

INCIDENT RATES OF SMALL AND MEDIUM ENTERPRISES IN SOUTH AFRICA

EJ FERREIRA (University of South Africa)
NJF VAN LOGGERENBERG (University of South Africa)

Abstract: While a 10-minute safety speech is being made, two persons will be killed and about 500 will suffer a disabling injury in the workplace. Too many lives are lost globally, not only in large enterprises but also in small and medium enterprises (SMEs). Focusing on SMEs in South Africa, this article discusses the incident rate, the number of serious injuries incurred, the incident investigation processes that SMEs follow and the main reasons why incidents happen. It then offers suggestions on how to decrease the incident rate. The article has been based on an empirical study during which SME owners and managers were telephonically interviewed by means of a structured questionnaire. The results showed that too many incidents still occur, and that the incident investigation process is not always followed. Human error seems to be the main reason why incidents happen. It is believed that both managers and employees need safety-related education, as well as training and assistance to establish a safety environment in the workplace and implement a safety management system.

Key phrases: Decreasing incident rate, incident rate, fatal injuries, incident investigation process, managing safety, SMEs

1 INTRODUCTION

Why should workers continue placing their lives at risk on a daily basis? Too often we see shocking media headlines of explosions, fires, buildings that have collapsed, people who have had bad falls, and other disasters that all contribute to the number of injuries and fatalities in the working environment. Do we see these events simply as unavoidable in certain occupations and expect them to take place at some time or another, or are we determined to do something about them? Surely we do not want to add to the already high murder statistics in South Africa by losing lives through carelessness in our small and medium enterprises (SMEs)?

SMEs are regarded as primary creators of jobs and economic stability. The vital contribution that SMEs can make to employment and income generation is recognised worldwide (Ayyagari, Demircuc-Kunt & Maksimovic 2011:2-4). It is therefore imperative that we should look at incident and fatality rates in such companies and at how these can be reduced. Incidents and fatalities have a negative influence not only on productivity and profit, but also on the psychological wellbeing of employees.

For purposes of this article, SMEs are defined as an extremely heterogeneous group of businesses possessing a wide range of skills of varying degrees of sophistication

and operating in different markets and social environments. In South Africa, the definitions of SMEs and small, medium and micro enterprises (SMMEs) differ from one economic sector to the next. According to the National Small Business Act 102 of 1996 and the National Small Business Amendment bill of March 2003, SMEs are businesses with fewer than 250 full-time, paid employees. Annual turnover, another criterion used in order to classify businesses according to size, could not be used during the research, as most of the respondents were not willing to disclose their income.

The availability of published data on occupational health and safety issues in SMEs is extremely limited. This is also the situation in South Africa, where little research has been done and only a limited number of articles have been published. There seems to be a lack of research regarding the dissemination and application of appropriate occupational health and safety (OHS) information in the workplace. Furthermore, effective mechanisms to reach, assist and impact on SMEs do not seem to be in place. Generally speaking, safety management in SMEs is poor. Although some research has been done on the economic performance of SMEs regarding health and safety interventions, the process remains flawed. It remains a fact that employees of SMEs are more exposed to higher risks than those in larger enterprises, and that SMEs have difficulty in controlling risks (EU-OSHA 2009:6&9).

While most research focuses on the identification of problems and challenges, this article also includes a discussion of the reasons why incidents occur in SMEs within a South African milieu, as well as suggestions for decreasing the incident rate. If employers and SME owners do not give heed to this issue, the incident rate will probably not decrease and many more lives will needlessly be lost. The incident rate at SMEs needs to decrease and research needs to be conducted to assist, not only SME owners and managers, but also governments and other role players, to implement and enforce health and safety policies and procedures.

The main objective of the research on which this article is based, was to determine the incident rate of SMEs located in South Africa. Secondary objectives were to determine the rate of serious injuries occurring annually, the incident investigation process that SMEs follow, and the reasons why incidents happen in the workplace.

Hughes and Ferret (2010:172) distinguish between the terms “accident” and “incident” by describing an accident as an event that results in injury or ill-health, including sickness and an incident as an event, a set of conditions or circumstances that has the potential to cause injury or ill-health and may result in damage to property.

However, according to the Occupational Health and Safety Act 85 of 1993, the term “incident” is the term most commonly used in health and safety issues. The Occupational Health and Safety Amendment Act 181 of 1993 describes the term “incident”, as contemplated in section 24 (1), as an incident occurring at work or arising out of or in connection with the activities of persons at work, or in connection with the use of plant or machinery, in which, or in consequence of which, any person dies, becomes unconscious, or suffers bodily loss or defect, as well as where the health or safety of any person was endangered under certain circumstances. This definition of an incident seems to include that of an accident. These definitions contradict one another somewhat, thus it was decided to follow the Act and use the term “incident”, since it includes an “accident”.

