

# HUMAN CAPITAL EXPENDITURES AND COMPANY SALES TURNOVER

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## Abstract

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Employee skills development, health and safety are key human capital expenditures to enhance company productivity and profitability. Therefore, this research evaluated the relationship between human capital expenditures and company turnover. The study was deemed necessary to evaluate how employee's productivity can be improved in the existing companies through human capital investment, which will result in good performance towards the firm's profitability. The research inclined on two major objectives - to analyse the relationship between employees' health and safety investment and turnover, and to evaluate the relationship between employees' skill development investment and turnover. Applying a quantitative approach, the correlation statistics was used to analyse the secondary data collected over a period of 5 years (2011-2015) from the archives of selected companies in the JSE SRI. Findings from statistical analysis revealed that for objectives 1, P-value was 0.05, which signifies a relationship between health and safety investment and turnover. This also implies that the lesser the Lost time Injury frequency rate due to health and safety the higher the company turnover. For objective 2, the P-value was less than 0.05, which implies that the more companies invest on skills development of their workforce the higher the turnover. Based on these findings, the paper recommends that companies may expedite strategic investment in employees' health and safety and skills development to enhance growth in corporate sales turnover.

**Keywords:** Firm Turnover, Skills Development, Health And Safety, Human Capital Investment

## 1. INTRODUCTION

Human capital investment in the firms involves the expenditures the employers incur on their employees in order to develop their skills and also provide the healthy working environment. Research has shown that the more employers invest in human capital due to a higher price of skills, the more it increases the return to use human capital intensively which also increases the return to investment (Murphy and Topel, 2014).

Human capital expenditures involve costs, which the firms hope to achieve a return in the future (Blundell et al., 1999). Investment in human capital means putting in money for capacity building and providing a good environment of employees by the employer. According to Bosma et al. (2004), it is commonly believed that investments in human and social capital improve the performance of employees in an organisation. The performance of the firms in South Africa relates to the sales turnover, profitability, net profit and share

price increases. Most of the firms' performances depend mainly on the performance of the employees. This is why previous researchers such as Huselid (1995) evaluated how employees' improvement initiatives influence economic performance.

Due to recent decline in economies of various countries, human capital has received wider consideration (Marimuthu et al., 2009). It has been pertinent to capacitate human capital to improve corporate and economic growth through investment in time and capital in human capital (Marimuthu et al., 2009). Huselid, Jackson and Schuler (1997) found a positive relationship between effective HR management and productivity of the workers, cash flow, and the value of the market. Posthuma et al. (2013) also proves that the performance of an organisation can be improved by human resource management which influences human capital investment by providing relevant development and training to their workers and further motivates their talents.

One of the key responsibilities of Human Resource Management practices is staffing and training of employees and this is used in the organisations to achieve higher productivity; and firms that engage in staff training and development have been found to outperform others who do little regarding staff development (Posthuma et al., 2013).

Although it is costly to invest in staff training as imagined by some companies, but the gains of investing in the costly venture of staff training might be beneficial to companies where staff training is outlined. This research therefore tries to analyse whether investment in employee development might improve sales turnover of a company

Based on the foregoing research introduction, the following research questions were examined:

- What is the relationship between employee health and safety and firm turnover?
- How is the relationship between employee skills development and firm turnover?
- In order to answer the above research questions, the objectives of this research were:
  - To evaluate the relationship between employee health and safety on firm turnover.
  - To examine the relationship between employee skills development on firm turnover.

The rest of the paper is structured as follows, the next section of paper engages in a brief review of relevant literature. This is followed by the methodology section, data analysis and interpretation. The last section makes conclusion and recommendations.

