On Track – Off Track:
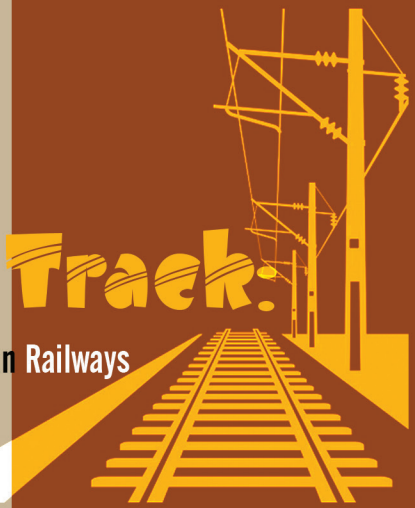
An Explorative Study on Private Security in South African Railways

PSiRA
Private Security Industry Regulatory Authority

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Executive summary

The Private Security Industry Regulatory Authority (PSiRA) is the designated regulator for the private security industry in South Africa, which includes railway security. Needless to say, railway systems play an important role in South Africa. Passenger railway systems such as Passenger Rail Agency of South Africa (PRASA) trains and Metrorail trains are the cheapest mode of transport for many people in the country. Private security guards are deployed on passenger railway systems to ensure the safety and security of commuters. In addition to the abovementioned railway companies, there is also Gautrain Management Agency (Gautrain), which operates only in Gauteng. PSiRA is not the only regulator within rail, the Railway Safety Regulator (RSR) also operates in this sector.

The manner in which railway systems operate in South Africa differs from operator to operator, thus the security personnel required and security measures in place will vary. For instance, crime statistics and location of the railway station will dictate the number of guards to be stationed on-board the moving train. The open infrastructure of railways systems raises a number of issues, including safety- and security-related incidents and criminal activities.

One of the main issues that came from the findings was the issue of training. Stakeholders felt that the rail environment is a different environment from other security sectors and should be treated as a specialised field. Further, because the nature of and risks associated with this sector, a security guard who has undergone general training, which is not specific to rail security, cannot be expected to know how to react or conduct themselves when confronted with the realities of the sector and the challenge of having to prevent criminal activities. Consequently, stakeholders agreed that security guards should undergo rail-specific training.

Although a number of issues and challenges exist in the railway sector, they are related to criminal activities and poor service delivery, not directly to private railway security.

Acronyms

ISPS Code	**International Ship and Port Facility Security Code**
KZN	KwaZulu-Natal
MoU	Memorandum of understanding
NIP	National Infrastructure Plan
PRASA	Passenger Rail Agency of South Africa
PSiRA	Private Security Industry Regulatory Authority
PSiR Act	Private Security Industry Regulation Act 2001
RSR	Railway Safety Regulator
RSR Act	Railway Safety Regulator (RSR) Act No 16 of 2002
SAPS	South African Police Service
SAR&H	South African Railways and Harbours
SATS	South African Transport Services

1.   Introduction

Railways comprise of large infrastructures and are also the primary mode of transport in many countries.[1] Railways are not limited to facilitating commuting of passengers but includes freight through the carriage of goods, coal, wood and cars, among other things. Railway infrastructure is valuable to a plethora of needs and requires constant protection or security of people and property. Security breaches and vandalism in railway stations as well as on trains indicate a problem surrounding the provision of railway security services. Private security services in the railway environment are regulated by the Private Security Industry Regulations Act 56 of 2001 (PSiR Act).[2] The implementation of the PSiR Act falls under the auspices of the Private Security Industry Regulatory Authority (PSiRA).

PSiRA's objectives are informed by Section 3 of the PSiR Act, which provides that the Authority's prime objective is to 'regulate the private security industry in the public and national interest and the interest of the private security industry itself'.[3] One way of ensuring that the objectives of the Authority are met is by identifying gaps that may exist within the regulations of the Authority. This is supported by Section 4(d) of the PSiR Act, which provides that the Authority must undertake ongoing studies and investigations on the rendering and practices of security services to identify shortcomings in the PSiR Act, among other things.

The Authority is mandated to regulate all security service providers,[4] which include private security services in the railway environment. This study, therefore, contributes to ensuring effective regulation of the private railway security in South Africa. Firstly, the report lays down the background to the study highlighting some of the security challenges faced by South African railways. Secondly, the report will present the research methodology of the study. Thirdly, the report reviews literature on railway security tracing the history and the current dynamics within the railway environment. Fourthly, the report presents research findings as guided by the research objectives. The report ends with recommendations as informed by the research findings and a conclusion.

2.   Background to the Study

Over the past few years, the railway system in South Africa has experienced several safety incidents. Challenges in the railway sector include overcrowding in trains, cable theft, vandalism, poor railway infrastructure, burning of trains, damage to fences of train stations, trespassing, theft and a general failure of security personnel to patrol the entire railway security system, including trains. There has been a steep rise in the number of fatalities and injuries on railways, which is cause for concern. For instance, it is recorded that the Metrorail in Cape Town has lost over R520 million from damages caused by arson.[5] Fatalities and injuries can be attributed to one or more of the above issues.

There have also been a number of allegations in the media about the deployment of security personnel on railways. In 2018, it was recorded that some rail security personnel were not registered with PSiRA, two reasons being that some employees have criminal records.[6] For others, it was because they had not received their PSiRA certificates even though they had acquired the accredited training.[7]

Railway has been a means of transportation for both passengers and freight since 1825.[8] Rail also plays a vital role in transporting people from all spheres and ensuring growth of the economy. During operations, railway systems need to be a safe mode of transportation. High levels of rail-based injury and violence make the safety and security questionable.[9] Railway security remains a problem in the country as crime related incidences continue to unfold in railway stations. This phenomenon prompted the need for the Authority to undertake this study and identify the active role PSiRA can have in private railway security.

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1   N Jain, J Kumawat, S Maheshwari & K Sharma. 'Railway security system based on wireless sensor networks: State of the art' (2014) 96(25) International Journal of Computer Applications 32-35.
2   PSiR Act, 2001.
3   As above.
4   J Kole. 'How effectively is the Private Security Industry Regulatory Authority (PSIRA) regulating the security industry in South Africa?' (2009) 2 Acta Criminologica: Southern African Journal of Criminology 154-168.
    Also available at: https://hdl.handle.net/10520/EJC28593.
5   C Geach. 'Arson attacks cost Metrorail R520 million in damages.' For more information, see https://www.iol.co.za/weekend-argus/news/arson-attacks-cost-metrorail-r520-million-in-damages-19212539 (accessed 30 July 2019).
6   For more information, see https://www.saferspaces.org.za/blog/entry/the-state-of-commuter-safety-in-metrorail (accessed 26 July 2019).
7   As above.
8   A Carlson, D Frincke & M Laude. 'Railway security issues: A survey of developing railway technology. In Proceedings of the International Conference on Computer, Communications and Control Technologies.' Vol 1(2003) 1- 6.
9   LB Lerer & R Matzopoulos. 'Meeting the challenge of railway injury in a South African city.' The Lancet 348 (1996) 664-666.

3. Research Methodology

The overarching aim of the study was to establish the effectiveness or otherwise of the regulation of private security at South Africa's railways. Research objectives were to:

- Establish whether PSiRA inspections are conducted in railway security and if so, whether they are effective;
- Determine the level of training required in railway security;
- Determine what security equipment is used in railway security; and
- Establish the roles played by private security in the railway domain.

The hypothesis of the study is as follows: in executing its functions, PSiRA has achieved its objective to effectively regulate private security at railways.

The research questions of this study are as follows:

- Are PSiRA inspections conducted within railway security?
- What level of training is required in railway security?
- Which security equipment is used in railway security?
- What role does private security play in the railway sector?

For purposes of this study, the explanatory research design was utilised. The rationale for this research design was largely informed by fact that from the perspective of the Authority, the problem associated with railway security, had not been researched. The explanatory research design is appropriate for studies with high levels of uncertainty and not much knowledge about the subject.[10] The need to generate knowledge on this subject cannot be gainsaid.