2 THEORETICAL FOUNDATION

The theoretical foundation of this study on incident rates and related issues is made up of studies undertaken in different parts of the world, as this type of research has scarcely been touched upon in South Africa. This section covers managing and measuring safety and decreasing both the incident rate and fatal injuries.

2.1 Managing and measuring safety

Safety management in SMEs differs from that in larger enterprises. In SMEs there are fewer employees and therefore a simpler structure and shorter communication lines. The pressure to survive is also more severe. SMEs are characterised by financial fragility and instability, which makes the enforcement of health and safety standards difficult. Health and safety requires resources and expertise. Since SMEs often do not have the funds or capacity to have employees trained in health and safety matters and often do not have the expertise to address safety hazards or to implement safety systems, health and safety issues are often handled by the owner

of the business, who is also responsible for running and managing the day-to-day operations of the business (Kelloway & Cooper 2011:1&27). Historically, incident prevention programs were perceived as being too costly to implement, especially for SMEs, but this perception has changed. Today the view appears to be that incidents are too costly and that incident prevention actually results in monetary savings.

Workplace incidents cause more than 10 000 deaths in the USA yearly. Not only are lives lost, but enormous amounts of money as well. The costs of incidents include lost wages, medical expenses, insurance, fire-related losses, damage to assets, and indirect costs such as first-aid and a decrease in production. By improving health and safety in the workplace and thus reducing fatal incidents, productivity in SMEs is enhanced (Jackson, Schuler & Werner 2011:474-502).

According to the Annual Report of the South African Compensation Fund for the financial year ending 31 March 2011, a total of 329 091 compensation benefits were processed to the value of R801 million, and a total of 868 284 medical benefits were processed to the value of R2.2 billion. For the year 2010/2011, 33 845 compensation claims and 245 966 medical claims were processed. Unfortunately this does not reflect the breakdown for claims received by the Compensation Fund (Compensation Fund 2011:16). Although there are no recent statistics available in South Africa, these benefits and claims give some indication of the real picture, which points to a large number of incidents in the workplace. The iron and steel, construction, agriculture, food, and drink and beverage sectors in South Africa have been identified as being subject to the highest number of health and safety issues and incidents countrywide. These four sectors make up 47% of the workplace injuries and fatalities reported to the inspectorate of the Department of Labour (Haskins 2008:Internet).

Kheni, Gibb and Dainty (2010:1104&1110) undertook a study in Ghana among construction SMEs and identified low literacy levels, a low socio-economic status among workers, and ignorance of health and safety responsibilities among owners or managers. These elements were found to be the key factors limiting the management of health and safety effectively. An effective structure and an enabling socio-economic environment are needed to enhance the health and safety

performance of SMEs, and proactive health and safety management as well as the work culture of SMEs need to be taken into consideration. Some of the elements, such as the low literacy levels mentioned here, are also present in South Africa (Newton 2012:Internet), and could probably result in the same constraints as they have done in Ghana.

According to the Occupational Safety and Health Administration (OSHA) in the United States, the main or primary indicator of safety performance is the incident rate, which indicates the frequency of occurrences and the severity of incidents. This indicator is used worldwide and also in South Africa. Recordable incidents (incidents that OSHA deems to be recordable under its recordkeeping regulations) include all work-related deaths, illnesses, and injuries that result in a loss of consciousness, restriction of work or motion, or permanent transfer to different jobs within the company, or that require some type of medical treatment or first-aid (Bidassie, McGlothlin, Goh, Feyen & Barany 2010:420-421).

Incident rates tend to focus on the negative issues in a safety system rather than on what is positive or right about a system. Still, many companies use it as the primary indicator of safety performance as it is fairly easy to calculate and can be used to draw comparisons between companies and economic sectors (Incident rates 2011:Internet). Measuring safety would highlight safety problems and would hopefully lead to SME owners taking the kind of corrective action that could decrease the incident rate.

2.2 Decreasing the incident rate

Sound safety management systems and effective communication could decrease the incident rate in any business. A study done by Akpan (2011:159-163) in developing countries in Africa revealed that management policy in these countries does not yet properly address the health and safety of employees. It was found that there is a significant correlation between effective health and safety management and improved enterprise performance.

Some employees are directly involved in dangerous activities, and providing a safer working environment could improve their work behaviour and strengthen their trust in

management. Involving employees in decision-making processes could promote their sense of belonging in the company and improve employee-management relationships and trust. Not only employees' safety needs would be satisfied, but also their need to belong and to participate in work-related matters. Reducing the incident rate not only saves lives, but also saves on costs such as hospital bills and compensation paid to families, thus making the enterprise more profitable and competitive. Akpan (2011:164) recommends developing and implementing a health and safety policy, involving employees in decision-making processes regarding safety issues, training employees in safety issues, identifying hazards in specific jobs, creating safety awareness among employees, and providing a safe working environment.