## 2. LITERATURE REVIEW

### 2.1. Employee Health and Safety and Sales Firm Turnover

Previous research has identified that employee wellness is one of the factors that contribute to improved productivity in the workplace (Zhang et al., 2014). In another related research, Rose et al. (2013) stated that the company's performance can be affected by the employees' working environment which will result to the poor decision making by management. Fabius et al. (2013) supported the perception of employers complying on health and safety issues of employees within the work environment will result in a good business, and they further states that engaging in efforts to promote wellness of employees by providing a good working environment, will reduce the health risk of employees. According to Rose et al. (2013) the work environment has economic impact on core business such as productivity of employees, quality of the work, absentees and turnover (see also Abrahamsson, 2000). Implementation of approved health and safety management policies and legislations in the workplace will help organisations to comply with health and safety issues and this will avoid injuries and health risk to employees, (Fernández-Muñiz et al., 2012).

The occupational accidents within the workplace affect the human capital and also the productivity and competitiveness of the firms (Fernández-Muñiz et al., 2009). Furthermore, Kaminski (2001) find that new organisational practices are implemented by managers to improve

firm performance, but they neglect the side effects. It found that the higher injury rate is associated with lower productivity. Landsbergis et al. (2014) indicate that changes in employment conditions have led to the increase in job insecurity and organisational work hazards over the past 30 years which plays a major role in creating and sustaining occupational health differences. The roles and responsibilities of every organisation is to provide their employees with good working conditions and environment to avoid risks, hazards and diseases, (Quartey and Pupilampu, 2012).

### 2.2. Employee Skills Development and Firm Sales Turnover

Employee skills development and training are courses designed to assist individuals to develop skills that will be useful in their jobs (Blundell et al., 1999; and LI, 2014). Huselid (1995) indicates that employees' improvement practices in an organisation have economical and statistical impact on outcomes of intermediate employee and measures of financial performance. Human asset investment in the firm is a strategy of working towards high performance and productivity (LI, 2014). Investment in human asset affects the three performance measurements which are survival, profits, and generated employment significantly and substantially (Bosman et al., 2004). It is widely believed that organisation's survival and success dependent on reaction of employees towards their work activities as is the target of achieving the mission and strategy of the firm (Collins and Smith, 2006).

The previous human resource researchers argued that companies can effectively influence the behaviour of employees through different human resource practices, (Huselid, 1995). Collins and Smith (2006) in their study tested a theory on how human resource can affect the organisational social climate conditions by facilitating knowledge management and firm performance.

Collins and Smith (2006) also states that commitment in human resource practices, organisational social climate and exchanged knowledge lead to higher revenue by improving sales in manufacturing firms which in return increases firm performance and growth.

Currently it has been agreed generally that training is an important tool to help companies to develop competitive advantages based on their human resources to maintain their sustainability, (Aragón-Sánchez et al., 2003). There is link between organisational performance and human resource strategies which outlines investing in human capital; researcher have outlined the human resource incentives like training of employees and job security which pays and builds trust by encouraging commitment by employees (Batt, 2002; and Huselid, 1995). Huselid (1995) stated that an increase in market performance and financial performance is related to human capital which is the combination of knowledge, skills and capabilities of the employees to succeed in working. Therefore, the researchers clearly indicate that brand value and human capital are the most important assets in the companies and management should invest in these assets to ensure the sustainability of the company.

The theory of economics assumes that firms investing more in training of employees anticipate a high return in productivity and profitability (Georgiadis and Pitelis, 2014). According to Elnaga and Imran (2013), employees are the blood stream of any business and top management have realised the importance of investing in employee training and development to improve their performance.

### 3. METHODOLOGY

The data panel for this study is comprised of all the companies listed in the Johannesburg Stock Exchange (JSE) Socially Responsible Investment Index (SRI). This data panel was chosen as the JSE has identified these companies as adhering to socially responsible business practices.

The purposive sampling is one type of non-probability sampling, in this method the researcher relies on the experience and results of the previous research with the intention to obtain a sample of study for analysis in such a manner that the sample obtained may be regarded as being of the relevant population (Welman et al., 2005; and Robson & McCartan, 2016). This research will use a purposively sampling method. It is believed that Johannesburg Stock Exchange Socially Responsible Investment Index contains companies that have been certified as socially and environmentally responsible, therefore the sample size of this research was purposively determined as the best socially and environmentally performing companies by the JSE. Hence the sample size for this study comprised the first nine best performers in the 2014 JSE Socially Responsible Index.