The study applied the qualitative research method, which is usually the preferred method for studying a phenomenon as it unfolds in real-world situations without any manipulation, and which allows researchers to study selected issues in depth, openness and detail.[11] The qualitative research method allowed the research participants to share their lived experiences, which produced data that would assist the Authority to determine the security dynamics of the railway sector and to indicate how the regulation of railways could be enhanced. It further assisted the researchers to identify other railway security stakeholders with which the Authority could engage to ensure compliance.

In the data collection phase, semi-structured interviews were conducted. This research tool or method was preferred because it provided the researchers with the flexibility to manoeuvre and ask more questions to gain more information on railway security. By their nature, the semi-structured interviews facilitated a guided structured conversation between the researchers and the participants and also enabled the researchers to probe for additional details.[12] The probing technique was used to uncover important information or to facilitate a robust discussion on the subject.[13] Through probing, the researchers were also able to better understand the dynamics of private security in the railway environment.

Due to the large population that exists in the railway sector, a sample was required for data collection. Sampling is the selection of a subset of individuals from a statistical population to deduce characteristics of the whole population.[14] For this study, purposive sampling was used. By its nature, purposive sampling is a nonprobability sampling method, which is based on the characteristics of a population and the objective of the study.[15]

10 B van Wyk, n.d. Research designs and methods. University of the Western Cape, For more information see: http://www.academia.edu/download/43226041/Research_and_Design_II. (accessed 17 July 2019).

11 K Durkheim, D Painter & M Terre Blanche. Research in practice: Applied methods for social sciences (2nd ed.) (2006). South Africa: University of Cape Town Press (Pty) Ltd.
12 For more information www.statisticssolutions.com., 2018. What is Trustworthiness in Qualitative Research?, Available at https://www.statisticssolutions.com/what-is-trustworthiness-in-qualitative-research/ (accessed 20 July 2019).
13 As above.
14 For more information see: A Crossman. n.d. Understanding purposive sampling. Available at: https://www.thoughtco.com/purposive-sampling-3026727 accessed 20 July 2019.
15 Crossman, A., n.d. Understanding purposive sampling. Available at: https://www.thoughtco.com/purposive-sampling-3026727 accessed 20 July 2019.

The sample for the study included participants from the Railway Safety Regulator (RSR). The sample also consisted of security managers and training managers from the Passenger Rail Agency of South Africa (PRASA) and the Gautrain. To gain insights from a broader cross-section of rail security systems in South Africa, the study was conducted in Gauteng, Eastern Cape, Western Cape and KwaZulu-Natal. It must be noted that Metrorail, in particular, operates in these four provinces, and gaining perspectives from these provinces was critical. In Gauteng there is also the Gautrain, the first high speed train in Africa - an understanding of its security operations was essential for this study.

A key limitation encountered while conducting the study was the low response rate to participate (from the sampled participants). One of the main reasons for this low response rate was arguably partly due to the sensitivity surrounding rail security. This information, it was argued, could not be made public knowledge as it was felt that it would greatly compromise train operators. Private train owners and freight companies were approached but they also were not keen to take part, arguing they did not use of contract security officers but used security equipment, information on which they did not want to divulge.

4.   Literature Review

According to Terre Blanch et al, literature review is the 'identification and analysis or review of literature and information related to what is intended to be, or has been, studied'.[16] By collecting and compiling literature, the researcher is able to identify gaps within literature which enables them to formulate a research approach to fill the knowledge gaps. The literature review gives the researcher insights on what other authors say about the topic, enabling him or her to identify relationships or patterns among literatures, which in turn provide a background to a researcher's investigation.[17] Having a solid background is vital for any research study, as it shows that the study is scientific, making it hard to question its validity.

The following literature review looks at the history and current status of the railway systems. Further, this section of the report highlights some of the challenges and training standards in private railway security. Risks and security threats to the railway system in South Africa and other countries are mentioned, as are challenges in relation to the use of technology, training and the regulation of railway security in South Africa. The literature on this phenomenon says very little about the South African private railway security, with more mention of safety. Issues around this topic seem to steer more to the direction of safety related issues within the railway environment. It could be argued that safety and security can be interlinked.

4.1.   The history and current status of railway in South Africa

According to the literature, one Mr Watson, a banker and merchant, envisioned the establishment of the first railway line in Cape Town, which was known as the Cape Colony during colonial times.[18] The motivation for establishing a railway line was to bring economic growth to the flourishing Cape Colony. However, this vision never materialised as it was not supported by the Attorney General of that time, Honourable William Porter. In 1860, the Natal Railway Company had the privilege of laying the first running railway in South Africa.[19] The railway line was roughly three kilometres starting from Market Square in Cape Town to the Point in the harbour area, a train ride that was roughly five minutes. Over the years, as trade and industry grew, so did the railway line, as there was a need to transport goods and people.[20] It was in 1861 that the Cape Colony also established its own railway line, which would later expand due to developments and discoveries of minerals in the interior of the country.[21]

The discovery of diamonds in Kimberley in 1869 created an urgent need to create a cheaper, quicker mode of transport for the public and goods.[22] Oxen and horses were no longer sufficient. To exploit the newly discovered mineral wealth called for a vastly more efficient mass transport mode, with rail transport being the obvious and only choice.[23] In 1885, Cape Town's railway line was successfully linked with Kimberley, with other lines extending from Port Elizabeth and East London to the interior for exportation.[25] With more and more discoveries of minerals in the interior and a rising need to export, the railway network expanded to transport goods on a large scale and also commuters.

16 Durkheim (n 11 above).
17 For more information see: QUT Cite Write., 2017. Writing a literature review https://www.citewrite.qut.edu.au/write/litreview.jsp (accessed19 July 2019).
18 For more information see: Transnet, (n.d). Railway Country 150 Years of Rail in South Africa, Available at http://www.transnetfreightrail-tfr.net/Heritage/150years/150YearsRail.
     pdf (accessed 20 July 2019).
19 As above.
20 As above.
21 For more information see: C Kleingeld, 2003. A South African Railway History, Available at http://mysite.mweb.co.za/residents/grela/transnet.html (accessed 21 July 2019).
22 Transnet (n 18 above).
23 As above.
24 As above.
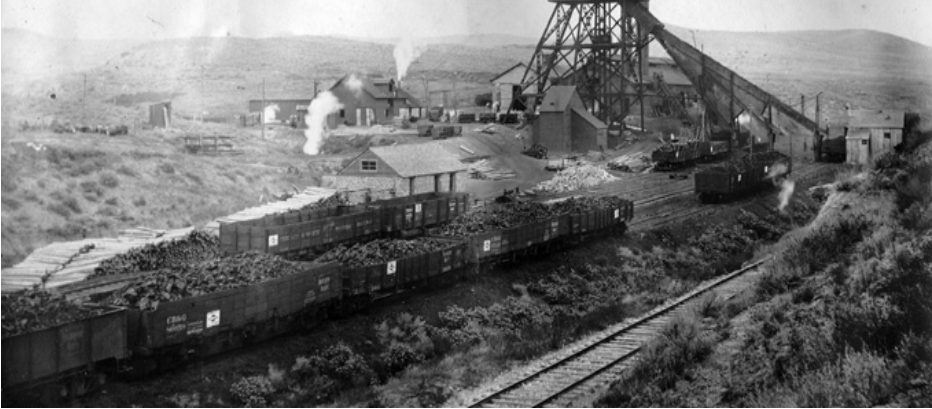
In 1910, the Cape Colony, Natal, Orange Free State and South African Republic became the Union of South Africa with one government. The expansion of the railway line was in fact the connection of railway lines among the different colonies. The political union was able to put an end to the disagreements between the Republicans and Colonists as to who owned access to railways and harbours.[25] The fighting between these groups also brought about much damage to the railway infrastructure already built during the Anglo-Boer wars.[26] Through the Union, the South African Railways and Harbours (SAR&H) came into being as one organisation to serve the whole country, leading to the establishment of the South African Railways and Harbours administration.[27] Later, SAR&H became the South African Transport Services (SATS), with the vision of becoming a private entity ultimately resulting in the birth of Transnet SOC (state-owned company) Ltd.[28]