Nohammer, Schusterschitz and Stummer (2010:107) state that, in order to achieve the acceptance and participation of employees, an organisation should realise the importance of keeping employees informed regarding planned program initiatives and communicating information about these in a positive, motivating manner. Organisations should recognise that workplace health promotion (WHP) programs should be tailored to the needs of employees and should also be easily accessible. Employees are more likely to participate in such programs if their interest and expectations have been aroused, and organisations should try to offer activities that are financially attractive, less time-consuming and easy to use. A participatory approach accompanied by mutual respect and transparency could increase the probability that employees will participate in WHP programs.

Modern industries require a simple, user-friendly management system with regard to safety. SMEs could benefit from using a voluntary protection program for safety and health management, since it promotes employees working with employers in analysing worksites and preventing hazards. The application of this programme could reduce injuries and illness by approximately 46% (OSHA Quick Takes 2009:Internet). Continuous improvement can be ensured by using a goal-based management approach; however it would require that regulations move towards being performance-based. The complexity of these management systems and their functions depend on the safety, health and environment (SHE) management

requirements of each country. Medium-sized enterprises are the most cautious in applying integrated SHE systems. In small enterprises, the functions are mainly performed by one person, who automatically includes the integration of all SHE systems.

Unfortunately organisations seem to face a dilemma concerning their employees' willingness to participate in health and safety activities and to adopt behaviour patterns that promote workplace safety. It is evident that if employees were engaged, committed and motivated, they would be more likely to contribute to the creation of a healthy, safe work environment. Most owners of SMEs do not have detailed knowledge of the operational risks of tasks performed by their employees and have little understanding of why and how incidents occur. They are therefore not able to manage risks effectively (Kelloway & Cooper 2011:8).

In 2008 a new Board of Health and Safety Environment was formed in the UK, which is developing new strategies to improve health and safety in the SME working environment. Management aids were developed to create safer working environments in the hope of decreasing incident rates. Some of these aids include check lists for risk assessment and action-oriented check lists. Since SMEs are found in such a broad spectrum of sectors and industries, some methods have been developed for specific risk factors and/or specific industries. Other methods include the implementation of better health and safety management systems and incident prevention strategies, but some of these are just too complicated for SMEs. The answer seems to lie in applying a combination of these methods and strategies within an environment of mutual trust and communication between employers and employees. Whatever the strategy used, however, the lack of resources and funds remains an obstacle to improving health and safety in SMEs (Kelloway & Cooper 2011:9).

Some of the recommendations of the US Chemical Safety and Hazard Investigation Board (CSB) regarding the DuPoint plant in Belle, West Virginia, are probably relevant to SMEs in general. It was found that failure to maintain equipment led to incidents, and that analysing potential hazards and putting preventive measures in place could prevent incidents. It was also found that there were deficiencies in the safety management systems. These deficiencies were related to maintenance,

inspections, management, incident investigation, emergency response and communication, and above all, hazard recognition. Each of the incidents were preceded by an event or multiple events that triggered internal incident investigations, however no corrective actions were taken to sufficiently prevent incidents from recurring. The CSB further recommended that the reporting and investigation policy regarding near misses should be revised and participation by all employees encouraged. Employees should report any safety and health problems and management should address minor problems before they become serious. Business computer systems could be used to schedule the required preventive maintenance of equipment used (Central Science 2011:Internet).

When employees work in dangerous areas or with potentially dangerous equipment, they should be properly trained and informed of all possible dangers. Providing them with a manual to work through by themselves is not sufficient. Safety procedures should also be enforced. Injury and illness rates in the workplace could be reduced by ensuring that employers and employees are properly informed about occupational health and safety (CCH Editors 2009:146&154).

A safe working environment requires both tangible and intangible issues to be in place. The environment must conform to safety standards, and machines and tools must be in good condition. Employees need to be trained to do the job efficiently and safely, and a safety culture needs to be established. With this in mind, behaviour-based safety should form an integral part of SME safety performance programmes. The job behaviour of employees displays how they perceive, quantify and analyse safety issues. Employees on all levels of the SME should exhibit safe work behaviour. Safe behaviour could be integrated as another safety metric in the overall safety performance programme (Janicak 2010:134-135).

In a New Zealand study, Suckling (2008:Paper) identified the following ways in which employers could motivate employees to follow safe behaviour patterns:

- The organisation must have a clear vision, its values must be explicitly defined, and a strategic plan needs to be in place.