### 4. DATA ANALYSIS

#### 4.1 Data Collection

A Data collection method is the technique of gathering research data; this may be done through primary sources such as observation, interviews or questionnaires or from secondary sources such as from documents or archives (Robson & McCartan, 2016). Data collection methods have its disadvantages and drawbacks, furthermore what counts as an advantage for one may qualify as a drawback for another (Welman and Kruger, 1999; Welman et al., 2005).

In this research, data collection was through documentary, archival and secondary collection method. The researchers used secondary data collection approach, as data were available in the annual integrated reports of sampled companies. The data, which were collected, were the relevant

research variables: employee health and safety expenditure; employee's skills development expenditures and companies' turnover.

#### 4.2 Data Analysis Technique

Data analysis is a process where the data collected in the research are analysed and interpreted to provide a feedback on the tenability or unitability of the original formulated research questions or hypothesis (Welman et al., 2005). Correlation analysis is used to describe the relationship between variables; it estimates the degree in which changes in one variable are related to changes in another variables (Welman et al., 2005). Data analysis in this research was quantitative and correlation analysis was used as the researchers measured the relationships between variables (Health and safety and skills development expenditures) with one variable (firm turnover). This statistical analysis employed the Pearson correlation statistic and the formula according to Lane (2015:177) is:

$$r = \frac{\sum xy}{\sqrt{\sum x^2 \sum y^2}}$$

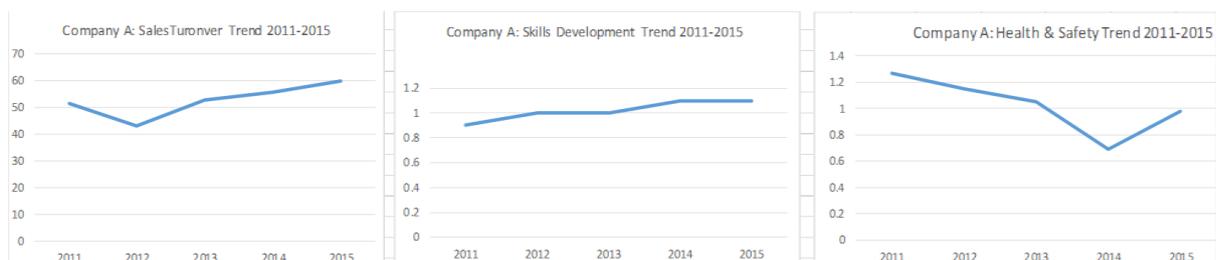
Research data was collected on employee skills development expenditures, Lost Time Injury Frequency Rate on health and safety and firm turnover from companies' audited annual integrated reports and financial statements of best performers as listed in the JSE SRI achieves of 2014 and companies were selected based on availability of the information. Sales turnover and expenses on employee skills development were collected from both audited financial statements and annual integrated reports and due to unavailability of expenses on employee health and safety, Lost Time Injury Frequency Rate (LTIFR) was used which measured all injuries sustained by employees per million man hours worked, meaning that the injured party is unable to return to work on the next shift. The collected data are analysed below.

Data analysis was done through yearly pictorial performance analyses of selected companies and correlation Statistics in compliance with the research objectives stated earlier.

#### 4.3 Analysis and Interpretation

Below is the yearly pictorial performance of company A, B, C, D and E for a period of 5 years starting from 2011 to 2015, sourced from individual company's integrated annual reports and financial statements.

