by the inability to set up a near miss reporting system as stipulated by ISO45001 :2018 Occupational Health and safety Management system.

2..4

Fig2. The Domino Theory (H.W Henrich (9131)



This theory was propounded by Henrich that characterized accidents as a domino sequence that can only be interrupted by removing one domino to stop the accident from realizing argues that the employee environment play a vital role in accident causation, this environment is but not limited to believes ,character from ancestry (Eugenics) while domino two is careless due to lack of special attention, domino three is an unsafe act by the person ,domino the accident and five the injury. Considering this research only Enoka (2003) attributed accident causation to the Environment regarding firearms, the dynamics of the environment in firearms handling for this research were distributed to four departments and cash in transit being the only with several ergonomic challenges. Critics of this domino are that its linear formation makes it too simple and the environment is not what the person grew in but what the organization has subjected the employee to, for example, management lack of control may bring complacency and stress as indicated by Hendricks et al(2006) ,trips and slips articulated by Reason (1990) may internal or external environment.

[Type here]

International research and Zimbabwean statistics have revealed that 88% of accident are cause by people while,0% unsafe conditions and 2% unstoppable acts of God. Burnham (2008) accident prone theory suggests that some people are generally accident prone (1920-1960 theory). critics around this theory suggest that the process is triggered by unsafe conditions created by the employer, hence the stress from poor Ergonomic of work, workload, stress Hendrick et al (2006) and skill base movements associated with the obstacle maneuvering (Reason (1990)

2.5

Fig3 The Iceberg Theory



This theory clearly suggests that blurred leadership may only look and insure at costs that are visible to the organization disregarding costs they deem trivial, yet they have far reached consequences. Compensation and medical Aid costs may be visible but not the cost of down time, requirement repair, tacit knowledge, legal wrangles, training replacements, production delay from an accident, reputation danger to mention but a few. The Domino effect to service delivery and delay of may have reputation issue particularly when management convenes aboard of inquiry. Ngugi and Mugo (2011) declare that service delays may widen the scope of alternatives among a company's competitive environment. Total loss control initiatives from ISO19766 :2015 Security Operations and ISO 3100 :2018 Risk Management standards underpin the need for an eagle's eye approach or process base risk assessment so that all avenues are tackled in the risk profile. The

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researcher shall utilize the Ishikawa diagram in chapter three to cater for the invisible costs under this theory. this cause shall for the basis of the questionnaire thereby making the entire research pare reliable and credible.

2.6 Theories on questionable Ergonomics

According to Moray (2005), ergonomics is a class of hazard hat cannot be distinctly dealt with from biological, physiological and physical hazards.it divided into four board class that are but not limited to Anthropometry, Biomechanics, physiology and psychological ergonomics. The International ergonomics association (IEA) (2017) seeks to address human behaviors ergonomics through scientific research. Sanders and McCormick (1993) state that ergonomics is the study of human abilities, limitations, tool design, system design, task formulation, job safety analysis, skeletal compatibility, comfort and psychological satisfaction of task.in this section the researcher will mention but a few findings regarding firearms accidental discharges.

2.7 Loos of balance Stress, startle reaction and stress.

The loss of balance theory was articulated by (Cordo & Nashner,1982; Elger, Wing, & Gilles, 1999; McIlroy & Maki, 1995; Schieppati & Nardone, 1995). This assertion is backed by the presence of physical hazard presented by maneuvering in rough terrain. For example, cash in transit operatives may climb on elevated platforms, evade sharp corners, get into elevators, escalators, try to maneuver in half-built buildings during construction, such areas present mechanical and physical risk to the firearm handler. Fire Ram handlers may walk on slippery surfaces where cleaners are carrying out hygiene services. Muscle contraction theory was also articulated by Charles (2000), Enoka (2003) and Hendricks et al (2008), they strike a balance that involuntary action may be conceived from reflex agilities associated with a firearm handler attempting to grasp balance, as such, when such a handler has a loaded weapon or a round in the chamber, the weapon handler is bound to discharge the weapon. Stress tolerance and management or rather incident dilemma management skills must be an integral part of fire arms training as articulated by Reason (1990) and Enoka (2203)

2.8 ABC Taxonomy

Oniel (2017) analyzed cognitive motor relationship between the body, the brain and the state of mind, he classified them into three distinct, but interrelated sympathetic movements where (A) stand for antecedent triggered by stimuli or startle response, he argues that the startle triggers a finger action which is (B) or behavior and then (C) an unintentional discharge materializes. This action is due to the relationship between the brain and the muscles through the neuron system. However, this theory is backed by the stress there by Hendrick et al (2006) who argues that for an officer to behave in this way, he or she will be under stressful conditions. In 2012 a police officer discharged a weapon after a spark plug sound in the streets, this clearly indicates that the ABC Taxonomy system is accurate and aligned to Bisdoorff et al (1999). In light of the above theories the law of ergonomics remains in play because, it is generally the relationship between the weapon handler and the use of the fire arm, obstacle maneuvering is imminent cash in transit duties, however, the limitation is that there is no fast rule internationally that declares that weapons should be loaded or not. In this research did not cover the situational awareness state of readiness is it is a disciplinary issue.

2.9 Complacency

It is the notion of O'Neill (2017) that a complacent approach towards weapons handling especially during the handover and takeover period has caused even fatal accidental discharges where a fellow service man kills another during handover and takeover of Firearms. He further alludes that omissions and non-execution of the NSP (Normal Safety precautions), this might be due to lack of monitoring and supervision of the very execution of such an essential stage of hand over and take over. O'Neill (ibid) further emphasizes the Fire arm barrel direction must always be facing upwards so that in case of an accidental discharge the stray bullet vanishes its strength into thin air than to have a ricochet that might hit a passerby, newlyweds, children at a pedestrian crossing, a shopping parent, a prominent politician or business man not to mention a Gas station adjacent to the road. The Burnham theory (2008) and the accident prone persons theory can only be brought to useful use when complacency chips in. It is normally caused by boredom, monotonousness of task, lack of concentration, fatigue and porous controls that let weapon handlers work with a finger in the trigger instead of outside the trigger house as articulated by Heim et al (2006a,b)

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2.10 Firearms Use in Private Security Operations

Apart from the Zimbabwe National Army, the Zimbabwe Republic police, City Council police, the Central intelligence organization and other Armed forces, the private security industry is run through the Ministry of Home affairs and issues private licenses to security companies so that crime is managed at enterprise level. This means that security guards have a high exposure rate in the use of firearms comparable. Fire arms are used for billion and Cash in transit VIP escorts ,force on force engagements ,deterrence ,room clearing ,firing range practice, assert protection on sites ,detention arresting of intruders ,searches ,public order maintenance .these occasions then invite inherent risks to the users and the general public due to high stress levels ,repetitive movements ,hand switching for obstacle maneuvering ,abseiling and disembarking a vehicle ,startle response to false alarms O'Neil (2015) ,hence the remarkable findings of Charles (2000) and Enock (2003) who attribute fire arms accidental discharges to muscle contraction ,loss of balance and involuntary actions. Security operations, particularly weapon handlers, have a highly versatile mindset in the sense that their environments vary from time to time hence the Mantra by Sun Tzu "Your situation is your best commander "in the Art of War.

2.10.1 International conventions and legal statutes

It is a universally acknowledged phenomenon that all material with potential cause harm to, property and the environment are legislated and international and at national level. Firearms by merely of being lethal weapons are in Zimbabwe governed but the Firearms Act Chapter 10:09 while a convention in Inter –American Convention Against illicit manufacturing and trafficking of firearms. (CIFTA of 1998). The researcher and other researchers are inclined to believe that though not powered by steam, electricity, gas or any other source of power but a Fire has all the qualities of being classified under machines. As such the Machinery convention 119 of 1963 and recommendation 118 of the same year must apply to Firearms. The Rhodesian Government Notice 302 of 1976-part 3 section 24-30 is explicit on the application of safety procedures so that an accident is avoided, firearms cannot be an exemption to this piece of guideline. In Zimbabwe the Firearms Act chapter 10: 09 is supreme as read with the RGN 61 of 1979the international code of conduct for security providers (IcoCA) founded in 2013 has provisions laid out from section.

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30-32 outlines the guidelines to use of force and firearms, however considering this research, the researcher did not focus on intentional discharges accidental or unintended one. Intentional firearms discharges were deemed to be a research area that may be covered by other researchers under use of force and human rights in the private security sector.

2.10.2 General understanding of a firearm and its operations

Most personnel, especially in the civilian community, believe that there is a battery attached to a simple handgun or pistol. There are generally three types of firearms, rifles, pistols and shotguns, single action and double action, manual operation, automatic and semi-automatic depending on the maker's specifications. Many firearms have safety catches specifically designed for safety and to intercept accidental discharge while others do not have. pistols have a shooting range from 40-50meters .shotguns range from 40-60m while rifles range from 350 -1000m.most weapons have a magazine that feeds more than 5 round of ammunition ,when a live round is in the chamber as a result of a voluntary and pre mediated action by the user ,safety catch is put off ,a trigger is squeezed ,a firing pin hits the primer(center back of a round ,combustion takes place inside the shell and an unstable gas is produces releasing the bullet head out through a weapon barrel at a speed that ranges between 420-800m/sec depending on the weapon. Muzzle velocity is the speed of the live ammunition as projectile and spiraled by the rifling system in the barrel. The greater the number of rifling in a weapon, the more accurate and powerful the weapon is. Most firearms are named after their makers.

2.10.3 Source;(*Feodor Tokarev*)-*Manufacture of 7.62 Tokarev Pistol.*



2.10.3 Firearms Normal Safety Precautions

It is imperative and in other countries illegal not to conduct safety precautions when issuing or receiving a firearm. These precautions are applicable to all weapons except for revolvers and other weapons without safety catches and moving parts. The precautions are as follows according to Abel (2007) and O'Neil et al (2017) while reason (1990) propels firearms handlers to consider all weapons to be loaded, as such muzzle direction should always be in the safe direction, preferably at a 45-degree angle facing up in the air.

- ❖ Point the weapon in the safe direction.
- ❖ Check safety catch to safe and remove the magazine.
- ❖ Safeties catch to fire and cock three times and hook.
- ❖ Safety lever to safety, inspect for any live ammunition and cartridges.
- ❖ Safety lever to firing position.
- ❖ Working parts forward, safety catch to fire and prove by firing in a safe direction(barrel)
- ❖ Safety catches to safe and insert empty magazine.

Ayoob (2012) argues that variations in safety precautions are attributed to various makes, built, safety features and certain trigger pressures particularly in Police department. The above precautions re not formally documented in the Zimbabwe firearm Act chapter 10:09 but are general
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guideline adopted international and are compatible with most firearm including the AK 47 Russian model. In the scope of this research, the author will be inclined to the above set of stages when referring to safety precautions. These stages shall also be a guide in the interview section to be discussed in chapter three. Ayoo (ibid) emphasis that for any weapon which is a pistol, rifles or a shotgun, the user must physically inspect the chamber and fire the action in the safe direction to verify. Controlling the muzzle direction in the safe area is of paramount importance so that an unintentional or accidental discharge is shot in the air other than on a tarmac surface that may ignite a ricocheted. Ayoo (2012) postulated that trigger pressures depending on the weapon have a contribution particularly where a startle response is imminent., this was also indicated by Bisdorff et al (1999), Hawk and Cook (1997)

2.10.4 Firearms training

Researchers from the police force and other law enforcement agencies emphasized the aspect of training as one of the most contributing factors of firearms accidental discharges. Shannon et al (2002) strike a balance with the researcher and police commissioner Kelly (2011) that saying something a thousand time is not as good as living it once, the duo argue that firearms training must not be conducted like any other training where in-house sessions are held with plenty refreshments. They propose a hands-on approach with less theory. It is imperative that firearms trainer adopt these guidelines so that there is intimacy between a firearm and a firearm handler. General George Wison of the United States Army once said, “A gallon of sweat might save a pint of blood”, the researcher is tempted to believe that he was literally referring to the extent of aggression required to deposit information of a new firearm handler to avoid loss of live unnecessarily through an accidental or negligent discharge. The researcher notices that there is no documented standard in any piece of legislation in Zimbabwe that gives guidelines on the quality, duration and competencies of trainers. This gap opens opportunities for customization in Private security. The Firearms Act also does not have training guidelines let alone the controller of firearms at Police General Headquarters.