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- The strategic plan should be based on the organisation's vision and should be aligned with the values on which the organisational culture is based, according to which safety is regarded as an important aspect.
 - Employees need to know what is expected of them, and what their role and contribution in the organisation are.
 - In order to realise the goals of the organisation, management systems should comply with the external standard and should provide employees with a clear conception of how processes are carried out.
 - The organisation must make an effort to invest in the development of employees' capabilities and in on-the-job training, and should encourage and facilitate self-improvement programs.
 - The organisation should encourage employees' involvement in decision-making and request their input.
 - Organisations should also strive to provide sufficient benefits, measure safety in order to determine the current situation and what needs to be improved, establish an effective communication strategy, exhibit creativity in managing safety, ensure that top management displays leadership behaviour, and improve recognition and reward programs.

Although occupational injury and illness incident frequency rates are decreasing, the serious injury rate has not decreased. This means that major changes need to take place in order to reduce the serious injury rate. This can only be accomplished by the application of effective health and safety programmes in the workplace (Manuele 2008:ix-x,5-9). These incidents, property-damage incidents and minor injuries take place before a major injury occurs, so when one serious injury is reported, it implies the occurrence of all these other conditions as well. Unfortunately, while many SME managers and owners do attempt to adhere to safety regulations and to guard against injuries, fatal injuries still occur.

2.3 Fatal injuries

According to Kelloway and Cooper (2011:17-19) there is strong evidence of a high incident risk in SMEs, especially with regard to fatal and other serious incidents. The

SMEs running the highest risk appear to form part of the agricultural, construction, wood and printing industries. However, not much research has been conducted to determine the reasons for the higher risk factors.

In the USA, an average of 190 ground maintenance workers were fatally injured at work every year during the period 2003–2008. All but one per cent were males and the majority were between the ages of 35 and 54. These fatalities were mostly related to transportation, followed by contact with objects and equipment, falls and exposure to harmful substances (Pegula & Utterback 2011:542-543). In 2007 a total of 5 657 work fatalities and an estimated 4 million nonfatal occupational injuries and illnesses were reported in the USA among workers in the private sector. It was found that, although organisations were aware of most safety factors, they remained slow in taking corrective action to ensure the safety of workers. It was only after an incident had happened that organisations tried to solve the problem; they were therefore being reactive instead of proactive (Institute of medicine and national research council of the national academies 2009:Internet).

A large number of economically active workers are lost through occupational injuries and diseases. According to Mardon (2010) this number amounts to about 5% of the South African gross national product (GNP). Despite global efforts to address OHS concerns, an estimated 2 million work-related fatalities and 330 million work-related accidents still occur each year worldwide (ILO 2009). More recent statistics on workplace fatalities in South Africa could not be found.

3 RESEARCH OBJECTIVES AND METHODOLOGY

The main objective of the study being reported on here was to determine the incident rate in SMEs in South Africa.

The secondary objectives were to:

- Establish the incident and serious-injuries rates per year.
- Determine the incident investigation process that SMEs are following.
- Identify the main reasons why incidents happen in the workplace.
- Make suggestions on how to decrease the incident rate.

The empirical study of the present OHS situation at SMEs in South Africa focused on those SME owners who are members of the Confederation of Employers of South Africa (Cofesa). At present Cofesa has 6 672 members. Cofesa is primarily a professional service organisation of business advisors in different areas of business. The choice of Cofesa is based on the fact that this was the only structured, comprehensive group available to the researchers. It is acknowledged that the use of the Cofesa list could probably skew the research towards a specific target group.

Descriptive research was used to obtain information concerning the current status of the safety situation in the SMEs. The respondents were interviewed telephonically, making use of a random sampling technique. The data were collected by means of computer-aided telephonic interviewing (CATI) using questionnaires with a pre-determined set of questions. This form of interviewing can be described as the use of computers to automate the key activities of a telephone-interviewing facility. A total of 1 222 calls were made, and once a total of 200 questionnaires had been completed, the survey was discontinued. Two hundred cases were considered a sufficient sample (3% of the Cofesa population) for the purpose of this study. The questionnaire was designed with the objectives of the study in mind. The researchers made use of a range of question types, which included open-ended, closed, dichotomous and multiple-choice questions.

The questionnaire was divided into the following distinct areas of investigation: screener section, demographics, compliance with legislation, shortcomings, safety education and training, and incident rate. The term "incident" was used throughout the questionnaire, as according to the Occupational Health and Safety Amendment Act 181 of 1993 the term includes "accidents". This is also the term most commonly used in health and safety issues and in industry. The study relied exclusively upon the views of the respondents. The type of data gathered could be described as a combination of quantitative and qualitative. The type of analysis was statistical, and it was summarised in order to draw conclusions. A final error check was carried out by comparing the number of entries on the original with the copied data. There were no incomplete questionnaires.

Regarding ethical considerations, the authors have an agreement with Cofesa whose database was used. The results of the research will be presented to either to the CEO (Advocate Hein van der Walt) and top management, or to the entire group at a function where all the members are invited. This gives Cofesa the feedback of what was done and informs them of the situation within their businesses. Permission to do the research was granted by Cofesa before the research was conducted. The respondents were informed that the survey would be done anonymously, that the responses would be treated as confidential, that the results of the study would be used for academic purposes only.