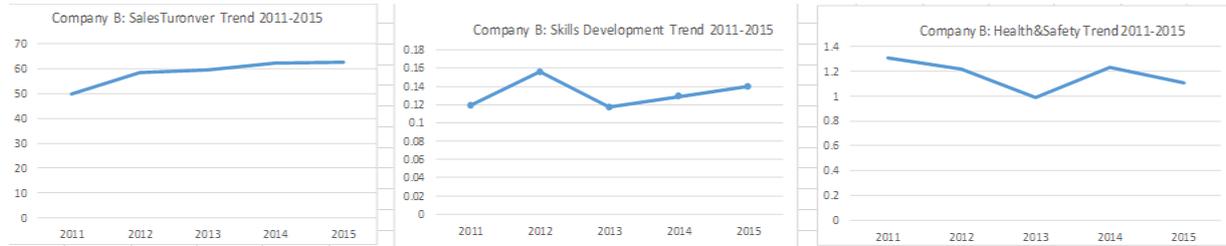
Figure 1. Pictorial performance analysis for company A



The data collected for company A on sales turnover, skills development and health and safety for a period of 5 years from 2011 - 2015 as indicated in the above figure indicate that there is a significant relationship between sales turnover as the independent variable and skills development and health and safety as the dependent variables. This implies that when the Lost Time Injury Frequency Rate decreases, the sales turnover increases. But during the first year the

company had a challenge as the sales turnover decreased while the Lost Time Injury Frequency Rate was also decreased. The same challenges were also faced when the cost of employee training increased while the sales turnover decreased. However, the relationship between sales turnover and employee skills development shows a positive relationship, when the cost of employee skills development increases there is also an increase in sales turnover.

Figure 2. Pictorial performance analysis for company B



The data collected for company B on sales turnover, skills development and health and safety for a period of 5 years from 2011 - 2015. The above figure indicates that there is significant relationship between sales turnover as the independent variable and skills development and health and safety as the dependent variables. This implies that when the Lost Time Injury Frequency Rate decreases, the sales turnover increases. During the year 2013 the Lost

Time Injury Frequency Rate increased but the sales turnover still increased. Also during the year 2012, the costs of employee skills development increased but the sales turnover increased slightly. However, the relationship between sales turnover and employee skills development shows a positive relationship, when the cost of employee skills development increases there is also an increase in sales turnover.

Figure 3. Pictorial performance analysis for company C



The data collected for company C on sales turnover, skills development and health and safety for a period of 5 years from 2011 - 2015. The above figure shows the positive relationship between sales turnover and employee skills development, when the skills development costs increases, the sales turnover also increases, except in the first year

where there was a decrease in costs of training with the sales turnover increasing. The relationship between sales turnover and health and safety is negative since there was a decrease in Lost Time Injury Frequency Rate while the sales turnover increased.

Figure 4. Pictorial performance analysis for company D



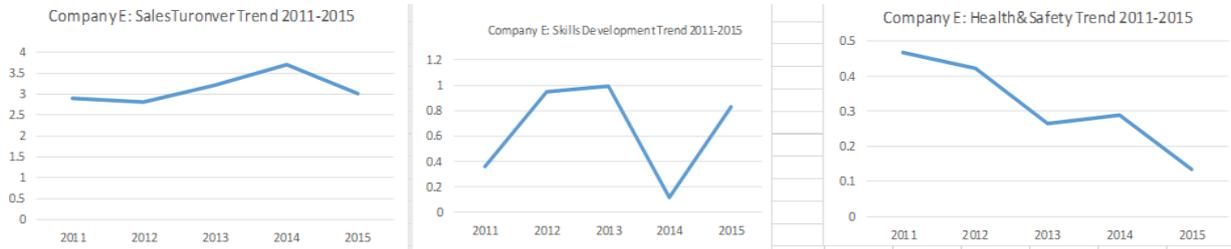
The data collected for company D on sales turnover, skills development and health and safety for a period of 5 years from 2011 - 2015. During this 5

year period, the company had challenges in sales turnover as it was dropping the whole period. However, the Lost Time Injury Frequency Rate was

also decreasing except the last year (2014-2015) where there was an increase. The employee skills development was also fluctuating during this period. Between 2011 and 2013 the costs of

employee skills development increased, and dropped in 2013 to 2014 years but again increased in 2014 to 2015 years.