2.10.5 Firearms procurement and Multiple Handling.

According to Abel (2007), the act of giving one type of firearm to a single person creates the intimacy alluded to by Kelly (ibid), he postulates that when a soldier is given new firearm with different or unique way of operation and firing than the one, he was used to might ignite an accidental discharge, it is a natural phenomenon that humankind curiosity triggers unwarranted action. This explains why organizations and law enforcement in first world countries deal with one type of firearm so that they customize the instructions, policies and the training drill or manuals. However, the set back of this endeavor might be the costs associated with phasing off large pile of firearms to replace with the new ones, normally new firearms come with tactical and safety merits attached to them, therefore it is imperative for the company to conduct a cost benefit analysis and consider the subsequent changes to the training guideline manuals, safety precautions and customer perception. This procurement risk may cause losses and impact negatively on the organizational strategy as alluded to by Spacey (2016)

2.10.6 Effects and Risks of Firearms accidental discharges.

The worst that can happen in a fire extinguisher accidental discharge is loss of the component and dirt but with firearms it is loss of life. As emphasized by Izak (ibid) accidental firearms discharges have far reaching consequences especially if human life is claimed by the stray ammunition. These negative impacts are but not limited to loss of life of fellow security guard, increased adverse publicity especially in this era of Social networks, bad publicity of the company, damage to property, trauma and stress on the discharger, litigation, reduced customer loyalty, lost in time in accident investigations, crisis management and recovery plans, furthermore the state might lose confidence in the company on its capacity to protect other people property. If a fire arm license is withdrawn from a Security Company it automatically means that they disengage all bank operations, C.I.T operations or simply get out of the business because they might not adapt to the competition in their business environment.

2.10.7 Summary of the Firearms Act Chapter 10:09 -Zimbabwe.

It is the principal law dealing with firearms in Zimbabwe. Established by Act of parliament in 1956 whose current amendment backdates to 1972. Administered by the Ministry of Home Affairs through the ZRP and other peace officers, it is used in conjunction with other pieces of legislation like the Criminal procedure and Evidence Act Chapter 09:07. The act was designed to make provisions for the regulation and controlling of fire arms possession, use, sale, repairs and maintenance of fire arms and ammunition, it covers the registration of a Corporate, restricted ownership, powers of the controller (Minister), conditions of operation, supervision, require infrastructure for safekeeping and is very explicit on the need for a fire arm bearer to take reasonable measure to ensure a fire arms is not discharge negligently and not accidentally.

The Firearms Act section 33 further allows the police to carry out integrity and compliance checks on all licensed owners at intervals of their choice as a matter of National Security. Organizations must be in possession of a fire arms license whereas each fire arm has a certificate of its own. According to the Private investigators and Security guards control Act chapter 27:10 and the Criminal procedure and evidence Acts Chapter 09:07. Security personnel are then empowered to be in possession of a weapon without a certificate belonging and registered in the name of one employer meaning that their conduct with fire arms then subscribes to other law outside the fire arms act. For example, giving threats of violence while in possession of a firearm might not be found in the Firearms act but one might be charged for violation the Criminal law codification and reform Act Chapter 9:23.

The Firearms Act prohibits improper use like pointing, threatening to shoot without probable cause, prohibits alcohol and drugs while in possession of a firearm and is very explicit on prevention against Negligent (Accidental) discharged. Particularly in a public place (section 27 © of the Firearms Act. However, in this research, the context of the discussion is focusing on firearms lawfully issued to security personnel as part of the service delivery system.

2.10.8 Employers and Employee duties

According to Statutory 68 of 1990 of the NSSA Act (Accident prevention Scheme) employer just like in any other field outside Firearms are still compelled to avail sound policies and procedures regarding firearms handling, safe operation of the machinery or equipment. Employers are obligated or rather encouraged to avail relevant Firearm training from competent personnel, technical information regarding procurement, stripping, assembling and disposal of non-repairable firearms. Supervisors are therefore obligated to report ,record and conduct thorough investigations into Fire arms accidental discharges and other fire arms related incidents, Furthermore supervisors must ensure that all hazardous activities and behaviors are dealt with according to industry code of conduct so as to protect the public and other business stakeholders .According to the aforementioned piece of legislation employees are obligated to report defective fire arms ,missing parts ,insecure parts ,defective ammunition ,mal operation ,unique operation. Employees working with firearms must constantly participate on psychological evaluations. wear Personal protective clothing and equipment correctly, Ultimately Employees are not allowed to operate machinery (Firearms) they do not have knowledge on in the interest of their safety and others and to avoid legal wrangle with employees after a fatal accidental discharge. The Labor Act chapter 28:01 and Routh (2013) advocate for a workplace dialogue through works council and collective bargaining agreements this regard only trained supervisors are allowed to engage security operatives with firearms related issues.

2.10.9The controversy between Accident and Negligence

Oniel (2017) defines an unintentional firearm discharge as an action of the trigger mechanism that results in an unplanned discharge that is behind or beyond prescribed use. Section 27 of the Firearms Act ignored the use of the word “accident “when dealing with firearms, it prescribes that it is negligence and makes it a criminal offense particularly when the weapon is discharged in a public place. In the same section 27, it is illegal to point a firearm to a live person even if the weapon is unloaded. This clearly depicts that the legislature intended to be strict and deterrent when dealing with firearms. However, Armstrong (2010) postulates that an accident is an [Type here]

undesirable event caused by an act of commission or omission resulting in injury, damage to property or both. the definition lacks the component of death, making it less superior to convince the legislature to lessen the conditions. The labor Act chapter 28: 01 declares that any employee who suffers ill health or fatality due to his or her own negligence is likely not to be compensated by the worker compensation insurance .the Fire Arms Act declares that there are no accidents in fire Arms handling while Frank bird calls it an accident on the basis that no one takes off from his home to discharge a fire arm intentional to anyone .he declared that if such is realized then Feltoe (2006) calls it murder. The NSSA Act chapter 17 :04 .SI 68 of 1990 and the Factories and works act chapter 14 :08 contradicts with the Firearms act chapter 10 :09, none the less, the controversy lives on, and organization's consider internal Boards of inquiries or accident investigations reports the only tools to administer the code of conduct hence the alignment with the current Labor Act chapter 28 :01.

2.11. Leadership Commitment to controls.

The organizations' structure follows the strategy of the organization (sun Tzu). The strategic planning workshop, the risk profile and the resource allocation clearly spell out that Firearms accidental discharges are a case of concern. Kaplan and Norton (2006) indicated that the balanced score card is the best tool for a performance bases system, as such the origination has been using this tool for the past 18 years, this made data collection and Analysis a walk in the park. The performance monitoring and evaluation on the SHEQ folder Domain made it easy for the researcher to analyze, this is compliance to ISO 9001 :2015 Quality management system, it propels organization to have actional departmental objectives at relevant functions and such has been complied to .Organization has a legal register to monitor changes in legislation, a fully fleshed training department with competent personnel ,supervision team ,training needs identification system and a risk management framework subordinate to ISO 3100 : 2018 Risk management framework. The Balanced score card by Kaplan and Norton (ibid) is the organization's supreme tool in performance evaluation. However, the interview and statistics render all controls questionable hence the rationale of conducting this research. Gorge and Button (2010) articulated that the rate at which securely services is growing is bound to bring more entrepreneurs into the field, this is entails that more weapons may be imported and utilized locally thereby escalating the risk of unintentional discharges as O'Neil cites them(2017).ISO 9001 mandates senior

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management to take an active role in the formulation of a sustainable business strategy and this cannot be achievable with accidental discharges on the rise.

2.11.1 The Effects of firearms accidental Discharges

In this section the researcher shall address one of research objectives by articulating the prominent effects of firearms accidental discharges. The researcher shall indicate the position of the legal statutes, the general public and the perception of securico stakeholders regarding firearms discharges. The scope of effects stated hereunder shall be aligned with the Criminal procedure and Evidence act Chapter 9:07, the Criminal law Codification and reform Act Chapter 9:23, the factories and Works Act chapter 14 : 08 .The NSSA Act Chapter 17 : 04 ,the RGN 61 of 1979 ,section 48 of the Zimbabwe Constitution (2013).Vol 21 and the provisions of the international Code of Conduct by Security Providers.

2.11.2 Murder and Culpable homicide

According to Feltoe (2006) murder is the unlawful and intentional killing of another live person. as suck killing of another person through an accidental or negligent firearm discharge can be regarded as murder and then be reduced to culpable homicide if it is proven that the was no intention to kill the victim, none the less the victim might be a Chief Executive officer of one of your major clients and this might sour your relations hence the reduced business growth. In the context of this research, these discharges are not intentional, and no motive is built before commencing duty hence the name “accidental discharge. Oniel (2017) opines that any action of the trigger mechanism done outside the intended purpose is an unintentional discharge. The *dolus directus* or actual intention will be determined when negligence of the operative is ruled out. When judiciary system scrutinizes and affirms the criminal negligence part it might spill to the corporate employing the culprit (vicarious liability) *See cases Nkomo (1) (1964) and Tekere & Ords (1980) at507508.*

2.11.3 Occupational injuries, Fatalities

The decent work Agenda was first introduced and then defines by the Director general of ILO at the 18th session Conference in 1999, he declares it as opportunities for women and men to work in the world of work to acquirer productive and dignified work in the conditions of freedom, equity

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and human security. In this paper the researcher aligned the directors' assertions with the provisions of ISO45001 :2018 that advocates for zero harm not only to employees but other interested parties like the general public. O'Neil (2015) however argues that less than 2% of accidental discharges lead to death of employees or a member of the public. This was backed by the fact that in the securico risk profile, fatalities were recorded on Road Traffic Accidents and not on Firearms accidental discharges. Only one incident in 2012 resulted in self-injury from the discharge. Remarkable interventions were noted in firearms clearing points where First Aid boxes and dressing guidelines were displayed in all points. The factories and works Act chapter 14: 08 mandates corporate to complete a WCIF 14, a G1 and G2 for all occupational injuries and fatalities. The portal only had one incident emanating from firearms while the majority were from Road traffic accidents due to a high fleet, these statistics were a contributing factor for loss of balance and muscle contraction.