4 LIMITATIONS OF THE STUDY

Although the Cofesa group is probably not representative of the general SME market in South Africa the choice of Cofesa is based on the fact that this was the only structured, comprehensive group available to the researcher. It is acknowledged that the use of the Cofesa database could probably skew the research towards a specific target group. The research findings of this study are valid and reliable for the SME owners who are members of Cofesa.

The benefit of the study however lies in the fact that it provides an indication of the safety situation in some SMEs in South Africa. It provides a framework of reference, a guide and a measure to compare the results of future studies on safety related issues and gives an indication of the situation that probably exists throughout all SMEs in South Africa.

5 RESULTS AND DISCUSSION

The findings and results are subdivided into the following sections: characteristics of participating businesses, incidents and injuries, the incident investigation process, causes of incidents in the workplace, and suggestions for decreasing the incident rate.

5.1 Characteristics of participating businesses

The majority of respondents interviewed (70%) were the owners of the businesses. This positively indicated that the information provided came mostly from informed representatives. The majority of respondents were white (90%) males (64%). The age

group of the largest number of respondents was 31–45 years (49%). Nearly half of the respondents (46%) had a tertiary qualification – at least a three-year diploma or degree. While 34% of the SMEs participating in the study were located in Gauteng and 24% in the Free State, all the other regions in South Africa were also represented, although not proportionally. The respondents were mainly in retail, in motor vehicle repair services, in community, social and personal services and in manufacturing. Nearly half of the SMEs (47%) had been in existence for more than 10 years and another 25% for 6–10 years. The majority of the businesses (55%) had fewer than 10 employees, while another 37% had 11–49 employees. Only 3% had more than 250 employees.

The first stage of this study revealed that although the majority of SMEs in South Africa have an occupational health and safety policy in place, the small businesses sector is not completely convinced that the policy is effective in preventing incidents in the workplace. Most SMEs conduct a risk assessment when a hazard has been identified, follow a process of identifying hazards, and has a monitoring or review system in place (although it is not always formal in nature) to follow up on identified hazards and to ensure they are corrected. They report that, when safety committee meetings are held, many of the appointed members do not attend them. There are even a number of SMEs who never hold such meetings.

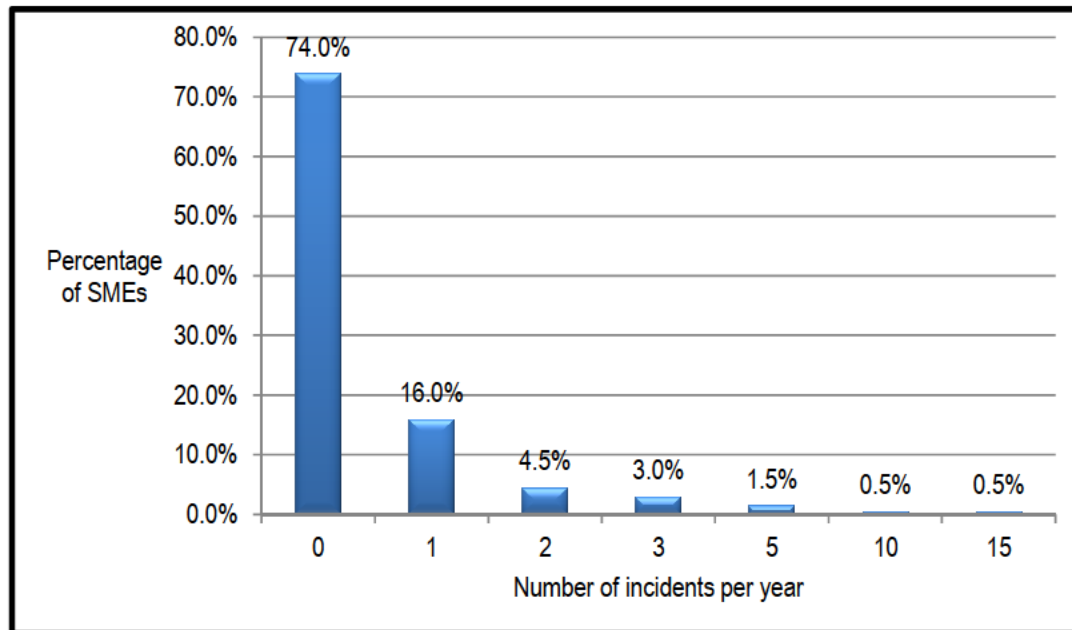
The two main reasons for not complying with legislation are that the respondents did not feel that they needed to comply, and that it did not seem important enough to them. Training is mostly done in-house, and respondents do not seem to recognise the importance and need for formal training. The second stage of this study covered incidents and serious injuries, the incident investigation process and causes of incidents in SMEs.