South Africa prides itself on having the most developed railway line on the African continent, with all cities and nearly every town connected by rail links.[29] Some of the world's first railway achievements were from South Africa.[30] In spite of these achievements, the railway lines in South Africa have not been used to full capacity. Of the 734 million tons of freight moved in South Africa during 2013, 71% was moved by road, although the railways made up 80% of Africa's infrastructure.[31] In 2012, Transnet launched its market development strategy to rejuvenate the country's ports, rail and pipelines infrastructure through a seven-year R300 billion ($33.82 billion) investment scheme.[32] With the majority of the investment reserved for the railways, it is projected that rail volumes will increase from approximately 200 million tons to 350 million tons.[33]

Through the projected growth of cargo, the government has established the National Infrastructure Plan (NIP), with R4.3 trillion rand ($407 billion) put towards new infrastructure and upgrade of existent networks across a vast array of sectors.[34] It is not only growth of freight that is expected, but growth in commuter railway services. As highlighted in the previous text, the railway network has not been used to full potential, particularly the commuter railways. Much criticism has been levelled at railway authorities for allowing the general deterioration and decline of commuter and passenger services.[35] PRASA is the government's agency efforts to transform public transport, with railway services forming the backbone of the network.[36] PRASA signed a contract with Gibela, tasking it with replacing the ageing metro fleet with a modern service.[37] In the next 10 years, Gibela has been tasked to deliver 600 modern commuter passenger trains into the South African rail network.

In addition to the transformation of railway commuter services in South Africa, the country also prides itself on having the first mass rapid transit system in Africa.[38] The Gautrain is a state-of-the-art rapid rail network in Gauteng comprising two links, Pretoria and Johannesburg, and OR Tambo International Airport and Sandton.[39] Travelling at a speed of 160km/h to 180 km/h, the Gautrain can travel from Johannesburg to Pretoria in 40 minutes,[40] making it a preferred mode of transport for many Gauteng commuters.[41]

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25 As above.
26 As above.
27 Kleingeld (n 21 above).
28 As above.
29 n 18 above.
30 As above.
31 For more information see: E Grey, 2015. South Africa: investing in a new era of rail, Available at https://www.railway-technology.com/features/featuresouth-africa-investing-in-a-new-era-of-rail-4568871/ (accessed 22 July 2019).
32 As above.
33 As above.
34 As above.
35 n 18 above.
36 As above.
37 For more information see: Gibela Rail Transport Consortium., 2019. Gibela is spearheading the revitalisation of rail transport in South Africa's metro areas – ushering in a new age of rail, Available at https://www.gibela-rail.com/about-us/company-overview (accessed 23 July 2019.)
38 Kleingeld (n 21 above).
39 n 18 above.
40 As above.
41 For more information see: KPMG. 2014. Gautrain – Our Journey To A Better Gauteng: Economic impact of the Gautrain system and future expansion on the Province, Available at http://gma.gautrain.co.za/Style%20Library/Branding/Doc/Gautrain_Economic_Impact_Exec_Summary.pdf (accessed 31 July 2019).

4.2. Benefits and issues surrounding railways

Through the expansion of the railway line in South Africa, projections indicate that there will be economic and social gains through this venture. Through the expansion of railway, Transnet projects that the cost of doing business in South Africa will be lowered, as long distances and big volumes will make transporting goods more cost-effective, with this cost-efficiency being passed onto the customers. Moreover, with the locomotives being locally manufactured, job and skill development opportunities will increase.[42] The use of railways would reduce the number of trucks on the road, ensuring a reduction in road maintenance expenditure, which will enable a municipal or provincial government to reallocate part of the road infrastructure budget to other areas.[43] In addition to improving the movement of goods, the rail network could also alleviate the burden on more congested public transport systems, such as buses and taxis.[44]

In spite of the forecasted benefits of railway expansion, a number of issues raise concern, particularly security issues. Western Cape has become infamous for criminal activities and security breaches on trains and train platforms. The province lost 149 trains from May 2015 to 2018 from arson and vandalism.[45] Other security issues include cameras in the stations not working since 2015 and platforms without cameras; a lack of fencing and little or no access control to stations; commuters not being informed about train cancellations and delays; overcrowding in trains; some Metrorail security guards operating without uniforms; firefighting equipment not readily available at all stations, and contract security guards were not consistently paid.[46] In KwaZulu-Natal, a train was hijacked and taken on a joy ride by two suspects, raising concerns over security.[47]

4.3. Risks and security threats

Any attacks and disturbances to land freight and passenger transport will have a significant impact on economic growth, territorial cohesion, social development and environment.[48] Historically, in major European cities, several attacks have deliberately targeted the rail transportation, especially metro systems.[49] These attacks have been specifically designed to cause maximum disruption and a high number of fatalities.[50] Attacks on subways and trains have shown that the rail network is an attractive target for attackers to spread fear and terror in the population.[51] The study sought to identify the various security issues or threats associated with railways in the South African context. It also ascertained the dynamics around security measures in place within railway systems, including their lawfulness.

Many issues arise through insecurity. Insecurity at railways results in loss of life and injuries to passengers, and make the railway vulnerable to threats and terrorist attacks. Edwards and Goodrich[52] define security as the effort to protect assets, human or intellectual, from criminal interference, removal or destruction, whether by terrorists or domestic criminals, or incidental to technological failures or even natural hazards events. According to Duijnhoven,[53] in the realm of railways, the term security is often associated with personal security, referring to the protection of employees and passengers.

According to Plant, Gordon & Young,[54] risk analysis is a method of relating three factors: vulnerability, threats and consequences. Vulnerability is based on an objective assessment of the likelihood that terrorist attacks, major disasters or other emergencies could occur and produce catastrophic consequences.[55] Precautionary measures need to be established that guard against or address potential threats or threats. Safety measures must be revised annually to address current or evolving trends and security threats. Passenger rail consequences are easier to identify than those for freight rail, because of the frequency with which passenger rail has been attacked in recent years in other national settings.[56] These consequences include loss of life and serious injuries to passengers.[57]

Establishing safety measures ensures that the right solutions are directed at the problem at hand, which may assist in reducing casualties and mitigating loss of life, damage to property and bodily injuries. Freight rail attacks, or disruptions caused by non-terrorist human error or natural calamities, result in serious economic damage and environmental damage depending on the goods or hazardous materials being transported.[58] For an act to be called a threat, there need to be two factors: intent and capability.[59] The alleged perpetrator must have the necessary intention and capability to execute the attack.

42 Grey (n 31 above).
43 For more information see: N James. 2016. Rail freight system will benefit economy, reduce road maintenance, Available at https://www.engineeringnews.co.za/article/rail-freight-system-will-benefit-economy-reduce-road-maintenance-2016-11-25 (accessed 24 July 2019).
44 As above.
45 For more information see: L Daniel. 2018. MetroRail loses 149 carriages in three years due to arson and vandalism, Available at https://www.thesouthafrican.com/news/metrorail-loses-149-carriages-in-three-years-due-to-arson-and-vandalism/ (accessed 25 July 2019).
46 For more information see: T Washinyira. 2018. Police slam PRASA on rail safety, Available at https://www.news24.com/SouthAfrica/News/police-slam-prasa-on-rail-safety-20180927 (accessed 25 July 2019).
47 For more information see: M Zulu. 2019. Empty train hijacked in KZN, taken for a joyride – report, Available at https://citizen.co.za/news/south-africa/2158201/empty-train-hijacked-in-kzn-taken-for-a-joyride-report/#.XTbPYPZC8yU.facebook (accessed 25 July 2019).
48 Z Boudi, M Ghazel, El Koursi & El Miloudi 'The New Challenges of Rail Security' (2016) 4 Journal of Traffic and Logistics Engineering 5.
49 As above.
50 As above.
51 As above.
52 F Edwards & D Goodrich. Introduction to Transportation Security. Boca Raton: CRC Press (2013). For more information see: https://doi.org/10.1201/b12921.
53 HL Duijnhoven. For security reasons: narratives about security practices and organizational change in the Dutch and Spanish railway sector (2010).
54 JF Plant 'Terrorism and the railroads: redefining security in the wake of 9/11' Review of Policy Research 21(3) (2004) 293-305.
55 As above.
56 As above.
57 As above.
58 As above.
59 As above.