2.11.4 Culpable Homicide and deflation blows

According to Felton (2006) culpable homicide is described as an act of killing another live person without the intention to do so. Sound Health and safety Management system do not condone all occupational fatalities since they all subscribe to the ILO decent work agenda. Securico Security Service implement a documented CSR programs that runs concurrently with corporate governance principles, the company is mandated to be wary of actions done by their employees that might have an adverse impact on the company's strategy, as such continuous risk assessments and HIRA system are an integral part of Securico business management system. The *Aberito ictus* situation does not apply in the context of this research as no intention to use the firearm was determined, however the dilation may occur when the user skips the first stage of the NSP and hit a concrete surface, the ricochets of the live ammunition may hit a bystander. Nonetheless, the legal wrangle still drags the organization to court until intention and negligence are scrutinized on account of experience, education, mental health, this only applies to South African legislation. See Ngema Case (1992)

2.11.5 Use of Force and Human Rights

Security guards at Securico are not only trained on work related issues but they also cover areas where they conduct themselves professionally while on and off duty, this enhances discipline

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especially when security guards do not have access to firearms outside work, when they receive intelligence about unauthorized possession and use of firearms, they have an obligation to react accordingly by reporting to the nearest police station. The four principles of neutrality, proportionality, necessity and ethical approach guided weapon handlers not to engage in active combat in urban set ups. this gesture protects the basic Human right to life (section 48 Zimbabwe constitution) and reduces chances of startle response causing unintentional discharges. in this research, use of force was out of context considering that the situations were not active combat, but generally involuntary conduct as outlined by Charles (2000)

2.11.6 Malicious damage to property.

Police Commissioner Kelly (ibid) strikes a balance with Abel (ibid) that property damage is one of the least worries when an accidental firearm discharge occurs, his emphasis is on the protection of people before property. Felton (ibid) defines malicious injury to property as an unlawful and intentional act of causing damage to another person's property. An accidental firearm discharge leading to property damage triggers claims on the part of the offending company or individual, however at Securico, all trainees complete a Firearms indemnity undertaking that holds them accountable to all acts of commission and omission regarding firearms handling. The company may argue that the ambassador had no intention, but the criminal negligence may still stand an argument for failing to realize the real risk or possibility that his or her action may lead to property damages Burchell and Milton pp536-537. it does not if he or she did out of ill will or spite, all that needs to be proven is the fact that property was damaged. see Nyan Criminal Law pp537-538 and Milton South African Criminal Law and Procedure Vol2(2nd ed) p825.

2.11.7 Firearms license Revoke

Through the Fire Arms Act Chapter 10 :09 and the Rhodesian Government Notice 61 of 1979 as amended from time to time, the Fire Arms controller has the right to withdraw a firearm Operating license where significant trends of misuse and volatile issues are recorded. The effects of such are that there will be loss of business in the financial sectors, industrial and cash in transit. When a Firearm license is revoked, the organization runs a risk of shutting down all clients where firearms are deployed. This in turn compromises the growth and resilience of the reorganization in competitive environment.

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2.11.8 Corporate image and reputation

Discharging a firearm intentionally or accidentally has both negative and positive impacts on the company's capacity to consider the needs of its interested parties. Securico employee or subscribes to ISO 9001:2015 which is very explicit on matters of consideration to the public and other interested parties. Marketing Guru Kotler (2006) postulated that is very costly to recruit new customer due to advertising costs while it is cheaper to maintain existing ones .Negative publicity about an accidental discharge on which ever medium triggers competitors to sneak into the territory of the company so as to convince them otherwise ,this further explains why such matters are at times not reported especially if there no injuries and or fatality .Negative publicity in regards to neglecting public and customer safety

2.11.9 Chapter Summary

This chapter covered the literature that the researcher utilized to demonstrate academic maneuvered in related literature, in depth research was aligned to the legal statues and other researchers on the same subject matter. Particular attention was drawn to the risks of accidentally discharging a firearm considering it one of the research questions.

CHAPTER 3 RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers the techniques adopted by the researcher to come up with knowledge and research findings. Research methodology is all about procedures and techniques used to come up research findings. It is an explanation of all activities and procedures undertaken during the period of research. Rowley (2012) ascertained that, the core concepts underlying all forms of research are their methodologies, the process through which researchers try to systematically answer questions to problems through data. Kombo and Tromp, (2011). State that research design is the outline, plan or scheme that is being used to generate answers to the research problem. It is basically the plan and structure of investigation or inquiry. Descriptive research sought to establish factors associated with certain occurrences, outcomes, conditions or types of behavior. This chapter also dwells on the sampling techniques, data analytics and evaluation of reliability and validity of data.

3.2 Research design.

Creswell (2012) propounded that research design is the research process that involves the overall assumption of the research to the method of data collection and analysis. In addition to that the choice of the research design depends on the objectives of the researcher in order to answer research questions. Cooper and Schindler (2009) also defined research design as the arrangement and structure of investigation to obtain responses to research questions. In this study the researcher used a case study. According to Bromley (1990), case study research is a “systematic inquiry into an event or asset of related events which aims to describe and explain the trend. This assertion was backed by Yin (2011) who indicates that case studies serve several search purposes chief among them being the ability to provide descriptive accounts, backing up of theories and test runs.

3.3 Study population

White (2000) defines population as the total number of subjects from which the study is conducted. In this case, the population refers to the employees of Securico including senior and middle managers who handle firearms. According to the researcher the population refers to managers and non-managerial employees of Securico. The study will cover at least one hundred and twenty-one of the currently serving firearms handlers from different departments. Securico security services

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have a firearms handler's base of approximately 200 active handlers who are working at head office in Harare. Cash in transit, banks, close protection division and lesser number in farms. It is crucial to have a sample that is representative enough to enable proper conclusions to be reached. C.I.T had more handlers, hence the maximization of questionnaires in that department. Bryman (2012) postulates that a target population is a representation of the universe of units that share common attributes, in this case, the sample group are all trained weapon handlers but from different departments that handle firearms though with different exposure rates.

3.4 Sampling Method

Lohr (2009) indicated that sampling the sampling procedure is the careful selection of suitable candidates or representatives of the aggregate population. In this paper stratified random sampling was utilized owing to the guidance by Lohr (ibid) the random samples included all levels in the hierarchy of handling firearms from the rank of security operative to senior management. Questionnaires were carefully issued to personnel within the scope and context of the research to avoid ambiguity and lack of understanding. The interviews were classified into the very stratus by demographic variables and categories. In this research, the majority are or were station within the cash in transit department hence the objective bias or saturation of the strata. (Bryman (2012)

3.5. Research instruments and techniques

The researcher used the following methods in data collection, structured but self-administered questionnaires, field observation observations, CCTV footage viewing, face to face interviews and records review from previous BOI backdating to 2020 Covid-19 Era. The questionnaire was used as the supreme tool to enhance reliability, validity and avoid bias. The questionnaires were issued at parade points, digital platforms like teams, meetings and morning PEP talks. The guideline of possible cause was deduced from previous inquiries whose records were clearly filed and labeled by the SHEQ department.

3.6. Data collection procedure

Lohr (2009) highlighted that sampling is the process of selecting a suitable representative part of the total population. The researcher is going to use stratified random sampling. The stratified method of sampling is used to get information from different stratus which include senior

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managers, middle managers as well non-managerial employees. Sample random sampling is used to select respondents in stratus identified. Sampling is also going to be done conveniently whereby only those who are present are the ones to be selected. In other words, questionnaires were distributed conveniently, and a few night operatives were selected. The stratification factors are the level of hierarchy and sex so the study is not gender biased. Stratified random sampling ensures all groups of employees are represented and the results are more reliable.

3.7 Sample Frame

Saunders et al (2007) defined sample frame as a complete list of all the cases in the population from which the sample will be drawn. The respondents were drawn from a total of one hundred and twenty-one currently serving firearm handlers and management at Securico security services. However, if former employees who were dismissed for accidental discharging fire rams could be reached, they may be involved in this study.

In this research both primary and secondary sources of data are used to solicit information. Primary data is in the form of questionnaires and interviews. Secondary sources cover data that has been processed for other uses, such information is included both previous and available turnover records at Securico security services. Primary data is also associated with some benefits such as it is more reliable, accurate and up to date and can be used to validate secondary data in the form of theories, views and principles. It is also free from misinterpretations since one can focus on relevant data specifically meant for the problem only. The researcher managed to interview both day and night operatives after sever consultation by the area supervisors. The researcher issued questionnaires at parade points and supplied a biometric censored drop in safe for collection.

3.8 Data analysis and presentation procedures

The data is going to be presented in the form of tables, ordinary spread sheets O'Neil (2017) pie charts and graphs for easy interpretation and understanding and plain figures were used. The basis for classification and presentation depended upon the type of data collected. An extensive records review was conducted owing to the SHEQ folder that the organization maintains in compliance with international standards. Comparisons were drawn from 2020 to 2023, however the analysis was done for the year 2022 versus 2021. This is complying to ISO 9001 Quality management System.

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3.9 Ethical Considerations

The researcher did not influence any outcome by conduct or unprofessional relations. The researcher explained the need for anonymity and confidentiality to all information gathered from responders. Consent was realized and the researcher guaranteed that the information is solely use for academic purposes only. Findings and recommendation to be discussed and distributed on a need-to-know basis. Responders were not mandated to insert names on the questionnaire, forced to complete questionnaire and a copy was issued to the human resources for scrutiny.

3.10 The Questionnaire

The researcher used questionnaires to collect data from both managers and non-managerial employees. According to Saunders et al (2012) a questionnaire is a method of data collection technique in which each person is asked to respond to the same set of questions in a predetermined order. Leedy (1998) defined a questionnaire as a set of questions designed to solicit information appropriate for analysis. The questionnaire had both open –ended and structured questions and opportunity to express their opinions ,section B of the questionnaire was structured in a manner that confines the respondents to previous cause of accidental discharged collected from BOI(board of inquiries or accident investigations),This enable the acquisition of both qualitative and quantitative information .Out of the questionnaire an informal interview guideline was deduced from the common causes indicated by the respondents. The researcher anticipated non return of electronically sent copies owing to pressure of work, as such the researcher then inserted a biometric drop in safe at points of exit to assure confidentiality. Is was at the mercy and courtesy of the electronics division who were engineering the product for potential clients.

3.10.1. Justification of Using a questionnaire

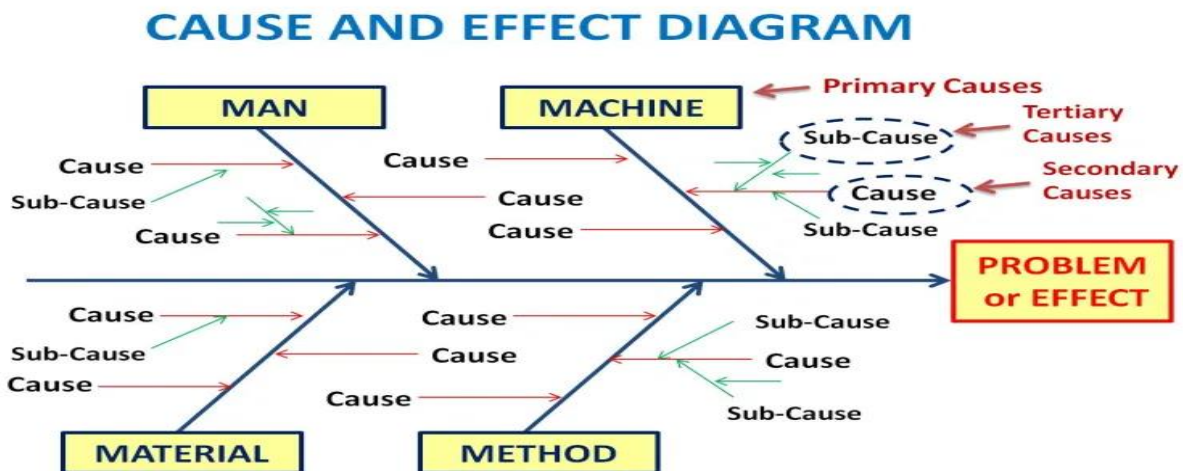
The advantage of a questionnaire is that it normally requires less skill and sensitivity to administer than in-depth interviews. The questionnaire also provided time for the respondents to write all the information required. The researcher also uses a questionnaire due to financial problems; it is relatively cheap. Because of its anonymity, a questionnaire is good to use because respondents will respond to the questions without fear. The researcher created general interview guidelines for operatives randomly selected for interview during parade points.