Figure 5. Pictorial performance analysis for company E



The data collected for company E on sales turnover, skills development and health and safety for a period of 5 years from 2011 - 2015. The above figure indicates that there is significant relationship between sales turnover and employee skills development. Between 2011 and 2012, sales turnover decreased but the costs on employee skills development increased but it decreased between 2013 and 2014 while the sales turnover increased. There was a drop in sales turnover during 2014 to 2015 year due to the drop in employee skills development decrease in 2013 to 2014. The company also had a decrease in Lost Time Injury Frequency Rate and there was also an increase in sales turnover except in the first year (2011 - 2012) and the last year (2014 -2015), where there was a decrease in sales turnover.

The followings are the research questions:  
 Question 1: What is the Relationship between Skills Development and Sales Turnover?  
 Question 2: What is the Relationship between Health and Safety and Sales Turnover?  
 Correlation statistics:

$$r = \frac{\sum xy}{\sqrt{\sum x^2 \sum y^2}}$$

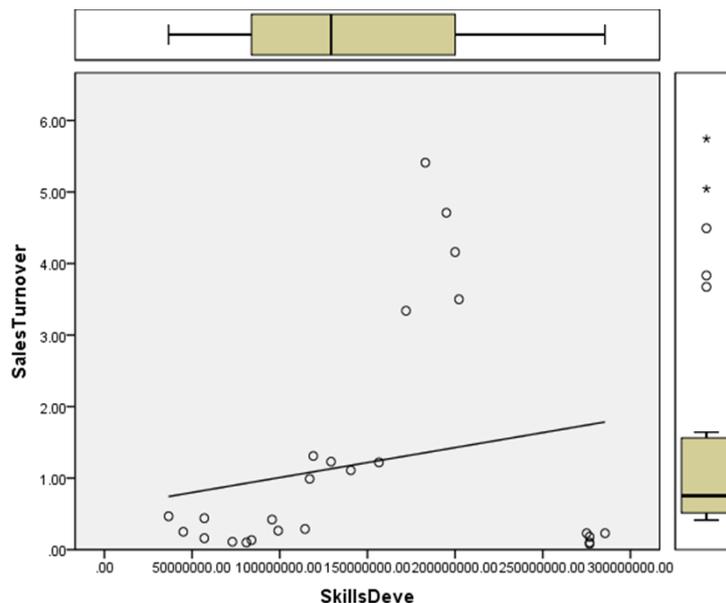
4.4. Level of Significance

The relationship is deemed significant if alpha or p value is equal to or less than 0.05 (P≤ 0.05)

Table 1. Test 1 Question 1: Relationship between Skills Development and Sales Turnover

Control Variables		Skills Deve	Sales Turnover
Health Safety	Skills Deve	Correlation	.396
		Significance (2-tailed)	.055
		df	22
	Sales Turnover	Correlation	.396
		Significance (2-tailed)	.055
		df	22

Figure 6. Scatter graph of the relationship between sales turnover and skills development



The relationship is significant at (probability)  $P=0.05$ , this indicates there is significant relationship between skills development and sales turnover. Since the correlation coefficient (0.396 or 0.40) is positive, this implies that the relationship is positive, which means that increase in skills development initiatives by the companies that have been selected would lead to an increase in sales turnover. This positive relationship is reflected in the scatter graph on figure 6. These research findings are found to be similar to the previous research results on employee skills development and firm turnover (Huselid, 1995; Li, 2014; Bosman et al., 2004; Blundell et al., 1999; Mehra et al., 2014; and Georgiadis and Pitelis, 2014). However, the findings are also found to be contrary to the previous research results on relationship between employee skills development and firm turnover, which shows a negative impact (Aragón-Sánchez et al., 2003). This is due to the fact that companies do not evaluate the effects of training on firm performance since there are different types of training. Their study found that training outside the company has a negative impact on firm performance, since the employee has to be released from his/her duties to attend the training and it will affect the productivity during that period. However, their research was done in Europe where 457 SMEs were tested using regression analysis while this study was done in South Africa where only 5 companies were tested using correlation analysis.