The common threat, which is directed to public transportation or, in this instance, railway, is that of terrorism. Plant et al[60] defines terrorism using two characteristics critical for distinguishing terrorism from other forms of violence and argues that terrorism is aimed at non-combatants, which makes it different from fighting in war. Plant et al[61] further argues that terrorists use violence for dramatic purpose: usually to instil fear in the targeted population. Di Febbraro, Papa and Sacco[62] define terrorism as the deliberate use of violence against people or properties to intimidate or coerce a government or the civilian population in furtherance of political or social objectives.

The public transport sector is vulnerable to terrorist attacks as a result of its infrastructure and due to the manner in which public transport systems are operated. Research revealed that among the tactics adopted to attack trains and subway systems, bombing is largely the preferred and more common way to carry out attacks, followed by sabotage, armed attack and arson.[63] Between 1998 and 2003, there were 181 attacks worldwide on trains and related rail targets such as depots, ticket stations and rail bridges.[64] According to Riley,[65] bombs were the most frequently used weapon in these attacks, although firearms and arson were also used. The type of weapons used will indicate terrorists' desired outcome and impact.[66] In South Africa, train attacks take the form of vandalism and arson.

Most of the arson attacks in South Africa result from commuter dissatisfaction and government failure to address commuters' safety and security concerns. In some instances, the arson attack is a cry for service delivery by the public. Terrorists are likely to perceive psychological benefits from attacking passenger transportation networks.[67] Terrorist attacks are usually attributed to personal gratification or are motivated by political reasons. Even prior to the 11 September terrorist attacks, the Federal Railroad Administration had required passenger trains to have emergency plans in place.[68] The reason for the requirement was to better prepare for terrorist attacks since passenger train accidents had not been a frequent occurrence.[69] Where an act has the potential to affect transport systems, it should be treated as a potential threat.[70]

Riley[71] states that rail attacks are more numerous and deadly than those on airports and airplanes, but have not been as numerous or resulted in as many deaths as those on buses and related infrastructure such as ticket offices and depots. Passenger rail facilities become targets for terrorists as they are easily penetrated and it becomes easy to target railway systems during peak times where there are high concentrations of people.[72]

According to Duijnhoven,[73] ever since the terrorist attacks in New York in 2001, Madrid in 2004 and London in 2005, security has been a salient theme of Western society. Numerous attacks have been directed at railways systems as they are easily accessible. Riley[74] argues that the physical space constraints in some locations, coupled with commuter densities, make it nearly impossible to construct rail station 'safe zones' such as those separating check-in counters from departure gates at airports. The March 2004 bombing of passenger trains in Spain highlighted the vulnerability of passenger rail systems to terrorist attack.[75] The number of riders and access points make it impractical to subject all rail passengers to the type of screening airline passengers undergo.[76] Railway systems pose many challenges to conducting security checks of passengers and their possessions or luggage. Railways have a high concentration of people at a particular time and trains arrive at stations within short intervals. Crucially, people use railway services because of the convenience railway systems provide. To impose such security checks would result in many delays.

The State of Safety Report for the 2017/18 financial year states that security-related incidents increased by 21.3% in that year.[77] PRASA reported the most malicious damage (50%) to property in 2017/18.[78] A significant proportion (73%) of personal safety incidents at stations occurred in the Western Cape, of that 73% Western Cape was responsible for 42%. This province also recorded the greatest number of assaults on trains in 2017/18.[79] These numbers will continue to rise if there are no feasible safety and security plans or solutions.

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60 As above.
61 As above.
62 A Di Febbraro, F Papa & N Sacco Security of Railways Infrastructures. In Railway Safety, Reliability, and Security: Technologies and Systems Engineering. IGI Global. (2012) 355-379.
63 Boudi (n 48 above).
64 KJ Riley. 'Terrorism and Rail Security' (2004), For more information see: https://www.rand.org/pubs/testimonies/CT224.html.
65 As above.
66 As above.
67 Riley (n 64 above).
68 As above.
69 As above.
70 As above.
71 As above.
72 As above.
73 H Duijnhoven 'Security culture in the Dutch and Spanish railway sectors: a historical perspective' (2007) 28(2) The Journal of Transport History 272-288.
74 Riley (n 64 above).
75 DR Peterman 'Passenger rail security: Overview of issues' (2005), For more information see https://apps.dtic.mil/dtic/tr/fulltext/u2/a453703.pdf.
76 As above.
77 For more information see: https://mainnews.net/africa/south-africa/rail-safety-report-released/ (accessed 23 July 2019).
78 As above.
79 As above.

4.4.   Use of technology

According to Seifert, emerging fields of technology are increasingly becoming recognised as an integral component in improving security standards in the rail sector, with great potential to address current and future issues such as level crossing security, train protection, anti-terrorism response and crisis management.[80] Moreno argues that the value-added features provided by radio communications can be grouped into three types of services: safety-related services, which are responsible for the safe movement of trains; operational, non-safety services, including services for operators or stakeholders without safety implications, such as closed circuit television (CCTV), passenger information, remote maintenance, and sensing. Technological advancements as a security measure would definitely assist with railway security in South Africa.[81] Technology brings about many developments, for example the use of rapid transit rail (Gautrain) means fewer people need to be deployed to ensure effective operation. Further, it means the train can be operated from one central point without a physical presence at railway lines as in the past.

According to Brigadier Bonginkosi Solucutho, commander of the Rapid Rail Unit in the Western, Eastern and Northern Cape, during the 2017/18 financial year, 1 385 incidents of contact crimes were reported and 711 incidents of cable theft.[82] When questioned on why there were so few arrests, Brigadier Solucutho noted that the CCTV cameras installed at stations had not been working since 2015.[83] It was further alleged that Siyangena Technologies was paid billions of rand to install at stations integrated security and access management systems that have never worked.[84] These included CCTV cameras and equipment for control rooms at PRASA stations throughout South Africa.[85] PRASA has failed to effectively address concerns surrounding security at railways, thus contributing further to safety and security issues. CCTV cameras need to be installed on railway systems to monitor activities occurring on trains. This will allow PRASA not only to monitor the trains but also to make more arrests in the event of criminal activities taking place.

It can be argued that the open infrastructure makes railways difficult to monitor, control and visually patrol, or to ensure safety and security through technology. Open infrastructures are easily accessible to criminals, which make them vulnerable to criminal activities such as cable theft. Another challenge in using the latest technology as a security measure is the cost involved and resources. In deploying new technologies, the use of railway services must continue to be convenient and inexpensive for commuters. Riley[86] argues that security measures resulting in increased fares or longer travel times would be likely to reduce the number of people using railway services.