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3.10.2 The Ishikawa as a tool to the Questionnaire

Structure problem solving techniques or root cause analysis has and is the backbone of any sustainable organization as it hinders problems from recurring .ISO 9011 :2018 Internal Auditing standard prescribes. Securico has several methods of problem-solving techniques, chief among them being the Ishikawa diagram or Fishbone diagram as is commonly known to tackle customer complaints and other petty challenges the organizations the Five why (5 why) stairway, fault tree diagram, critical path analysis and IBRA (issue-based risk easements). In this research the author deduced possible cause from different fragments of the Fishbone and generated a questionnaire with three open ended questions,12 structure fill in and primarily the 15 possible causes were plugged onto section B pf the questionare.an option to insert other cause was availed and the articulation will be interpreted in chapter four on other underlying cause section.

Fg53.10.3



Source: [Wikipedia.org/wiki/Ishikawa](https://en.wikipedia.org/wiki/Ishikawa) accessed 20/02/2023 @ 1250hrs

The Ishikawa diagram was founded by Koru Ishikawa whose main aim was to improve product quality by avoiding mistakes, waste and shortcomings of the product realization process, it consists of five to six main branches of the fish whose subbranches may be secondary and tertiary signs and symptoms. These are Manpower, machinery, material, method, measurement and modern schools of thought have added mother nature as the environment of operation. The cause-and-effect diagram was also factored in the desk top interview sessions where certain levels of the

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population would be asked on their area of influence or control, for example, mater of manpower would be referred to the Human resources while measurement and analysis would be a senior management question as guided by the balanced score card, Kaplan and Norton (2006). As earlier indicated in chapter two, there is an alarming similarity between the Iceberg theory and the Ishikawa owing to their capacity to capture other hidden but seemingly deemed irrelevant causes of firearms accidental discharges, these methods were carefully chosen by the researcher so that the questionnaire is exhaustive of all possible causes once discussed in any internal root cause analysis mechanism.

3.10.4 Personal interviews

Qualitative data and records confirmations were ascertained through a desk top face face to face interview with respondent from different departments at different levels. The line of inquiry was appropriate to the responded. The company Board of inquiry guide was utilized so as not to deviate from their ways, interview provide rapport, enhance observation of nonverbal case Mkasi & Acheamongc (2012). Due to Covid 19 restrictions some interviews were conducted Online through teams. telephone. The classification of line of questioning and interviewee as illustrated underneath provided accuracy, objectivity, speed of execution and unquestionable reliability of data.

Table 2 .3.10.5

DEPARTMENT	INTERVIEWEE	PURPOSE OF INTERVIEW.
Farms	Security guards Supervisors & Managers	Firearms normal safety pre
Cash in transit	Security guards and controllers	
Close protection services	Supervisors & Managers	
Banking Hall operatives	Security guards	NSP and Ergonomics
SHE department	SHEQ officers SHE representatives	Firearms accidental discharges BOI (bored of inquiry
Operations and HR	Senior Management	Evaluating internal controls
Training department	Trainers	Training methods.

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executive	Senior Management	Effectiveness of controls.
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3.10. 6 Field observations

The researcher conducted a planned job observation to areas where supervision indicated according to their analysis and records were deemed to be high risk areas. and operatives who were conducting firearms handover and take over in Banks and C.I.T. the researcher made use of the Closed-circuit television to observe Normal safety precautions being done, assess the degree of twisting, sheering, holstering of firearms, carrying, dexterity change overs to other hand, clearing, tests of function, cleaning, training of firearms and storage of the firearms.

3.10.7 Records Searching and Review

The researcher perused through employee files, within employee files were training record, medical issues, firearms indemnity agreements and basic employee profiling data.it was established that there are site instruction and firearms instructions wherever a firearm is located. The researcher also investigated firearms certificates licenses, inspection schedules and a firearms accident investigation report from the Safety department. The researcher had the privilege to be granted access onto the organizations strategic SHEQ file where all data collection is done, analyzed, commented and where new preventive and corrective action plans are documented. This made the researcher propelled to present the data in a heavily analyzed way owing to the data collection port. This remarkable way of strategic reporting was attributed to the compliance of the company to ISO 9001 :2015 Quality Management System. enquires further revealed that these are subject to Auditing by the Standards Association of Zimbabwe.

3.10.8 Data analysis and presentation procedures

The data was presented in the form of tables and graphs for easy interpretation and understanding. A normal Microsoft office spread sheet organized the data. The basis for classification and presentation depended upon the type of data collected. The researcher critically analyzed all qualitative data using tables, graphs and pie charts, data from each question was analyzed and classified according to response.

3.10.9 Validity and Reliability

Information validity and reliability are essential elements of information management at Securico owing to the compliance to ISO 270001 Management of information System .despite the fact that this is an IT premise the researcher warmed up to the assertions of Thomas and Magilvly (2011) ,they suggest that questionnaires must be tested before administration and such was compiled to by running a dummy small sample frame Rowley (2012).the researcher asserted the validity of the findings through accuracy of findings ,the core relation with other records ,consistency and generation of outputs closed to the research hypothesis or assumed knowledge.(ibid.)The data extracted from the organizations central Data collection portal was deemed to be accurate for research and strategic information. The organization utilizes the same portal to trigger policies, formulate goals and objectives and for budgeting purposes. Kaplan and (Norton (2006)

3.11 Chapter Summary

The chapter dealt with a presentation of the methodology that will be used to carry out the research. The case study method was employed as the research design and two research instruments were used to collect data that is the questionnaires and structured interviews. All these methods were tested for validity and reliability. The next chapter focuses on data presentation, discussion and interpretation of research findings.

CHAPTER FOUR

DATA COLLECTION PRESENTATION AND ANALYSIS AND DISCUSSION

4.0 Introduction

This chapter is where data is presented and analyzed. This chapter is based on the responses obtained from the questionnaires. Discussions and interpretation will be made on the research findings in relation to the research objectives. Different methods of statistical data presentations such as tables and graphs are used to present the data. These methods have been selected for this purpose because they facilitate easy comparison and interpretation of the data.

Securico is certified to ISO 9001 :2015 QMS-Quality Management System which mandates the organization to carry out a performance evaluation of measurable processes and outcomes, as such in compliance with clause 9 (nine) of the standard and minutes of the Management review ,data was extracted from the Main Domain published in a read only format to all earthier compliance to ISO 27001 :2018 Management of information system ensure the reliability ,authenticity of data as it cannot be changed. The comparisons and analysis listed hereunder were captured by the Quality assurance officer on the basis that monitoring and evaluation needs to be conducted for comparison versus the prior year ,the assumption being that the condition will be the same in the next trading period ,the leadership ,the procedures and policies ,the equipment might be the same, the objectives, the infrastructure ,the training methods ,the organizational culture and such collection ensure that history is not lost as it is strong determinant of the future postulated by Sun Tzu. The Month of May 2023 was captured but not entirely relevant in the research but may point future researcher on the risks that are imminent to the organization and industry.

4.1 Trend Analysis of Firearm Accidental discharges (2020-2023)

Analysis by Period of the Year.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
2020	-	-	1	1	-	-	2	3	3	2	2	3	17
2021	0	2	1	1	-	1	-	1	-	4	3	2	15
2022	2	1	-	2	-	-	2	-	-	3	2	2	15
2023	2	1	0	1	-	-	-	-	-	-	-	-	4
TOTAL	4	4	2	5	0	1	4	4	3	9	7	7	51

SourceSHEQ Folder

The above trend analysis generally portrays that there is an increase in accidental discharges in the festive season. Interviews indicated that this is caused by anxiety and self-styled sense of security where operatives work with a round in the chamber awaiting any eventualities. Statistics indicate that from the year 2020 to the year of review ,a total of 23 accidental discharges occurred in the last quarter of the years translating to 45% of the accidental discharges.in the year under review ,the last quarter 46% comparable to 60% in the year 2021,this entails that there was a 14% decrease VPY(versus prior year)interviews from senior Management further revealed that 8 out of 15 accidental discharges emanated from Fire Arms training translating to 53% of the accidental discharges of the year under review.in 2020 6 (six)were accidental discharged during training while another 8(eight) were discharged in 2021 during training. The strategic decision to capture them in the same trend Analysis was made at the 2022 strategic planning workshop after an internal determination that training was a strong integral Key result area in their balanced score card. The first quarter of the year also has a domino effect residual of the festive season, the assumption being that robbers are searching for funds to return to South Africa after spending in the festive season. None the less, the organizations senior Management still has a zero tolerance to accidental discharges despite not meeting the targets. A philosophy or understanding was relayed that a single discharge resulting in a stakeholder fatality may take away all that securico has built in the past 25 years.

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4.2 Analysis by Zones or Area of Operation

Year	Harare	Bulawayo	Gweru	Mutare	Masvingo	Bindura	Ngezi	TOTAL
2020	8	4	-	-	1	2	-	17
2021	11	3	1	-	-	-	-	15
2022	10	3	2	-	-	-	-	15
2023	3	1						4
TOTAL								

Securico has two major offices namely Harare and Bulawayo, the scope of the study covered Bulawayo rationale by the context and close similarity with head office. Sub offices are in kwekwe, Chinhoyi, Chiredzi, Chegutu though with minimal activity. The above distribution clearly indicates that to the date 2023 from 2020 Covid 19 Era, the organization has recorded 33 accidental discharges, but the number of accidental discharges remains 15 for the year under review. Harare and Bulawayo are volatile areas due to a huge clientele base, complexity of operation and several firearms handlers. Interviews and inquiry report also pointed to at risk behavior being conducted by firearms handlers where one would work with a round in the chamber awaiting hostile confrontation. This practice was prominent among Bulawayo operatives and was later spilled to Harare due to peer pressure. The distribution, however, is proportional to the number of firearms in that area as guided by the assert register. A stagnant trend was observed between Bulawayo and Harare, which is a clear indication that operational controls remained questionable.

4.3 Analysis by Day of the Week

Year	Mon	Tue	Wed	Thu	Fri	Sat	Sun	TOTAL
2021	3	4	-	1	-	2	5	15
2022	4	4	1	-	1	3	2	15
2023	2	1	-	-	-		1	4
TOTAL	9	9	1	1	1	5	8	

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The Analysis above was conceived by comprehensive Board of inquiry reports and interviews from the SHEQ department revealed that from the year 2021 to date a total of 31 accidental discharges occurred between Mon-Tue and Sat-Sun respectively. Interviews further articulated that the prominent areas are CIT and bank operatives. 53% of the accidental discharges occurred between Monday and Tuesday while there was a 13% decrease from 46% to 33% in the year under review versus the prior year. The root cause behind such a distribution was inadequate planning by clients (not interviewed) and the CIT command center, the activities would place security under pressure thereby rushing to carry out normal safety precautions. On the weekend days, there is less supervision causing complacency and laxity among weapon handlers, this leads to accidental discharges in those periods. It was alleged by other interviewees that continuous work without rest reduces concentration levels, propels boredom and triggers indiscipline leading to fire Arm accidental discharges. Manpower shortages in the general labor market also contributed to these statistics.