5.2 Incidents and serious injuries

In total, 74% of the small businesses reported a zero annual incident rate (Figure 1). A further 16% reported an average of one incident annually. A smaller percentage of SMEs reported more than one incident per year, and 0.5% of the SMEs reported as many as 15 incidents per year.

To determine and measure the strength of the association of the variables, a proportional reduction of error (PRE) measure known as "lambda" (symbolised by the Greek letter λ) or as Goodman-Kruskal lambda was calculated. Lambda, a measure of association, reflects the proportional reduction in error when values of the independent variable are used to predict values of the dependent variable.

FIGURE 1: NUMBER OF INCIDENTS PER YEAR



Source: Authors' own compilation

Lambda was used to determine and measure the strength of the relationships between the following variables:

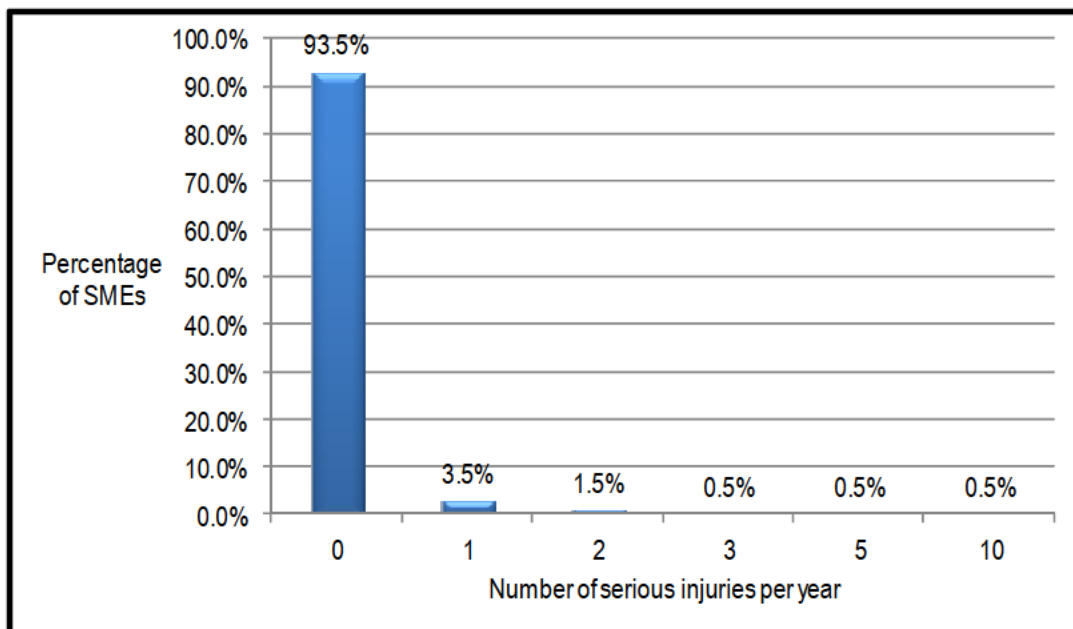
- The incident rate and the level of education of the owner/manager.
- The incident rate and the size of the business.
- The incident rate and the business sector in which the business is operating.
- The incident rate and the province in which the business is located.

By means of inferential statistics it was determined that the level of education of the owner/manager, the size of the business and the business sector within which the business is operating did not seem to have any significant effect with regard to incident rates of the Cofesa survey. However, the majority of incidents occurred in

the transport, storage and communication; manufacturing; electricity, gas and water; and agriculture sectors, while the sectors with the lowest incident rates were finance and business services; wholesale trade, commercial agents and allied services; and community, social and personal services. Although the severity of incidents probably varies, incidents do occur in all types of businesses. The province in which the business is located, however, does seem to affect the incident rate with regard to the Cofesa survey. The provinces where the incident rates were highest were the Northern Cape, the Western Cape and Mpumalanga.

Although the majority of SMEs (93.5%) indicated that no serious injuries had been reported, there were a number of SMEs who reported more and even 0.5% who reported 10 serious injuries per year (Figure 2). The majority of serious injuries occurred in the electricity, gas and water; manufacturing; and mining and quarrying sectors.

FIGURE 2: NUMBER OF SERIOUS INJURIES PER YEAR



Source: Authors' own compilation

More than a quarter (26%) of the SMEs in the sample reported that they had had at least one incident and 6.5% at least one serious injury per year.

5.3 The incident investigation process

To determine what investigation processes SMEs follow when investigating incidents, they were asked a number of specific questions. Table 1 shows the questions as well as the percentages of responses.