It is presumed that with the advancement of technology, future threats to railways systems will be related to cyber threats or cyber-attacks. Technological advancements bring about many security industry challenges, including vulnerability to hacking of software programs. Other large-scale attacks by criminals seeking financial gain have been conducted in South Africa.[87] In November 2014, the Directorate for Priority Crime Investigation made a number of arrests after attempts were made to hack into the Gautrain Management Agency's accounts, with an estimated R800 million at risk.[88]

4.5.   Training of security service providers

In 2018, in its aim to address issues of safety and security of Metrorail commuters and infrastructure, the City of Cape Town's Law Enforcement Department sought to deploy 100 rail enforcement officers,[89] which the city's Mayoral Committee approved.[90] It was recorded that the officers would receive their training at the City's Safety and Security Training Academy.[91] In 2019, to address safety and security problems, Minister of Transport Fikile Mbalula confirmed he would sign a memorandum of understanding (MoU) with the police minister to outline basic safety training of security personnel at PRASA.[92] He further stated that PRASA security guards would be insourced and receive police training.[93] A call by the Minister of Transport to have security personnel receive police training is cause for concern and brings into question the adequacy of PSiRA training standards to equip private security to carry out security-related duties on railways systems. The above statements highlight just how decrepit the state of railway security is and the need for intervention. Private security personnel must undergo training approved or accredited by PSiRA.

80 M Seifert 'Using modern technology to enhance rail security. In Rail Achieving Growth: Conference Proceedings' (2006) 457.
81 L De Haro, J Moreno, JM Riera & C Rodriguez 'A survey on future railway radio communications services: challenges and opportunities' (2015) 53(10) IEEE Communications Magazine 62-68.
82 For more information see: D Mogotsi. 2018. The state of commuter safety in Metrorail. Available at https://www.saferspaces.org.za/blog/entry/the-state-of-commuter-safety-in-metrorail.
83 As above.
84 As above.
85 As above.
86 Riley (n 64 above).
87 JL Griffiths 'Cyber security as an emerging challenge to South African national security' Doctoral dissertation, University of Pretoria 2016.
88 As above.
89 For more information see: L Zhukovsky. 2018. City of Cape Town to recruit 100 rail enforcement officers available at https://www.bizcommunity.com/Article/196/585/180208.html (accessed 23 July 2019).
90 As above.
91 As above.
92 As above.
93 For more information see: S Payne. 2019. Mbalula promises safer rail transport on eve of train drivers' strike. Available at   https://www.dailymaverick.co.za/article/2019-07-25-mbalula-promises-safer-rail-transport-on-eve-of-train-drivers-strike/ (accessed 25 July 2019).

4.6.   Regulation of railway

Every country has its own rail management structures, responsible for, amongst other, safety processes for the movement of both internal and external trains affecting the environment. In South Africa, this rail management structure is the RSR, established by the South African National Railway Safety Regulator Act No 16 of 2002 (NRSR Act) to regulate the South African railway line. The RSR's functions include overseeing the safety of railway transport, while operators remain responsible for managing the safety of its operations; promoting improved safety performance to encourage the use of rail; monitoring and ensuring compliance by conducting audits, inspections and occurrence investigations; developing regulations; concluding appropriate cooperative agreements or other arrangements with organs of state to ensure effective management of safe railway operations, and promoting the harmonisation of the railway safety regime of South Africa with Southern African Development Community (SADC) railway operations.[94]

Through the NIP, South Africa aims to have the fifth largest railway in the world.[95] A safe railway instils confidence in the public, passengers, customers and investors.[96] Railway safety regulations are very important as they may potentially hinder the growth and improvement of the railway line. For rail transport to play a vital role in society, the primary and overall requirement is that it is a safe mode of transport.[97] The RSR State of Safety Report shows a 13% increase in safety-related occurrences from 2013 to 2017, with occurrences decreasing by 5% from the previously mentioned period.[98] Railway occurrences as defined in the RSR Act, 2002 are railway accidents or incidents resulting from operational or security events.[99] On the other hand, railway safety performance is defined by the number of operational occurrences, the number of security incidents such as theft and vandalism, and accidents, fatalities and injuries.[100]

As mentioned, part of the regulatory framework of the RSR is performed through inspections and occurrence inspections. Effective and independent investigations are one way of managing accidents and incidents.[101] To prevent injury-causing incidents, it is crucial to learn from past events and near misses.[102] Through reporting accidents and investigations, an organisational learning environment is facilitated that prevents recurrences through implementing changes.[103] This is, however, not always the case, as many hindrances exist in the reporting and investigations process. According to a study by Hutching and Thatcher, these include shortage of skilled investigators, limited resources (personnel and equipment) to investigate, absence of investigator training, time pressures to complete investigations, time delays in starting inquiries after an occurrence, financial costs of establishing inquiries, which limits the number of boards of inquiries held, and very few accident causation tools or methods used during investigations.[104]

It is not only the issues that surround reporting that hinder effective regulation; but learning from investigations also affects regulation. Investigations create a learning environment as mentioned, but the statistics on rail safety indicate a different scenario. Hutching and Thatcher also mention that information is withheld during investigations as some personnel do not want to be blamed for incidents.[105] Moreover, the learning is limited to the railway company investigated, thus other companies do not learn how to prevent incidents.

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94   For more information see: Transnet, 2010. Powers of the Railway Safety Regulator, Available at http://www.transnetfreightrail-tfr.net/MediaSafety/Pages/Railway-Safety-Regulator-Act.aspx (accessed 26 July 2019).
95   Grey (n 31 above).
96   For more information see: 'Railway safety performance in the European Union Biennial Report' 2016 European Union Agency for Railways. Available at https://erail.era.europa.eu/documents/SPR.pdf (accessed 29 July 2019).
97   J Hutching & T Thatcher. 2018. 'Do we really learn from railway occurrence investigations? A South African railway industry perspective' Ergonomics SA: Journal of the Ergonomics Society of South Africa (2018) Vol. 30(1) 1-20, Available at https://hdl.handle.net/10520/EJC-14253dce2d.
98   As above.
99   As above.
100 As above.
101 P Van Vollenhoven 'Independent accident investigation - the right of each citizen and society's duty' Japan Railways & Transport Review Vol 33 (2002) 14-19.
102 SO Hansson, AK Lindberg and C Rollenhagen 'Learning from accidents – what more do we need to know?' Safety Science, (2010) Vol 48(6) 714-721.
103 Hutching and Thatcher (n 97 above).
104 As above.
105 As above.

5.   Findings

The following section of the report consists of the findings gathered from the study.

5.1.   Current state of security in railway

5.1.1.   The positives and negatives surrounding rail

Railways play a fundamental role in the transportation of persons and freight locally and internationally. Railway systems are very congested as millions of people use them[106] as an affordable mode of transport for people from low income backgrounds.[107]From the data gathered, children as young as six years use trains to travel from the townships to town to attend school.[108]Trains ensure that people who cannot afford more expensive modes of transport are conveyed to their desired destinations. Compared to other modes of transport such as aviation, rail is more accessible as most city centres have railway stations.[109]Railway tracks and the location of railway stations directly impact the economy as well. Railway track layout is designed to transport people from different locations to the city to ensure so that they arrive at work safely and on time.

Rail security is not limited to trains, but includes the whole station.[110]The business structure of railway service providers ensures that the commuting experience is efficient and safe. Gautrain has Autobus, which provides transport from Gautrain stations to surrounding areas. Autopax is PRASA's bus service for long hauls between cities and towns.[111] There is also PRASA Crest, which includes PRASA-owned buildings where businesses operate and commuters are able to purchase whatever they need.[112]The location of the main PRASA railway stations makes it easy for commuters to access bus and taxi services. The role of security officers is to ensure that commuters are safe upon arrival and departure at stations.[113]

Challenges have caused rail to move from being an efficient to an ineffective mode of transport.[114]The most prevalent issue is the late arrival of trains, which prevents loss people from arriving at work on time. This is caused by cable theft, signals and other factors,[115] in which can also cause trains even to stop on the railway tracks. Cable theft is a very sensitive issue, as syndicates are involved.[116] Frustration causes commuters to set fire to non-moving trains.[117]The late arrival of trains has also resulted in commuters losing their jobs,[118]which is a major problem in a country with a 29.1% unemployment rate.[119]

As previously mentioned, rail is congested with trains overcrowded with passengers daily. Overcrowding makes it impossible to ensure train security, because guards cannot perform patrols in crowded trains as they are outnumbered and can be disarmed and killed.[120]Lack of patrols enables criminal activities. There are also not enough guards in rail[121] to protect existing infrastructure from vandalism, and ability to protect expansions and new fourth industrial revolution (4IR) technology is questionable.