4.4 Analysis by Time of the Day

Year	0600-0800Hrs	0800-1000Hrs	1000-1200Hrs	1200-1400Hrs	1400-1600Hrs	1600-1800Hrs	TOTAL
2021	4	3	1	1	-	6	15
2022	5	-	-	-	2	7	15
2023	2	-	-	-	-	2	4
TOTAL	11	3	1	1	2	15	

According to Enoka (2001), stress contributes to accidental discharges while Hendricks et al (2006) indicates that fatigue is also an integral part of accidental discharges, the beginning of the day is associated with the general mindset of getting into a hostile situation particularly CIT operatives while end of day ranging 1600Hrs-1800Hrs may be attributed to fatigue. The analysis above portrays that most accidental discharges occur, in the morning between 0600Hrs -0800Hrs since it is the time where handover and takeover is carried out, the same applies to the period between

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1600Hrs-1800hrs.in the period under review,12 out of 15 accidental discharges occurred within these time lines translation to 80% of the time lines.in 2021 60% of the where realized in those time lines which is a 14% increase versus the prior year. To date May 2023, a total of 26 have been noted in the same period and the chance of rising are imminent. Firearms handover and takeover normally takes place where one party is eager to proceed home, and sot cuts are imminent. Securico firearms training manual Vol.2 clearly states that the operative handing over should issue the ammunition first, then the magazine and then the weapon. Operatives disregard this undertaking because it is rarely supervised, hence the complacency.

4.5 Analysis by Type of Weapon

Year	303 Rifle	Tokarev (7.62)	Tokarev (9mm)	Revolver (.38SPL	Makarov (9x18mm)	P38	FN Pisto l	shotgun 12G	TOTAL
2021	2	5	-	6	1	-	-	1	15
2022	3	6	-	4	0	-	-	2	15
2023	3	1							4
TOTAL	8	12		10	1			2	

The Analysis above points that the Tokarev Russian Model 7.62 and Colt revolver have a total of 22 weapons discharged by handlers, this research established through interviews and Boards of inquiries that this is 66% comparable to 73% of the same weapons the previous year. This is simply because the weapons do not have safety features built on them and they are loaded while on duty. Interviews also revealed that some operatives deliberately work with a around the chamber for speed and engagement in tactical operations. Long barrel weapons accounted for 33% of the discharges due to their confined use at CIT and covert operations. The 7% decrease from the previous year is not plausible on the basis that there are still discharges and the number remained at 15 end of year contrary to the zero-tolerance declaration at the strategic planning workshop. The total complement of firearm is 472 as per the assert register indicating that 6% of the discharged weapons were pistols ,9% Rifles and 17% shotguns. This calculation is as a result of the distribution listed as Pistols 360 ,89 Rifles and 23 shotguns. The 9mm Chinese model Tokarev,

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the FN pistol, the shotgun and Makarov have manageable levels on account of safety features built on the physical weapons. The Lee Enfield 303 rifle would be discharged at the firearm clearing point during hand over and take over, when weapon handlers test the firearm to see if it can load and extract in a practical combat situation. This is an area of concern for senior management considering the muzzle velocity of the 303 Rifle is 720-840m/sec, 600m effective range. The 7.62 x51mm is a high caliber ammunition whose muzzle energy may increase casualties when not intercepted. Ayoob (2012) clearly propelled other researchers to consider the type of weapon in accidents related to firearms. He believes that certain trigger pressure is a cause of accidental discharges particularly in police departments.

4.6 Implications and improvement plans

The above analysis was deduced from an Ishikawa diagram or Fishbone root cause analysis system that the organization uses in trouble shooting. The preliminary recommendations deduced suggested interventions that are but not limited to procurement of firearms with safety catches, supervision of hand over and take over, continuous refresher training, festive season robbery awareness training, introduction of shift system after a cost benefit analysis, operatives to report early for duty to conduct proper hand over and takeover of duty and safety precautions to be sent using bulk SMS platforms in the organization. Recommendation to remove accidental discharge realized during training was tabled so that assessment is object and not inflated. This propels proper resource allocation, training gap analysis for trainers and staff. Another source had proposed that training discharges should not be captured completely as it sends a competency question among the trainers, Uther interview revealed that the training statistics were range work shooting not intended by the trained but due to panic and anxiety of using firearm for the first time or after a long time.

4.7 Demystifying Effectiveness of controls

ISO 45001: 2018 Occupational health and safety Management system and ISO 9001 :2015 propels organizations to review internal controls when they are not aligned with improving key performance indicators, this research was conducted because strategic and operational objectives impeding the smooth flow of operations. There is loss of time in accident investigation, board of injury, anxiety amongst potential weapon handlers to handle firearms, increase in claims from

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property damage and general lack of customer confidence in Security operations. These above statistics may be an indication that there is a remarkable reporting system, a strong checking mechanism and assert accountability. Unlike other set ups where an incident or accident may go unreported without a picking system's major set bag was deemed to be resource provision, that is availability of firearms during training thereby leaving curiosity due to minimized exposure during training. Securicor's commitment to mitigating Firearm accidental discharges is commendable evidenced by the risk's existence in the corporate top 5 risks with a grater rating.

A training budget aligned to firearms is in place, however there was questionable compliance to the training calendar a training calendar contrary to the provision of ISO9001: 2015. The 2020 DQS Audit and subsequent SAZ audits picked this anomaly. A huge capital investment is required to procure weapons only dedicated to training, increase the depth of training so that user is cognizant of the risk inherent to careless use of the weapons. The ZNA "train hard, fight easy or bleed less" mantra should be undoubtedly invoked, while all other schools that advocate for human rights during training, soft training and leniency in firearms should be dismissed with all the contempt they deserve. The dilemma lies in the fact for Securicor to remain in trade, it must pledge its subscriptions to the voluntary Principles in security and human rights renders all efforts useless. At risk behavior operatives should be dealt with in accordance with the SI 15 of 2006 or SI 72 of 2012 without prejudice. Consequences should send a signal to like-minded personnel from working with a round in the chamber. As indicated in chapter two, the Code of conduct for the private Security in Zimbabwe does not clearly articulate the consequences of accidentally discharging a firearm but penalizes operatives for illegal possession without prior training.

4.8 Data presentation from demographic variables and root cause Analysis.

The researcher issued a total of 130 questionnaires to the members of Securico Security Services .in four departments that use firearms on a frequent basis. Out of the 130 issued only 121 were returned indicating that 9 were withheld owing to the diversity of methods used to distribute them. As such for the purpose of this paper the 121 shall be considered as 93%, furthermore interview inputs and records review for the tea under review in comparison with prior year shall be taken into cognizant. In this chapter data shall be presented using plain spread sheets, pie charts, bar graphs and mostly covered to percentage form for easy interpretation. According to Mitchel et al (2012), any response rate above 50% for descriptive analysis indicates that the data is data is adequate for monitoring and evaluation. The qualitative reduction of response from various demographic variables shall be commented on beneath the presentation.

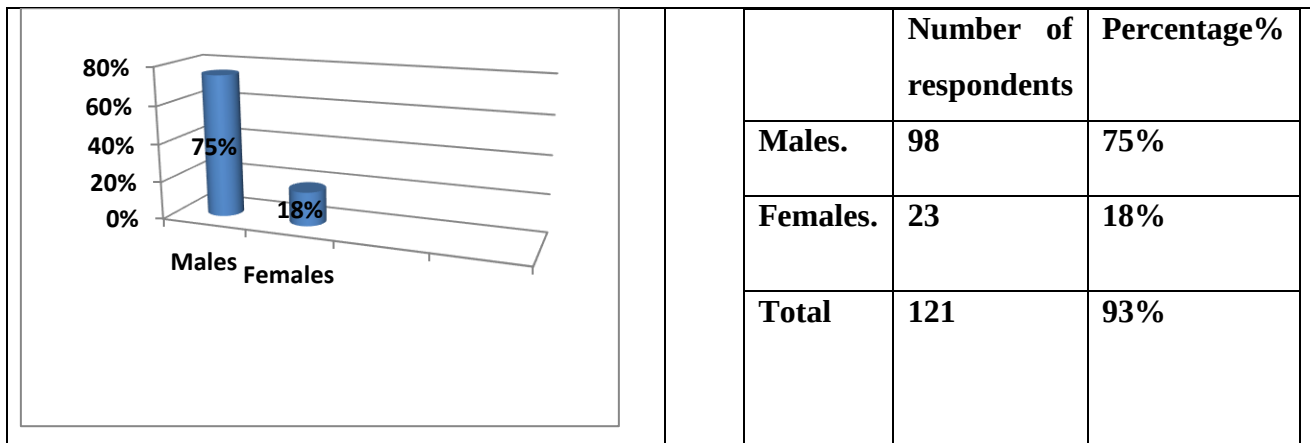
4.9 Table 4.2 Response Rate.

Questionnaire distribution.	Number of respondents	Percentage%
Number of Questionnaires issued	130	100%
Number of questionnaires returned	121	93%
Number of questionnaires not returned.	09	7%

The response rate above is attributed to the leadership style of the organization, the high response rate was attributed to willingness by the very participants top bring AD statistic down. The researchers engaged with various departments and open collection methods because some boxes were places in strategic points like toilets and the company transport facilities. Generally, the security industry is characterized by discipline and the follow orders Mantra even though this was not an order but the participation of senior management in the research propelled low level employees to taker ownership, hence the 93% response rate.

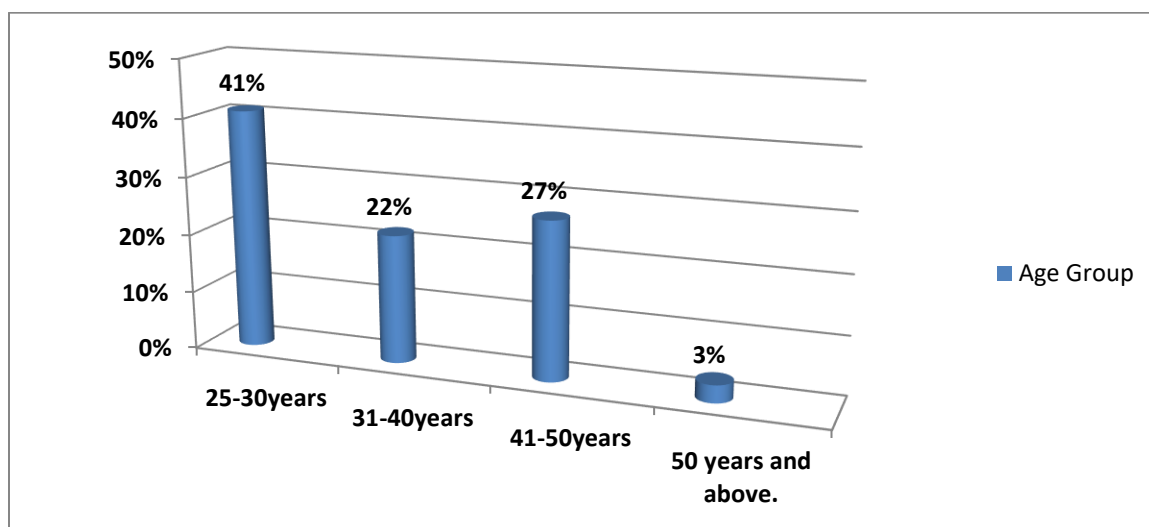
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4.10. Gender Distribution



The above gender distribution is influenced by the number of females in various departments in the sample size. The firearms training is generally a rigorous training not usually taken by will by females, Tis assertion is coupled by public and customer perception who do not feel secure when their bullion or cash is transported by females in Cash in transit services. This is following ISO9001: 2015 QMS that advocates for the recognition of customer perception. Despite the advocacy by Devine Ndhluakula to empower women, there are generally few women in weapon handling duties.