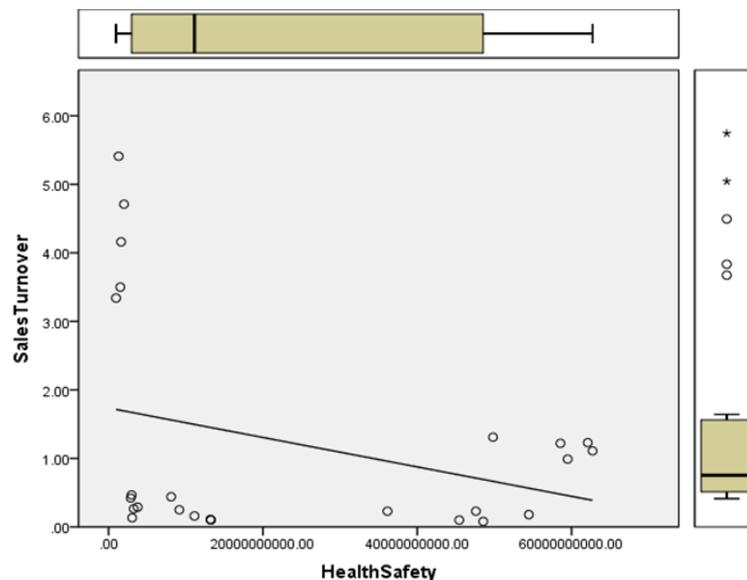
The previous researchers indicated that employee skills development increases the ability for the employees to perform their jobs, which results in improving the financial performance of the firms. Therefore, the more firms improve the skills of their workforce the more it will improve their productivity which will lead to the high firm turnover. Since this research is based in South Africa, the findings are also supported by South African Skills Development Act 97 of 1998 which guides the employers to invest more in skills development of their workforce by providing them with the relevant training to improve their productivity in the workplace and competitiveness of employers.

Furthermore, in this research, the researchers used correlation statistics to prove the relationship between employee skills development and firm turnover. The data used were for only five firms/companies which are listed on 2014 SRI index as best performers and information used was for 5 years. It is recommended that companies should develop and implement human resource management strategies which will indicate how their workforce will be provided with skills to improve company turnover. The purpose of this research was to examine the relationship between human capital expenditures and company turnover; and employee skills development was identified as one of the human capital expenditures in the company.

**Table 2.** Test 2 Question 2: Relationship between health and safety and sales turnover

Control Variables		Skills Deve	Sales Turnover
Skills Deve	Sales Turnover	Correlation	1.000
		Significance (2-tailed)	.024
		df	22
	Health Safety	Correlation	-.459
		Significance (2-tailed)	.024
		df	0

**Figure 7.** Scatter graph of the relationship between sales turnover and health and safety



The relationship is significant at  $P=0.024$ , this indicates that there is significant relationship between health and safety and sales turnover. However, since the correlation coefficient (-.459) is negative, this implies that the relationship is negative, which means that an increase in health and safety operations by the companies that have been selected might reduce sales turnover. This negative relationship is reflected in the scatter graph on figure 4.3.7. The relationship indicates that when the rate of injuries goes up in the company, the turnover decreases as the company will be responsible for health care costs and rate of absentees also goes up. This research's findings differ from previous research findings on the relationship between health and safety and sales turnover. The researchers indicate that when employers invest in employee health and safety will result in higher company turnover (Zhang et al. 2014; Rose et al., 2013; Fabius et al., 2013; Abrahamsson, 2000; and Fernández-Muñiz et al., 2012). They indicated that employees are critical to firm success and employee wellness is one of the factors that contributes to improvement of the productivity in the workplace. However, the finding are also found to be similar to the previous research results on relationship between employee health and safety, where it was proven that the relationship is negative (Fernández-Muñiz et al., 2009; and Kaminski, 2001). Their findings indicate that the lower the rate of injuries in the firm the higher the productivity. This implies that when the rate of injuries decreases it will decrease the health cost and also decrease the rate of absenteeism by the workers. However, the study was done out of South Africa and more than 5 companies were tested using regression analysis while this study tested only 5 South African companies using correlation analysis.