5.2.   Regulation of the railway sector

The RSR is the regulating body of the railway safety in the country as per Section 4 of the NRSR Act.[122] The object of the regulator as per the NRSR Act is to:

(a) oversee safety in the railway transport industry; (b) promote the use of rail as a mode of transportation through improved safety performance in the railway transport industry; (c) develop any regulations that are required in terms of this Act; (d) monitor and ensure compliance with this Act; and (e) give effect to the objects of this Act.[123]

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106 I Prosser, Annual Rail Safety Conference 2019, 1 October 2019 Devonvale Golf and Wine Estate, Cape Town.
107 Rajan Haripersad, PRASA, 24 October 2019.
108 As above.
109 Prosser (n 106 above).
110 Jane Tsotetsi, PRASA, 17 September 2019.
111 As above.
112 As above.
113 As above.
114 Mario Firmstone, PRASA, 23 October 2019.
115 Tsotetsi (n 110 above).
116 S Mabaso and W Mavoni, Gautrain, 5 November 2019.
117 As above.
118 N Lionjanga and R Myoya, Annual Rail Safety Conference 2019, 1 October 2019 Devonvale Golf and Wine Estate, Cape Town.
119 For more information see: Staff Writer, 2019, South Africa's unemployment rate climbs to 29.1%, Available at https://businesstech.co.za/news/business/349673/south-africas-unemployment-rate-climbs-to-29-1/ (accessed 14 January 2020).
120 Tsotetsi (n 110 above).
121 As above.
122 National Railway Safety Regulator Act, 2002.
123 As above.

Safety as relating to rail is the lack of railway occurrences, fatalities, injuries or damage within railway operations.[124] In terms of Section 37 of the NRSR Act, railway operators are required to report all occurrences and incidents to the RSR. The National Standard on Safety Management Systems, SANS 3000-1, provides an overview of the different categories and descriptions of major operational occurrences and security-related incidents.[125] Through reporting of occurrences, the Regulator can investigate occurrences and make recommendations on how train operators can improve safety.

The RSR has tools which are put together that are used to regulate the industry.[126] One of these is safety permits as indicated in Section 22 of the NSRS Act. A person who does not have a permit cannot undertake any railway operation.[127] The Regulator also has safety inspectors empowered in terms of Section 32 of the NSRS Act[128] to ensure the safety of railway operations.

5.3. The state of security in rail

Although safety and security are two different aspects, they influence each other. The NRSR Act defines security as 'freedom from intentional harm or damage to persons or property'.[129] The RSR State of Safety Report 2018/19 reported a 20% increase in security-related incidents from the previous year, a 125% increase from 2012/13.[130] The report further highlights a 36% increase of fatalities due to security-related occurrences; a 6% increase in security-related occurrences; and a 15% increase in fatalities and weighted injuries due to security-related occurrences.[131] The state of security in rail is cause for concern as there is an increase of security-related incidents and a decrease in operational occurrences.

The RSR does not have jurisdiction over rail security as it does not fall under its mandate and is not its primary focus.[132] Security-related matters have badly impacted the railway industry as the above statistics indicate. The RSR feels that PSiRA, as the regulator for private security, is not doing enough to ensure compliance.[133] It was reported that there were some security officers who were working in rail but were not PSiRA-registered.[134] Contracted security guards working in railway stations reported that the companies they worked for also deployed unregistered foreign nationals to provide security services, which contravenes the PSiR Act.[135] It was also reported that persons with criminal records were working in rail and providing security services.

It was, however, highlighted by the Authority's inspectors that a criminal record does not prevent a person from registering and working as a security officer, depending on the crime committed and when it was committed.[136] It was reported that some criminal records dated back to the apartheid era.[137] An industry monitoring challenge for PSiRA is that the Authority is not linked to the SAPS database. A security officer may continue to render a security service having committed a crime, which is picked up only on renewal of PSiRA certificates. The Authority also depends on the industry to report any misconduct by security service providers. The consumer notice as per Section 38 (3)(g) of the PSiR Act, compels consumers of private security services to report security businesses and security officers in contravention of Section 20 of the Act.[138] Persons who willingly accept the rendering of security services from persons contravening the PSiR Act are also contravening the Act and committing an offence.

5.4. PSiRA as the private security regulator

5.4.1. Ensuring compliance

Part of PSiRA's mandate is to promote a legitimate private security industry, which acts in terms of principles in the Constitution and other applicable laws.[139] The Authority achieves its mandate through, for one, inspections to ensure compliance. Railway security does not have its own segment for inspections and is treated as retail, industrial or other on the list of inspections, depending on how the inspector sees fit.[140] Inspectors in Western Cape classified railway inspections as other.[141] This may not be a huge issue as participants highlighted that PSiRA inspectors had conducted inspections on security officers on their premises. One participant was pleased with the element of surprise of PSiRA inspectors.[142] The variability of inspection categories, while not a huge issue, causes some discrepancies in statistics of inspection targets for the Authority. Giving railway security its own category, it was mentioned, may be a problem because not all provinces have railway tracks and it would impact negatively on the targets of the Law Enforcement Unit.[143]

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124 As above.
125 RSR State of Safety Report 2018/2019.
126 B Mqoco, J Nethathe & R Ntshingila, RSR, 14 October 2019.
127 NRSR Act, 2002.
128 As above.
129 As above.
130 RSR State of Safety Report 2018/2019.
131 As above.
132 Mqoco et al (n 126 above).
133 As above.

134 As above.
135 Security guards, 17 September 2019.
136 J Sambo and G Singh, PSiRA, 23 January 2020.
137 As above.
138 As above.
139 PSiRA Intranet, Available at http://intranet-info.psira.co.za/joomla/index.php/about-psira/legislative-mandate (accessed 8 February 2020).
140 Sambo and Singh (n 136 above).
141 N Hooblal, Western Cape, 30 January 2020.
142 Z Fusa, PRASA, East London, 4 February 2020.
143 As above.

Railway security is treated as normal guarding, with inspections done on the uniforms of security guards, firearms, registration of security officers and payment of wages as per the Basic Conditions of Employment Act No 75 of 1997 (Sectoral Determination 6).[144] Railway inspections are conducted on both contracted and in-house security. Any non-compliance by contracted security companies results in charges of improper conduct and may lead to a penalty that the security company must pay.

An issue raised is that contracted security guards working in rail are exposed to confidential operations and operator information. Further, compliance issues arise when the contracted security guard's contract is about to end. For instance, some contracted security companies do not buy their guards new uniforms when the contract is coming to an end.