4.10 1 Respondents by Age.



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The Age distribution of responders pointed out that 41% of the sample population are between the ages 25-30. This indication is propelled by the recruitment Policy and procedure of the organization. The minimum entry requirement is 21 years while the maximum is 50 years for experts or specialized personnel. The interviews also revealed that Firearms training has an entry requirement of 24years hence the foretasted distribution. There is generally a fair distribution between 31 to 50 years because most clients do not want Bank operatives' changes and handling a firearm carries a financial allowance hence the stability in the age groups. This means that 49% are within in the age group 31 to 50 years thereby surpassing the former by 8%. records review did not determine a significant pattern of a particular age group being responsible for firearm accidental discharges.

4.10.2 Respondents by Departments

Department	No. of Respondents	Percentage.	No of Ads(-records)	
			2021	2022
Cash in Transit	66	51%	9	11
Close Protection and Covert Operations	14	11%	1	0
Banks and Industrial Sites	34	26%	5	3
Farms	7	5%	0	1
Total	121	95%	15	15

The above table depicts those other factors held constant (turnover), there was a 13% increase of accidental discharges from 60% to 73% in 2022 VPY (versus prior year). records review revealed that most of the firearms in station within the CIT department while banks and industrial set ups also poses a significant percentage. The interviews revealed that the organization did not celebrate the reduction from 5 to 3 owing to the termination of business with more than 16 firearms. The SHEQ department felt that they could have been more had there been constant use throughout the whole year. The SHEQ department also asserted that the close protection and farms section have less personnel comparable to other departments hence the comparison might not be as objective as presented by the researcher. Out of the 9 unreturned questionnaires that were not returned ,6 was from CIT while 3 were from operations industrial sites. This entails that the distribution was from.

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the begging biased to areas where most weapon handlers are. Anoka (2003) indicated that the environment plays a vital role in firearm training and discharges, Cash in transit is characterized by potentially hostile situations, high stress (Henrich et al (2006) and too much obstacle maneuvering under unfamiliar terrain, this explains why Reason (1990) postulated that skill-based maneuver and occupational ergonomics are integral parts of firearms handling.

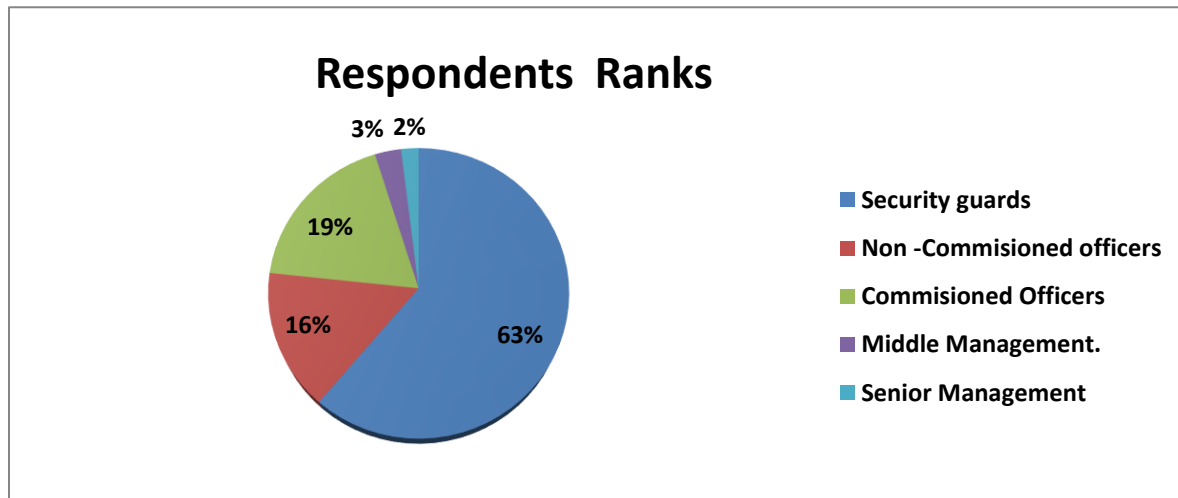
4.10.3. Positions held by respondents.

Ranks	No. of Respondents	Percentage.	Ads(records)	
			2021	2022
Security Operatives	81	63%	10	11
Non-Commissioned Officers (Lance corporal to Sergeant Major)	21	16%	5	3
Commissioned officers (inspector to Chief Security Officer)	12	09%	0	1
Middle Management (departmental Heads)	04	3%	0	0
Senior Management. (Divisional Heads)	02	2%	0	0
TOTALS	121	93%	15	15

The above table shows that 67% of the respondents are ordinary operatives who handle firearms at cash in transit department, banks and industrial sites. 17% and 10% are supervisors from the Lance corporal to Chief Security officers making an aggregate of 27%. These supervisors handle firearms when they collect Fire Arms from the 67% on daily basis for safe keeping and transportation. This means that safety precautions are conducted daily between operatives and supervisors. In the year under review, documents review indicated that a total of 11 accidental discharges emanated from operatives which was not a significant move from 10 VPY.BOI revealed that Noncommissioned officers also discharged firearms while in transit to or from operatives' sites. Some during the handover and takeover.

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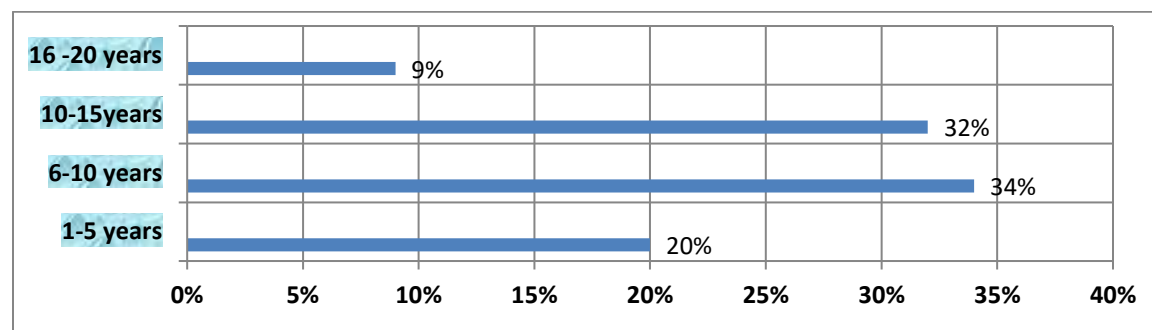
4.10.3. Respondents Positions.



4.10.4 Respondent's Experience with Firearms

Years handling Fires Arms	No of employees	Percentage	Total Ads(records)	
			2021	2022
1-5 Years	24	18%	2	1
6-10 years	44	34%	6	5
10-15 years	42	32%	5	8
16 -20 years	11	9%	2	1
	121	93%	15	15

4.10.4 Respondents Experience with Firearms



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The above distribution indicates that 66% of the weapons handlers are between 6-15 years of experience in firearms handling. These statistics are attributed to the Firearms handling allowances and the risk allowances associated with handling weapons. Interviews revealed that there is generally low turnover amongst weapon handlers. 9% amongst those between 16-20 years is attributed to the dexterity, the ergonomics and reflex agilities evaluation associated with old age. Oniel (2017) Interview revealed that the SHEQ department took into cognizant the age of participants in rigorous training, hence they would take the candidates to a psychometric evaluation. Audiometry and eyesight test before being deployed. Interviews and records revealed that a total of 11 and 13 accidental discharges were recorded from experienced firearms handlers of 6-15 years respectively. This was attributed to complacency and lack of refresher training. This assertion was realized by Hendrick et al (2008) and Enoka (2003) who attribute accidental discharges to stress, muscle contractions and ergonomic imbalances.

4.10.5 Respondents Level of Education.

Highest Level of Qualification	No. of Respondents	Percentage.	Total ADS (records)	
			2021	2022
ZJC	10	8%	1	1
O and A level	75	58%	8	9
Certificate	14	10%	3	2
Diploma	09	7%	3	2
Degree	13	10%	0	1
Total	121	93%	15	15

The above statistics are a correct reflection of the organization's recruitment and training policies. The recruitment policy solicits for an O level certificate while A level is an added advantage. 58% is a clear activation of compliance to the procedures name SHEQP015 -recruitment Procedure. The aggregate of sample from certificate to degree level makes a total of 27% and interview revealed that these are the Noncommissioned Officers to Management level. However, there was no correlation deduced aligning accidental discharges and the level of education. The research

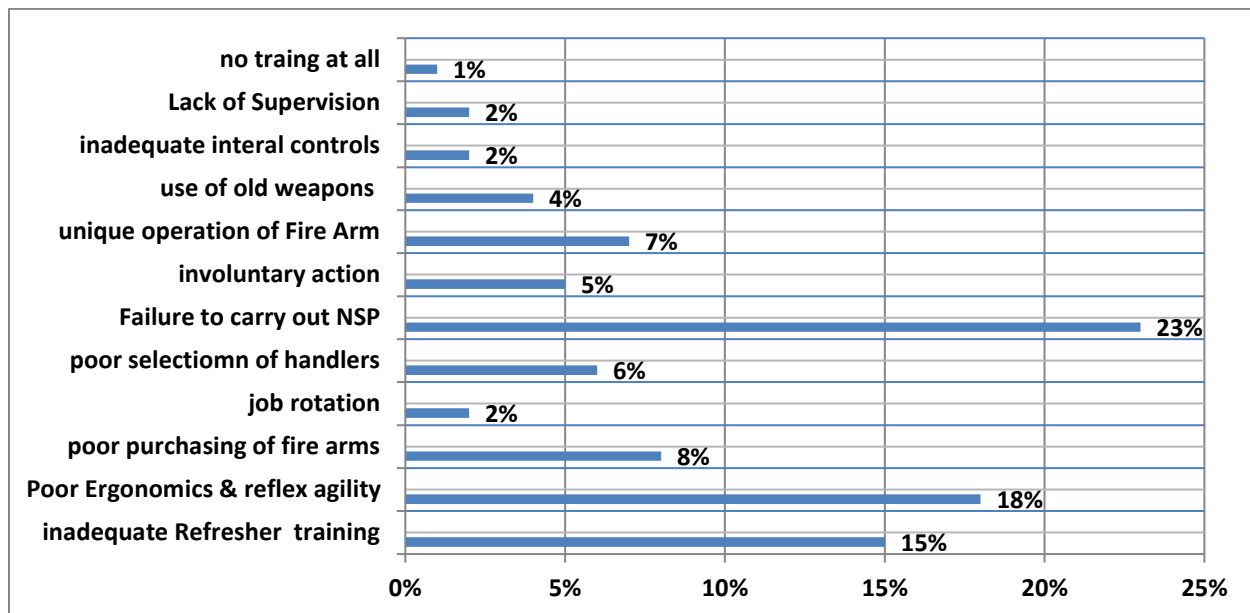
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revealed that those with O level and A level still discharge firearms despite their level of education. The above statistics are engineered by generally a high response in the operative's section. This can only be relayed to the founding of Enoka (2001) and Hendricks et al (2003), the above stated class is subjected to a stressful and risky task that impairs their judgement and increase their risk appetite, as such environment play a vital role ion risk determination. Ayoob (ibid)

4.10.6 Causes Firearms Accidental Discharges. (Questionnaire deduced)

Possible Cause	Indicator (Section B)	Percentage.
Lack of supervision	2	2%
No training at all	1	1%
Inadequate controls	3	2%
Use of old weapons	5	4%
Unique Operation of Weapon	9	7%
Involuntary Action	6	5%
Failure to carry our NSP	31	23%
Poor Selection of weapon Handler	8	6%
Job Rotation	3	2%
Poor Procurement of Firearms	10	8%
Inadequate Refresher training	20	15%
Poor ergonomics and or reflex agility	23	18%
Total	121	93%

4.10.6 Graphical illustration.



Summary of causation Findings and discussion

Firearm Normal safety precautions

The above data is an output of the issued questionnaire of 121 participants in the above-mentioned departments. 23% of the participants who are 31 of the sample group attribute the accidental discharges to failure to appropriately carry out NSP-Normal safety precautions while 18% of the participants attribute accidental discharges to poor workplace ergonomics as articulated by O'Neil (2017). Research applauded SECURICO for complying with training calendar but questioned the quality and accuracy of the training considering that only 1% attributed the accidental discharges to inadequate refresher training. Interviews with trainees indicated that unavailability of firearms during training reduced exposure of the operatives thereby creating inquisitiveness and anxiety of the handlers when they leave training sessions. Kelly (2011) and Stoner (2010) argue that without adequate training on firearms safety precautions, the problem shall prevail until change in training methods are reviewed as per the training cycle. It should be noted and brought to book that only for the purposes of this research all failures to carry out NSP are regarded as negligence by the Zimbabwean firearms Act chapter 10:09, organizations then use their internal disciplinary systems and codes of practice to exercise discretion.