This difference comes as results of the fact that this research measured Lost Time Injury Frequency Rate to health and safety, hence it is understandable that the fewer the hours lost by a company the more the production of the company will be, hence in test two, Table 2 and Figure 7. It can be seen the lower the Lost Time Injury Frequency Rate the more productive the companies.

Health and safety management has a positive influence on safety performance, competitiveness and financial performance, hence the firms have to comply with good practices of safety management standards to ensure the positive productivity and to eliminate health and safety risks to employees. Furthermore, human resource management strategies have to be developed and implemented effectively.

The South African Occupational Health and Safety Act no 181 of 1993 supports the findings by stating that employers should provide and maintain a reasonably practical good working environment that is safe and without risk to the health of employees. The companies which are not complying with the act are faced with penalties which will reduce their profit. It has been proven previously that a good working environment reduces the health risk of employees and mitigates the complications of chronic diseases which can have remarkable effects on health care costs, productivity and performance. Therefore, if employers provide their employees with a good working environment, they

will avoid problems associated with absenteeism due to illness and occupational injuries. Furthermore, if employees are provided with an acceptable working environment, it will improve their productivity at their workplaces as they will enjoy to be in the workplace rather than being at their homes.

The researcher used correlation statistics to test the relationship between health and safety and sales turnover and five (5) companies from the 2014 SRI index best performers for a period of five years and the results indicated a significant relationship between the two variables. The purpose of the research was to examine the relationship between human capital expenditures and company turnover; and employee Health and Safety was identified as one of the human capital expenditures in the company. It is advisable that South African companies should develop and adopt the Health and Safety policies in line with the South African Occupational Health and Safety Act no 181 of 1993, and they should ensure implementation of, and compliance with the adopted policy.

## 5. CONCLUSION

The research set out to examine the relationship between human capital expenditures and company turnover. The objective of the research was to examine the relationship between employee health and safety on firm turnover; and to examine the relationship between employee skills development on firm turnover. The data were collected from audited annual integrated reports and financial statements for five (5) companies from the 2014 SRI index best performers over period of five (5) years starting from year 2011 to 2015 as presented in Table 1.

The quantitative approach was deemed suitable hence the correlation statistics were used to analyse the data, reasons being that the research design is positivist and measures the relationship between the two variables.

On the whole, results of statistics analysis showed that the P-value is less than 5%, which leads the researchers to conclude that within the five (5) companies there is a relationship between employee health and safety and firm turnover; and a relationship between employee skills development and firm turnover.

The relationship is significant at  $P=0.024$ , this indicates there is a significant relationship between health and safety and sales turnover. However, since the correlation coefficient (-.459) is negative, this implies that the relationship is negative, which means that an increase in health and safety operations by the companies that have been selected reduce sales turnover. However, the findings are also found to be contrary to the previous research results on the relationship between employee skills development and firm turnover (Aragón-Sánchez et al., 2003)

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The research results show the significant relationship between employee health and safety and firm turnover; and a relationship between employee skills development and firm turnover. Furthermore, the companies should eliminate the rate of injuries of their employees as it will affect their turnover positively. The more there are injuries in the workplace the higher the health care cost and this will also increase the rate of absenteeism which will lead to a decrease in turnover. These results indicate that the more companies invest in human capital the higher the firm turnover. Therefore, companies should consider development and implementation of strategies and policies on employee skills development and health and safety to improve on human capital investment which will lead to high turnover.

However, this research was done in South African companies and only five (5) companies were tested, therefore it is recommended that future research be done globally with a higher number of companies. There are also other variables on human capital investment except employee skills development and health and safety which can be used to examine the relationship between human capital expenditures and company turnover.

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