The study found that security service providers in the railway sector are aware of PSiRA. Moreover, in-house security officers operating in rail are registered with PSiRA and their functions include managing, monitoring and supervising outsourced or contracted guards. To achieve this, compliance officers ensure that the staff are registered with PSiRA and their registrations are renewed before the renewal cut-off dates.[145]

In the PSiRA report titled *Narrowing the gap: The regulation of the in-house security sector,* it is stated that participants complained that PSiRA inspectors tend to focus more on compliance of security officers on the ground than their managers, supervisors and administration officers.[146] Xulu's findings are also evident in this study as the provision of railway security is not limited to security guards but encompasses CCTV installers, CCTV cameras, VIP protection and training instructors. The aforementioned fall under security services and security equipment as per Section 1 of the PSiR Act and must be inspected, but this does not happen.[147]

5.4.2. PSiRA's mandate and powers

It was found that the mandate and powers of PSiRA in the security industry seem to be misunderstood by the railway industry. PSiRA ensures that measures taken by the railway operator are in line with the PSiR Act and its regulations. The establishment and implementation of security measures such as security plans does not necessarily fall under the mandate of the Authority. Nevertheless, PSiRA can advise as its mandate permits.[148] Criminal activities in rail cannot be addressed by PSiRA as the powers of inspectors are limited, unlike those of SAPS officers. PSiRA depends on SAPS to effect arrests.[149]

Accordingly, rail has a special SAPS division dedicated to protecting and preventing criminal activities on railway lines. The mandate of the Rapid Rail Police Units is embedded within the SAPS mandate, which is derived from Section 205 of the Constitution of the Republic of South Africa, 1996.[150] The unit's functions include:[151]

The rendering of a visible policing services in the rail environment to address safety of commuters, passengers, freight and the rail transport system;

Conducting of preventive and reactive policing services in the rail environment

The provision of a rapid rail policing service in the rail environment

Performing crime prevention and crime combatting operations in the rail environment

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144 Sambo and Singh (n 136 above).
145 Tsotetsi (n 110 above).
146 H Xulu 'Narrowing the gap: The regulation of the in-house security sector' 2020.
147 Tsotetsi (n 110 above).
148 As above.
149 As above.
150 SAPS, 2016, Status: Functioning of rapid rail police [PowerPoint Presentation], Available at http://pmg-assets.s3-website-eu-west-1.amazonaws.com/160921Rapid_Rail_Police.pdf (accessed 12 February 2020).
151 As above.

A partnership between PSiRA and the SAPS Rapid Rail Unit was suggested as SAPS has more clout. However, this never materialised.[152]

5.5. Training of railway officers

The security structure in rail consists of contracted security officers and in-house security officers. Contracted security guards are required to have PSiRA grade E and D training.[153] They also receive on-the-job training, which is the induction training based on ensuring safety of security officers when working in rail.[154] It includes platform safety, overhead track and electricity, and training on the Legal Succession Act No 9 of 1989, which informs security officers on what to do in rail and on rail offences.[155] The training also focuses on customer services, namely verification of passenger tickets.[156]

It was found that the majority of in-house security officers have received accredited training from the Security and Safety Sector Education and Training Authority (SASSETA), such as SASSETA skills training 1 to 5.[157] Security guards working in rail are trained in skills level 1 to 3.[158] The officer is then given recognition of prior learning and graded according to PSiRA grades.[159] Mandatory in-house security officer courses include firearms training, peace officer training, occupational health and safety, firefighting and first aid training.[160]
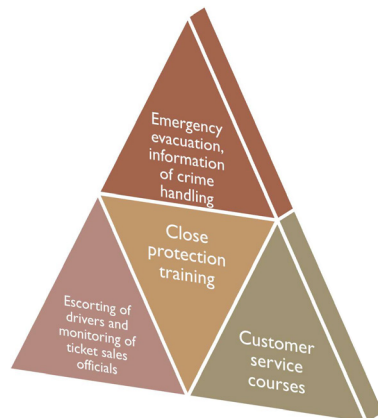
PRASA had some client-specific courses offered internally which were SASSETA accredited. However, when the accreditation of the Transport Education Training Authority (TETA) lapsed, the PRASA training centre could not obtain compliance accreditation from SASSETA.[161] PRASA now outsources its training to accredited service providers.

The SASSETA skills training is preferred because the unit standards are transferable to other professions as they are recognised by the South African Qualifications Authority and have National Qualifications Framework levels. It also has more unit standards than the PSiRA grades, which makes it more desirable.[162] Obtaining a SASSETA skills training certificate is more difficult than obtaining a PSiRA certificate. SASSETA has verifiers who check the performances of students, whereas PSiRA does not.[163] Inspections are conducted only on the registration and premises of the training centres. Participants highlighted that PSiRA certificates are easily obtainable because they can be 'bought'.

Another issue highlighted was that PSiRA training is generic and is good for the guarding sector. However, all the stakeholders raised the need for a different grade and training focusing specifically on railway security. Some PSiRA officials differed with this view, stating that the security guard training mentioned is already offered through the normal guarding training. It is up to the client and the consumer to request through the service level agreement that guards to be deployed must have certain competencies.

Security officers not being able to perform certain functions reveals a bigger challenge with training centres and supports the notion that PSiRA certificates can be bought. Training centres are not strict with their training and allow everyone to pass. When PSiRA was asked to check service providers providing compliance training,[164] it found that certain training providers do not provide certificates and their training could not be verified.[165]

It has been suggested that railway training courses should, among other things, cover the following:

Emergency evacuation, information of crime handling

Close protection training

Escorting of drivers and monitoring of ticket sales officials

Customer service courses

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152 Sambo & Singh (n 136 above).
153 Firmstone (n 114 above).
154 As above.
155 As above.
156 Tsotetsi (n 110 above).
157 Firnstone (n 114 above).
158 Tsotetsi (n 110 above).
159 As above.
160 Firnstone (n 114 above).
161 As above.
162 Tsotetsi (n 110 above).
163 As above.
164 As above.
165 As above.

Training on dictation of signal lights. Railway guards should have knowledge of and training in crowd control and customer service to represent their company. He must how to act when a fatality or injuries have occurred and how to write an accident report. The K9s need to be trained to work on railways.

The study found that because there are currently no training institutions categorised as railway training providers, no inspections are conducted that focus specifically on railway security. Some stakeholders argued that the security guards need to undergo crowd control training, but crowd control is the mandate of the public order police.[166]

A challenge raised was that although security service officers have to undergo security training, no-one verifies that it took place or that the standards of the training were met.

5.6.   Training challenges

It was pointed out that training undertaken by outsourced security guards is general training.[167] For instance, outsourced security officers generally fail firearm refresher training and not enough time is invested in training.[168] Security guards generally do not know how to react when confronted with a fatalities. They don't know how to write a police statement, and some are not educated about the minimum use of force.[169] Some of the stakeholders suggested that the outsourced security officers should be trained and be recognized as peace officers as the security guards are not training to be peace officers and lack knowledge of the applicable legislation. The following are the prerequisite requirements for one to become a peace officer: , one must be of suitable character, apply to the commissioner of SAPS to be sworn in and obtain a competency card that stipulates which acts can be carried out. A private security service provider cannot just be a peace officer. To be a peace officer, the security service provider must work in a government department or be an employee of a law enforcement department or city police. PRASA in-house security officers have peace officer status and are registered with SASSETA.

Stakeholders stated that grade C: written reports, fire prevention and protection and grade E: basic legal aspects are among the course that should be a requirement for railway security officers. These courses already exist and are accredited by PSiRA. Maybe these stakeholders are not aware of the courses offered. Further, it is up to the consumer to ensure that railway security guards have the prerequisite training. This is an opportunity for PSiRA as a regulator to step in, bridge the gap and educate this sector about the training available. Although the training already exists, it needs to be updated to meet current stakeholder needs and to be relevant to current and evolving risks and challenges in this sector.

A further challenge is the size of the private security industry which has grown exponentially, with new people coming into the industry or being deployed every day.[170] If a security guard is dismissed, a new guard needs to be trained, but at times there is limited time to conduct the induction.

5.7.   Working animals

The study found that working animals, such as dogs and horses, are used in the private railway security sector. While dogs and dog-handlers are inspected by PSiRA inspectors, there are no inspections of horses. Draft Regulations Relating to Working Animals in the Private Security Industry have been developed and will be introduced to address registration of the dog handler and the working animal, training and accreditation, among others.

Accordingly, it will be mandatory that working animals and their handlers be registered with PSiRA. Draft Regulation 5 (1) provides that: 'No person may train, supply or use a working animal for purposes of or in connection with the rendering of security services unless he or she is registered as a security service provider.'[171] Further, 'No working animal may be trained, supplied or used by any person for purposes of or in connection with the rendering of security services unless the working animal has been and remains registered by the Authority in the manner prescribed in this regulation.'[172]

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166 Fusa (n 143 above).
167 As above.
168 Firmstone (n 114 above).
169 As above.
170 Fusa (n 143 above).
171 Draft Regulation 5 (1), Regulations Relating To Working Animals In The Private Security Industry, 2018.
172 Draft Regulation 6 (1), Regulations Relating To Working Animals In The Private Security Industry, 2018.