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4.10.7 Negligence

As discussed in chapter, literature review, Oneill (2017) calls them unintentional discharges (UD) while the firearms Act chapter 10 :09, the legislation gives no room or opportunity for mistakes contrary to the title of this very research. The researcher used the term “Accidental discharge” on condition that the organization considers them to be accents, simply because the senior management avails a budget from training. There is a believe tat no employee takes of from his house to come and accidentally discharge a firearm knowingly well that the consequences of error are death of a person let alone dismissal from work. The statistics above may be interpreted that the 15% failure to adhere to training plans is professional negligence by management (Henrich) ,12% of use of old weapons and inappropriate purchasing of fire is also management negligence, 4% of poor supervision and inadequate controls is supervisory negligence that represents management and ultimately the general failure to carry out NSP can only be attributed to management lack of control as articulated by the Heinrichs Domino theory.in the context of their discussion ,negligence is defined as the inability to without omission follow the NSP ,holding training variable constant. whereas s in another dimension, this may be cause by inadequate training, failure to refresh firearm handlers in scheduled timelines and ultimately management lack of control and enforcement. The training methods and environment highlighted by Enkoa (2003) must be given the precision it deserves.

4.10.8 Poor ergonomics and reflex agilities

In the entire research, securico employee exhibited remarkable knowledge of the ergonomics subject evidence by a higher rating from SAZ Audit reports NSSA On-guard magazine (2017) defines ergonomics as the law of work, ergo means” work”. means Law, as such Kozanai (2017) describes ergonomics as the relationship between man and his work tools and workstation. Oniel (2017) postulates that most firearms handlers fail to articulate the sequence of events leading to the discharge of the firearm therefore creating a puzzling, aligned similarity that indicate that of the above as 5% of the 121 participants attributed accidental discharges to involuntary action. These similarities were also articulated by Charles (2000) and Enock (2003). These authors argues that accidental discharges ae triggered by muscle contractions or unexplained reflex actions. In this research a total of 23% aggregated from 18% ergonomics and 5% which indicated that handlers will not be aware of the situation or forces at play. ISO 45001:2018 occupational Health [Type here]

and safety international standards propels organizations to identify Ergonomic hazards and such situations (Moray (2005) were observed with CIT operations. Research of 34 officers were succumbed to an active shooter situation and 1% of them applied a one second pressure on the trigger section without noting hence the assertion of the above authors(ibid) Oneill (2017) and Dietz et al (1988)

4.10.9 Loss of balance and the trigger Finger-Operational ergonomics

Oneill (2017) inclines his finding to legendary assertions of Carna et al (1996). Arden et al (1983) who attribute accidental discharges to loss of balance while person awkward events in routine and non-routine activities. This research found a shocking revelation particularly in the cash management or CIT. The context of operation amongst these operatives has serious ergonomic variations that are but not limited to embarking and disembarking with a weapon, drawing and re holstering in potentially hostile situations, working with round in the chamber on escort, slippery surfaces, starts, carrying cash trunks, repetitive events, fatigue, onerousness of activity and daily or hourly safety precautions in areas where firearms are not allowed. Oniel (2017) argues that further ergonomic research should focus on startle response or response agility, weapon type, threat levels, action of others, holster type and tactical regalia. Oniel (ibid) suggests that the assertions of Hendrick et al (1983) were brought to good use. Hein et al (2006) attribute this unintentional discharge to complacency of the trigger finger while Izak (2007) postulates that such behavior is ignited by inadequate training. Oniel; further argues that tactical reactions, for example covering a fellow while on combat by trigger discharges, however in this research, the extent and scope did not consider such due to trivial chance of the crews being involved in live firing combat. Interviews revealed that certain operatives when entering potentially hostile situations insert a round in the chamber awaiting response engagement thereby aligning this research with the findings of Dietz et al (1989)

4.11. Firearms Procurement

Vanessa (2019) postulates that poor supply chain risk management goes hand in hand with inadequate needs analysis while according to Caroline (2015) ,if a company procurement risk structure is not aligned to the inherent subsidiary risks and strategy ,it is bound to be costly for the organization due to inefficiencies ,it may affect the profitability ,reputation and impede attainment

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of strategic goals. In this research interviews revealed that 7% of the participants indicated that some weapons have unique operations and are only be found at points of work but not during training. Questioned about this gap, trainers indicated that there are a few of such. Poor procurement was pegged at 8% creating an aggregate of 15% with unique operation. Lack of coordination between the training department and the procurement department was deemed to be contributing factor leading to the 27% of failing to carryout safety precautions., this anomaly is contrary to the assertions of Jennifer (2014) who advocates for a well-coordinated procurement cycle, vendor selection, negotiations and risk management initiatives. Vanessa (ibid). interviews revealed that 4% of old weapons and the 2% indicating job rotations may also be contributing factors. The Iceberg theory by Hemingway (1923) clearly portrays how trivial issues are left uninsured yet they have far -reaching consequences to the organization. inclusion and stakeholder consultation may remove the 15% from the underlying cause and focus be rendered to more cancerous problems.

4.11.1 Firearms Training

17% of the respondents clearly indicated that one of the major causes of accidental discharges is the inability of the organization to adhere to the training calendar let alone the questionable training standards. The general observation that accidental discharges can occur during training was a clear indication that a gap needs to be sealed as per the specification of the needs identified. Armstrong (2009).in this research, Assertions by Geranial George Paton and O'Neil (2015) still stand. Soldiers need to train hard, fight easy and bleed less in combat, the organization employs former Police and Military personnel to conduct training disregarding the need to train those veterans in commercial firearms. Interviews revealed that the trainer gets to use their experience to understand the weapons, hence the discharges and questionable delivery unto the trainees. The operational ergonomics should be aligned with combat skills, movements, twisting, sheering, confined spaces and tactical regalia might require improvement. Further enquiries revealed that there was a shortage of holsters causing the trigger finger to enter the trigger house during a draw or a stressfully and potentially hostile situation .Ayoooh (2012).the training environment should not be too close to personnel ,administration offices of in areas where interested stakeholders may interfere to compromise the training standards ,this was alluded by Enoka (2003) who argues that the training environment is poor significant importance in imparting knowledge.

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4.11.2 Psychometrics and Handler Selection

According to Armstrong (2009) selection is a continuous exercise that seeks to place the best candidate for a task. In the above graphical illustration 6% of the respondents felt that some handlers are poorly selected owing to the quasi military set up characterizing the sample group indicated that supervisor's may trigger a rotation without considering cognitive ability evaluation. Industrial Psychologists Memory Nguwi believe that the propensity to morally disengage or fail to cope with emerging stress can be scientifically determined by a psychometric assessment's. Industry is generally swamped with industrial complaints treating long hours hence the Human resources policies Armstrong 2009) should be aligned with the provisions of ISO 45001. The researcher is inclined to believe Mental health issues should be taken to account in firearms handler selection., generally, obstacle maneuvering, and tactics pose as significant risk to brewing accidental discharges owing to the awkward postures, eyes on target drill, speed reloads, evasive drills, Room clearing and stoppage drills. The general lack of muscle coordination with the brain and stress levels is bound to put the weapon handler off balance as highlighted by Dietz et al (1989).

4.11.3 Other Underlying Causes and implications of study

The researcher managed to identify other residual underlying causes that are but not limited to High staff turnover steered by the Covid-19 Pandemic, this made the organization lose experienced staff leaving new and inexperienced employees. The time allocation for refresher training was deemed to be inadequate and not proportional to the initial training. The initial training is two weeks training and refresher training is 2 days. This is due to cost implications. Varying training methods also contributed, mental health issues that were not picked during attestation, continuous employment or that develop as time goes on, unique operation of weapons, it was determined that amongst the 89 rifles, 11 of them are an Irikasa model with a magazine hence the causes of accidental discharges. The introduction of new weapons from Turkey, China and other countries brought in a new dimension of risks. Out of the 800 handlers on the data base, the majority are new employees hence the compromised experience, some are in active in weapons handling and due to high staff turnover crippling the industry, inexperienced firearms handler become active without a refresher training. The Iceberg Theory and the Ishikawa diagram discussed in chapter two was explicit that there are other tributaries or unseen, forgotten signs and symptoms that graduate into

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accidents, hence they must be granted the attention they deserve despite the few statistics depicted by the graph above.

4.11.4Chapter Summary

This chapter focused on data collection, analysis and interpretation of research findings. A comparison was checked with previous researchers so that future research would focus on other aspects and link it with this paper. The initial assessment was based on internal issues like analysis by department, time of the day, type of weapon. Records outputs were plugged onto the demographic c variable for better articulation.

CHAPTER FIVE –CONCLUSION, DISCUSSION AND RECCOMENDATIONS

5.1 INTRODUCTION

This chapter is concerned with summary of findings from chapter four. General conclusions are also included in this chapter. The chapter shall refer to discussions in chapter three as aligned to findings in chapter four. The discussion is based on the data herein and aligned to the findings of O'Neil (2017) also gives recommendations on the research topic under study. It should be brought to record that the recommendations despite their numerousness are not prescriptive but are the authors assertion backed by experience, involvement in structured root cause analysis and the desire for a safe and decent work.

5.2 CONCLUSION.

From the statistical analysis in chapter four .it was established that the main cause of firearms accidental discharges in failure by operatives to execute NSP as prior taught or expressed on the work instructions and training guidelines, however this was due to an elongated period of not handling firearms before handling the. Fire ar., Shannon et al (2002) propounded that high exposure of accidental discharges is found on personnel who spend several hours in possession of Firearms comparable to those who have handled for a short period of time. The security industry is generally associated with long hours due to the complexity of tasks, sensitivity of work environments and inadequate legislation. Oniel (2017) findings that most findings are triggered by involuntary contractions were revealed by this research because some interviewees declared that they were not aware of how it happens. Failure to conduct correct NSP was attributed to handling multiple models due to an uncoordinated procurement policy. 23% attributed to involuntary action, Charles (2000) was attributed to poor ergonomics which is the next research area for the researcher. Questionable training standards and personnel were a major cause accounting for 15%of the respondents. Where a training gap is not completed by the training session, the problems that propelled the training will always recur. Armstrong (2009) argues that there should be evaluation of the trained, the trainers, the training methods and subsequently a follow through of the desire output.