TABLE 1: THE INCIDENT INVESTIGATION PROCESS

Questions	Yes	No	N/A
Are all incidents investigated at your workplace?	89%	10%	1%
Are all near misses investigated at your workplace?	77%	17%	6%
Is the focus on finding the root causes during incident investigations?	76%	15%	9%
Is recommended corrective action identified during investigations?	78%	12%	10%
Are records of all injuries kept?	85%	15%	0%
Have workers been instructed to report all injuries?	98%	2%	0%

Source: Authors' own compilation

The number of times the workplaces were inspected, ranged from once a week to once a year, and in a few cases no inspections were carried out. The number of inspections did not seem to have affected the incident rate, however. As many as 10% of incidents and 17% of near misses were never investigated. This implies that the causes of the incidents and near misses were never determined, and that nothing was done to prevent similar incidents from recurring. Such situations could escalate and result in serious injuries and even deaths. In 76% of cases where incidents were investigated, an attempt was made to determine the root cause of the incident.

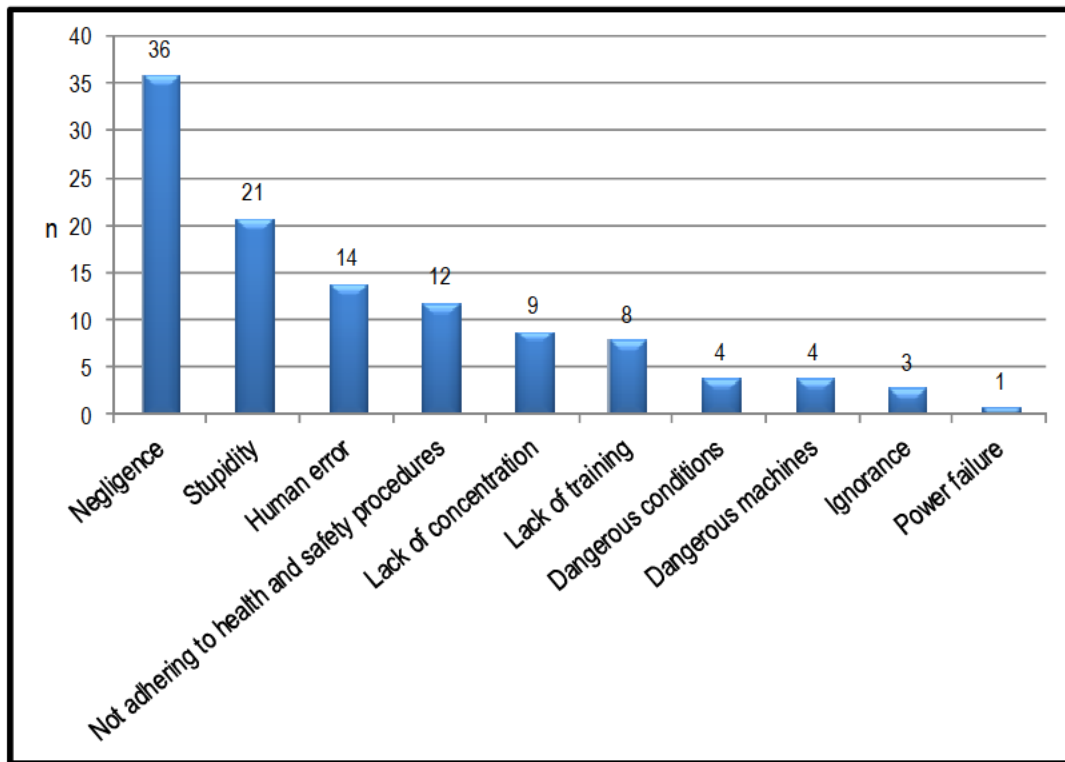
Unfortunately the researcher could not establish what had occurred in the remaining 24% of such cases. Almost all workers (98%) had been instructed to report incidents. There could be a number of reasons for this percentage being so high. Employees are compensated when they are injured at work and, if employers do not keep a record of incidents, employees might claim for injuries sustained elsewhere. Employers are also held liable for injuries sustained in the working environment.

5.4 Causes of incidents in the workplace

Figure 3 shows the main causes of incidents in the workplace as reported by respondents. As can be seen, negligence seems to be the biggest problem, followed by "stupidity", human error and non-adherence to health and safety procedures. Due to differences in respondents' perceptions and manners of expression, the terms

negligence, stupidity and human error seem to have been used interchangeably. This only emphasises, however, that the main cause of incidents seems to be human error. A number of the respondents did not answer this question due to the fact that they had had no incidents and that there were therefore no causes to report on.

FIGURE 3: CAUSES OF INCIDENTS



Source: Authors' own compilation

5.5 Suggestions for decreasing the incident rate

Incidents will always be part of society and the workplace, but employers and employees have to do whatever is humanly and financially possible to decrease the incident rate. As shown in Table 2, the main suggestions put forward by respondents with a view to decreasing the incident rate were training and ongoing education of staff, adhering to all safety precautions, being careful at all times, increasing awareness and constantly reminding people of safety precautions. Other minor suggestions were being more proactive, involving management, monitoring staff and putting up more signs.