5.8. Security equipment

Steps are being taken to incorporate (4IR) technology into rail to ensure the efficiency of rail transport and potentially decrease railway occurrences. The use of drones in Western Cape has yielded positive results as perpetrators (some of them employees) are caught in the act committing crimes. Drones also assist in the conviction of the criminals.[173] Technologies such as auto pilot will be rolled out in trains in the near future, but it is questionable whether this technology will be beneficial if basic safety and security issues are not addressed. Stakeholders alluded that the use of technology has proved effective.[174] Technology already exists in rail, especially in providing security. CCTV cameras around train stations, in the trains, and in Gautrain buildings and platforms have ensured an impressive 99% recovery rate of stolen goods for Gautrain.[175]

Technology brings about highly effective security measures for the railway system.[176] The participants said that they do not prefer the use of firearms, especially where civilians are involved.[177] The use of firearms, although one could say is a deterrent to crime, is also a potential threat to the public.[178] The use of K9s preferred.[179] Some of the rail security equipment includes CCTV cameras, handcuffs and drones. Drones have played a significant role in assisting with arrests.[180]

It is argued that although technology has many advantages, it also has disadvantages. It is said that the use of technology by railway security guards in the future is going to be a challenge.[181] For instance, in Cape Town, cameras have been stolen by members of the public.[182] In addition, the use of drones is seasonal - during winter and windy days drones cannot be used.[183] Furthermore, 'warm bodies' are needed to operate these technologies and people (security officers) - need to be trained on how to use these technologies.

6. Recommendations

From the research findings, the following recommendations are made.

6.1. Educating the public

As previously highlighted, safety and security are interlinked. It is recommended that RSR, PSiRA, SAPS Rapid Rail, the various train operators and other stakeholders need to work together in educating security service providers on the consequences of committing criminal activities on and vandalising railway infrastructures. This may assist in reducing occurrence of rail vandalism and theft. Showing a strong front to the public will enforce the image that such acts are not acceptable and there are consequences for committing them.

It is further recommended that PSiRA participate in existing RSR education and awareness campaigns established to educate the public on the security aspects of railway.

6.2. Stakeholder engagements

It is recommended that working relationships between SAPS, PSiRA, RSR and other stakeholders in rail be established by MoU or service level agreement. The public has requested that PSiRA participate in the RSR document compilation prior to publication.[184] Further, it is recommended that PSiRA formalise a working relationship with RSR through an MoU. With the RSR making regulations on safety in the form of the SARS 3000-1, PSiRA could make recommendations and advise on compliance issues. SARS 3000-1 will not only empower the RSR but it will give PSiRA more clout in railway security.

PSiRA needs to participate in the National Railway Crime Combatting Forum, as guards provide the first line of security before any other law enforcement agency. PSiRA's Law Enforcement Unit participates in a number of committees with railway operators, but there is no interaction between RSR and PSiRA. Cooperation would ensure that the regulators work together to address limitations.[185]

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173 Tsotetsi (n 110 above).
174 Mabaso & Wavoni (n 116 above).
175 As above.
176 As above.
177 As above.
178 As above.
179 As above.
180 Tsotetsi (n 110 above).
181 Mabaso & Wavoni (n 116 above).
182 D Small, PRASA, 30 January 2020.
183 As above.
184 Mqoco (n 126 above).
185 As above.

6.3.   Monitoring the industry

Participants highlighted the need for better monitoring of people in the industry. The biggest concern in rail is contracted security guards who gain knowledge about operations and who pose as a threat when their contracts are terminated. Some of these security officers become part of syndicates attacking railway lines. It was recommended that PSiRA work with other law enforcement agencies to monitor these security guards. In order to detect security officers who have committed offences and whose offences are generally picked up only during renewals, the industry recommended that PSiRA have a list of blacklisted officers that the industry can consult to establish whether the security officers are fit and proper as stipulated in Section 23 of the PSiR Act.

6.4.   Training standards

It cannot be assumed that railway security is the same as normal guarding. The industry needs to inform PSiRA on the type of training required for railway officers. The training needs to be applicable to the current risks and challenges in the rail sector. It was recommended that the unit standards mentioned in 5.5 of the report should be added to the training or be separate and treated as specialised training. It was also recommended by the RSR that PSiRA adopt some of the best practices of railway training offered in other countries. PSiRA could adopt, for example, the Nottingham has a module on railway security offered in Nottingham, United Kingdom.

6.5.   PSiRA inspections

It is recommended that inspections should not only be limited to railway security guards as there are other security services provided, such as VIP protection services, CCTV installation and working animals as mentioned above. PSiRA inspections tend to focus only on security officers providing guarding services. Failure to conduct inspections of other services gives security officers the opportunity not to be compliant with PSiRA regulations. Further, the inspections should be extended to evolving 4IR security technologies such as drones.

6.6.   PSiRA training verifiers

With the Authority looking into capturing course reports online, it is expected that the work load of the training consultants will decrease. Thus, it is recommended that some training consultants become training verifiers who will physically go to training service providers at training centres to verify that training indeed took place.

The verifiers will also check that the trainees did not just pass their training but met the requirements for a pass. This can be done through a portfolio of evidence, which shows how exit level outcomes of PSiRA grades were achieved. Verifiers can also be invigilators on the days trainees write exams. If the verifiers identify discrepancies, trainees do not receive their PSiRA certificates.

6.7.   Revision of the term 'railway security'

It is recommended that a definition of what railway security is needs to be developed. The perception is that railway security is limited to guarding which is not the case. Other rail security services. The absence of a definition probably explains why PSiRA inspectors do not inspect other security officers. The definition of railway security needs to be established by PSiRA, assisted by security clusters from railway operators, which will be able to give a clear description. The research suggests that the definition be as follows:

Any security service provider that is appointed (including in-house) by a railway operator to render a security service in terms of the PSiR Act should be categorised as railway security.

From this definition it will be established if railway security needs its own category in the list of inspections or whether things should remain as they are. However, it must be highlighted that PSiRA should not inspect only security guards, but other security services.

7. Conclusion

Africa's railway network plays a vital role in the transportation of both people and freight. An infrastructure that has such huge value in the country needs to be protected at all times. However, crime and vandalism that surround rail paint a grim picture of the state of rail security. Western Cape has been badly hit by these incidences with the province losing millions through arson and vandalism. Injuries are the most disheartening aspect.

The use of contracted and insourced security officers is intended as a deterrent to crime. This this study was undertaken to establish if the Authority was ensuring compliance of rail security officers with the PSiR Act, through inspections often conducted by the Authority's Law Enforcement Unit. The data showed that PSiRA rail inspections were indeed conducted. The biggest problem, that emerged was the training of security officers. Rail security managers and the RSR felt that PSiRA grades are too generic and not applicable to rail security. Participants also highlighted how easy it was for security officers to buy PSiRA certificates.

The industry also highlighted how people not meant to work in rail security were present and offering security services, with some being part of rail crime syndicates. The industry felt that the Authority was not doing enough to ensure security in rail. Data collected showed that the mandate and powers of PSiRA are not aligned to what the needs of the rail industry needed. Recommendations were made that PSiRA work with the Rapid Rail Unit to enforce arrests and ensure that the railway lines are secure.

It is recommended that PSiRA work with the RSR, SAPS, train operators and other stakeholders to ensure compliance in rail. It was also recommended that the Authority not only focus on guarding but inspect other rail security services. It was recommended that training modules be added for security officers working in rail. A call to have training verifiers was made to ensure that trainees are in fact trained and have passed their courses. Better monitoring of security officers is needed, with the industry recommending a blacklist of security officers with criminal offences to ensure that they are not employed by another railway operator.

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