It is evident that the fishbone or Ishikawa diagram and the iceberg theory are the best methods in carry out a root cause Analysis.ISO9001 QMS .these methods are supreme in the since that hey [Type here]

leave no stone unturned ,all tributaries ,minor signs and systems are exhausted in the tributaries of the fish or beneath the sea, this entails that ignoring these will be a collective decision but they will be known or history would have recorded their existence. conclusions drawn to logically conclude accident causation in this research is closely attributed to poor ergonomics associated with loss of balance, failure to carry out NSP as prior taught, poor procurement of weapons and failure to religiously follow refresher course training schedule. The ABC taxonomy had a trivial bearing to this research owing the low chances of security being involved in combat situations. This may be attributed to the risk profile of the country comparable to South African environment, this entails that further research in startle response may yield a low response rate due to low exposure raters. The findings of this research are closely aligned to the findings of O'Neil et Al (2017) research on applied Ergonomics relating to unintentional discharges. Professional and individual negligence can only be dealt with by changing the culture in which the organization perceives accidents, from a legal perspective or a corrective action perspective. Uther attention should also be drawn to the fact that the theories of startle response and ABC taxonomy may be not plainly apply to the context of this research is that ,the types of weapons used in the organization or rather in Zimbabwe need to be cocked or the use need to move the working parts backwards and then forward before firing ,the contrary is found in Canadas ,the United states and other countries where a round in the chamber is like a drill or a common phenomenon.

5.3 RECOMMENDATIONS

This part of the project outlines what the researcher advocates to be done after the study. The following recommendations were drawn up by the researcher in the context of the research findings, the data presented, the field observations, the records review and the researcher's general appreciation of firearms. The researcher indemnifies himself from any mishap emanating from this research simply because this research was conducted in one organization and the recommendations may or may not apply to other organizations.

- ❖ Securico Security service might consider formulation a Firearms policy since this subject is the highest ranking in their risk profile. This will enhance Senior management [Type here]

commitment and acquire buy in from the Board of directors, they might also consider introducing a Board member with Police or military background so that there is appreciation of the risk at high or strategic level.

- ❖ Line management or supervision might make use of a skills card in conjunction with a training matrix so that Firearms handlers without valid refresher course training are controlled by a roistering system hence impeding the deployment of such individual. The system can be factored into their ERP-Enterprise resource planning. (Easy roaster) and Biometric access control systems.
- ❖ The company might consider investing in ammunition, so that Firearms refresher courses are done quarterly instead of Biannually as per the current system, it is imperative that all weapons refresher training are conducted by Competent trainers for at least three days whereas the initial training period should be revised to at least 15 continuous days. Each squad has at least 21 trainees for easy evaluation.
- ❖ The company might consider improving relation with the ZNA and ZRP training school so that there acquire technical and psychological advice in curriculum development, furthermore, they might consider renting shooting ranges in outside hare offices to reduce the cost of transporting and accommodating trainees from all over the country or alternatively outsource the training completely.
- ❖ The organization might consider engaging NSSA to conduct a workplace and activity ergonomics survey so that a safety program is put in place to curb ergonomics problems.
- ❖ Securico Security Services might consider investing in one type of firearms so that there are no variations in operation; it enhances uniformity practically during training, handover and takeover procedures and general weapon awareness. The organization consider shifting from tokarevs to moder weapons like the Kanik Pistol from Turkey.
- ❖ Conduct an issue-based risk assessment in pursuit of phasing of old firearms like Revolvers without safety devices, weapons with parts that are rarely found in the market and weapons which imperil a firearm handler by placing them at a tactical discharge because of their unique operating mechanisms.
- ❖ Avail PPE (Bullet proof vest for operatives in tactical operations to reduce impact in case of an accidental discharge.

- ❖ Securico Security Services might consider reviewing its recruitment policies and procedures to elevate the competences and enhance training since trainers will be dealing with participants with a reasonable level of education.
- ❖ The company supervision team might consider conducting planned job observation regarding Firearms handling, hand over and take over processes.
- ❖ A psychometric evaluation may be needed to check for mental health issues particularly post Covid-19 Era which was characterized by substance abuse.
- ❖ Procurement of weapons with dexterity features so that left-handed personnel can use them.
- ❖ The Physical weapon should be brought to the Board of inquiry to ascertain its operational den uniqueness to other weapons.
- ❖ Firearms handlers who have not been handling weapons for about 6 months should attend refresher training before being deployed at an active fore arms post.
- ❖ Incentivize and provide Awards for departments who recorded and are still recording zero accidental discharges, also provide certificate excellence for operatives who handle weapons for a long time without a single discharge.
- ❖ The legislature to review the firearms Act chapter 10:09 to clearly spell out the Fire Ars safety precautions other than leaving this crucial section to Police organizations and private training standards.
- ❖ Conduct wellness programs or create a therapy session for operatives who survive a near hit situation, on another note improve general working hours and conditions for secure operatives and intercept turnover.
- ❖ Conduct hostile confrontation simulation and carry out an individual assessment of startle reaction and stress tolerance of the weapon handler. The training manual may need to be reviewed to incorporate glaring issues picked and indicated by the researcher.
- ❖ Conduct range shooting at planned intervals so as increase exposure to different type of firearms.
- ❖ The organization may consider setting up an ammunition control and unit count system that intercepts all accidental discharges that may escape the formal data capturing radar. This should be coupled by a disciplinary system that is not punitive I nature bur corrective so that the organization captures the tacit knowledge.

- ❖ Emphasis on keeping weapon muzzle direction outside the path of property or stakeholders may reduce legal wrangles and injuries to stakeholders.
- ❖ The organization may consider awarding departments who meet a zero target accidental discharges and provide resources for refresher training for those whose statistics will be on the increase.

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APPENDIX 1. QUESTIONNAIRE FOR FIREARMS HANDHLERS

My name is Cleopas Moyo and am a student at Bindura University of Science Education with the department of intelligence and Security Studies I am pursuing a bachelor's degree in Police and Security Studies. The purpose of this questionnaire is to obtain views of Firearms Handlers at Securico Security regarding the underlying causes of accidental Firearms accidental discharges. Responders are kindly advised that all intelligence gathered from this questionnaire is solely for academic purposes, as such all responders are not mandated to write their name. Please Tick the correct answer where a choice is given and fill in the provided blanks spaces where necessary.

Section A: ABOUT COMPANY

Name.....(optional)

Department.....

Rank.....

Area

Section B: BIO DATA

1. Sex Male ☐ Female ☐

2. Age 25-30years ☐ 31-40years ☐ 41-50years ☐ 51+years ☐

3. Level of Education ZJC ☐ O Level ☐ A level ☐ Degree ☐

4. Experience in Firearms handling years ☐ ☐ months

5. Operating Shift Day ☐ Night ☐

6. Do you know what a Firearm accidental discharge is Yes ☐ No ☐

7. Are you a trained Firearm Handler Yes ☐ No ☐

8. Do you wish to be re-trained in Firearms Handling Yes ☐ No ☐

9. Highest level of qualification

ZJC ☐ O level ☐ A level ☐ Certificate ☐ Diploma ☐ Degree ☐

[Type here]

10. State any three disadvantages or risks of a Firearm accidental Discharge to your organization.....

11. What do you think should be done to eradicate or reduce Firearms accidental discharges in your organization.....

.....

12. Do you know what NSP Is (Normal Safety Precautions means? If Yes state any for essential stages of Firearms Normal Safety Precautions.....

.....

13.How do you perceive the depth and quality of training you are receiving or received in Firearms Handling.....

14. What is the level of Management commitment in the area of Firearms Handling.....

.....

15. State Any three main causes of firearms accidental Discharges in your Department.

.....

.....

16. How do you perceive the supervision of Firearms in your organization/Department.....

.....

...

17. Are your Firearms adequately serviced from Time to time? if Yes, Specify frequency.....

.....

[Type here]

18. When was your last refresher course training you participated in and was the training period adequate to cover the course content.....

.....

19. What is the frequency of Firearms refresher training.....

20. How many models of weapons did you trained in.(number).....

21 What other suggestions or recommendations can you present to improve Firearms handling and reduce accidental charges in your organization.....

.....

Thank you For Your Participation in, this section, please proceed.

SECTION B: REASEARCH QUESTIONS

Q. Which one of these is a dominant cause of firearms accidental discharges in your organization?

NB*(Consider the history of previous accidental discharges backdating from attestation date to Date. Place a tick what you deem is a cause(yes) and an X where you feel it is not a cause.)

SR	POSSIBLE CAUSE	Yes	No
1.	Lack of Firearms handler's supervision		
2.	Inadequate and vague instructions and procedures.		
3.	Use of old and defective Firearms and ammunition.		
4.	The handler was not trained completely.		
5.	Failure to carry out correct firearms safety precautions during hand over and take over		
6.	Lengthy period before Conducting firearms refresher training.		
7.	Obsolete or in inadequate Firearms selection policies and procedures.		
8.	Purchasing of weapons with unique operations.		
9.	Inadequate firearms inspections, cleaning and oiling.		
10	Job rotation by supervision thereby exposing operatives to new firearms they were not trained in. (without safety devices)		
11.	Inadequate initial and refresher training in firearms Handling.		
12.	No involvement of firearms handlers in root cause analysis of previous firearms accidental discharges.		
13	No appreciation of firearms laws and consequences of breaching safety guidelines to self and the organization.		
14	Complacency, inattentiveness cause by prolonged handling in the course of duty.		
15	Poor ergonomics (activity versus involuntary reflex agilities)		
16	Others (specify).....		

Thank you For Your Participation

[Type here]

Interview guideline

CIT, Bank, Industrial and Covert Operatives		
	Under what conditions or circumstances do you think Ads occur?	
	Is the training content and number of training days appropriate for the tasks at hand?	
	Do you handle different models of firearms, and did you use them during training?	
	Can you articulate the NSP even without a weapon in your hands?	
	Do your routine duties involve serious ergonomic challenges. What and where are they?	
	What are the risks of unintentionally discharging a firearm?	
	Have you accidentally discharged a Firearm before?	
	Are your weapons in good shape and serviceable?	
The SHEQ Department Team		
	Have you ever analyzed accidental discharge causation by day of the week, time, type of weapon, location, officer behavior, conditions under which they are discharged?	
	Have ever carried out an Ergonomics threat assessment for weapon handlers?	
	Do you think current controls are adequate to reduce or eradicate accidental discharges?	
	Are safety levers important in the firearms procured by the company?	
Human Resources -Training Department		
	Why and how do firearms get discharged during training?	
	Are Firearms trainers competent enough to train commercial firearms.?	
	Does ergonomics, loss balance, stress and muscle contraction play a role in ADS?	
	Are firearms trainers and the SHEQ department involved in firearms procurement.?	
	Do you think safety lever are important in procurement Firearms	
	Where is the organization lagging on NSP enforcement and what can be done?	
Middle to Senior Management		
	Are current controls adequate to reduce or eliminate accidental discharges?	
	Why are operatives and supervisors shunning away from conducting NSP? (leading)	
	Are the current, past statistics indicating effectiveness of controls, if not, why?	
	Are there consequences for accidentally discharging a firearm?	
	What are the 2023 strategies agreed to reduce accidental discharges?	

[Type here]