TABLE 2: SUGGESTIONS WITH A VIEW TO DECREASING THE INCIDENT RATE

Suggestions	Percent
Educate staff (ongoing training)	32%
I don't know / nothing	22%
Adhere to all safety precautions / Be careful at all times	14%
Increase awareness / Constantly remind people of safety precautions	12%
Prevent problems before they happen / Be more proactive	3%
Ensure they are all reported and handled efficiently / Involve management	2%
Monitor staff	2%
Put up more signs	2%

Source: Authors' own compilation

These responses regarding decreasing the incident rate correspond to those of previous studies done in Africa by Akpan (2011:159-163), in New Zealand by Lamm, Legg, Battisti, Harris, Laird, Massey & Olsen (2008:Paper) and in the USA by Romano, Fosbroke and Ruff (2008:46-48) as well as by Suckling (2008:Paper), also in New Zealand. Additionally, Väyrynen, Hoikkala, Ketola & Latva-Ranta (2008:15-19) suggest creating an environment of mutual trust and communication between employers and employees, and complying with safety standards, ensuring that machines and tools are maintained in good condition.

6 CONCLUSIONS AND RECOMMENDATIONS

Our investigation of the incident rate at SMEs in South Africa revealed that 26% had reported at least one incident, and that 7% had had at least one serious injury per year. Although one serious injury per year may not seem like cause for concern, the disturbing fact regarding these findings is highlighted when they are compared to the incident ratio study. Although the incident investigation process is followed by most, there are still too many who do not follow any such process.

Ten percent of incidents and 17% of near misses were not investigated. This means that the causes were never determined and nothing was done to prevent similar incidents from recurring. Such situations could therefore escalate and result in serious injury and even death. In 76% of cases where incidents were investigated, an attempt was made to determine the root cause of the incident. Almost all workers (98%) had been instructed to report incidents. One reason for this percentage being so high could be that employees are compensated when they are injured at work and, if employers do not keep a record of incidents, employees might claim for injuries sustained

elsewhere. Another reason might be that employers are held liable for injuries sustained in the working environment. Human-related errors seem to be the main reason for incidents, and respondents agree that educating staff and constant communication could decrease the number of incidents in the workplace.

The level of education of the owner/manager, the size of the business and the business sector within which the business is operating did not seem to have any significant effect with regard to incident rates of the Cofesa survey. The province, in which the business is located, however, does seem to affect the incident rate.

The following recommendations could be considered to decrease the incident rates in SMEs:

- A culture of safety needs to be established. Such a culture is commonly comprised of the values, attitudes, norms, beliefs, practices, policies and behaviour of employees regarding all safety issues. Employees should adhere to all safety precautions and be watchful all the time. This will require commitment from top management as well as throughout the entire organisation.
- SME owners or managers should keep employees informed about all relevant health and safety regulations as set out in the South African Occupational Health and Safety Act 1993. This Act also requires the employer to bring about and maintain, as far as is reasonably practicable, a work environment that is safe and without risk to the health of employees.
- The cornerstone of a successful safety program is the ability to put mechanisms in place to identify hazards, monitor progress in response to safety programs, and develop a safety management system.
- Management should provide the resources to protect the operations and assets of the enterprise and in so doing be proactive in preventing incidents as far as possible.
- Depending on the size of the enterprise, either a safety coordinator or a practitioner should be appointed, and owners/managers should assist safety practitioners with regard to safety issues. Safety committees should be formed when SMEs reach a specified size.

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- Occupational safety and health agents should personally visit SMEs and do regular follow-ups to improve safety standards. A phone call is not sufficient when it comes to the safety of workers (Shapiro 2011:36).
 - Employees should be trained and educated in safety-related issues on a continuous basis.
 - Using references to safety in advertising campaigns became a new trend a few years ago. The manufacturers of Volvo began this trend, and soon other companies followed. One effect of advertising, especially if the focus is on image advertising, is that it makes safety an integral part of the perception of the product being advertised (Sutherland 2008:10).

Injuries occur and employees lose their lives, which mean that SME owners and managers need all the help they can get to help minimise the incident rate. Although the above recommendations are generic, the special nature of the various industries and disciplines SMEs represent makes it difficult to propose general safety-related suggestions. Little research has been done on occupational health and safety in SMEs, and it can be assumed that the SMEs in each industry need specific interventions, which still need to be researched (Cooper & Burke 2011:39).

While a number of classical safety risks remain, globalisation is generating new forms of work and technology, which in turn lead to new safety risks arising. Transnational collaboration in maintaining, improving and transferring available knowledge on occupational health and safety issues will play a fundamental role in the health and safety of future SMEs. We need to do whatever we can mentally, physically and financially to create a safer working environment and to ensure that fewer lives are lost, not through violent crime, but through an unsafe working environment.

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