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**Gordon Institute  
of Business Science**  
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The effect of training & development and employee engagement on perceived  
business performance

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University of Pretoria, in partial fulfilment of the requirements for the degree of  
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## Abstract

Employee engagement and training & development, as a human resources management practice, has been extensively studied across the world. These studies tested employee engagement and training & developments' effect on various measures of performance. The bulk of these studies were conducted in North America over the past three decades with more studies emanating from other parts of the world for the better part of the past decade.

Studies largely found a positive correlation between these two variables and the specific measure of performance being tracked. This research seeks to determine whether the effect on perceived performance would be similar when testing employee engagement and training & development within the South African context. A quantitative approach was adopted and proved that both training & development and employee engagement has a positive result on perceived performance. The relationship between training & development and employee engagement was ambivalent.

## **Keywords:**

Training & Development, Employee Engagement, Perceived Performance

## Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

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Fabian David Manuel

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Date

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# 1. Chapter 1: Introduction to Research Problem

## 1.1 Introduction

The researcher's interest was to understand and determine whether human resource management (HRM) practices and employee engagement had an effect on a business' perceived performance. Given the scope of HRM, only one HRM practice was researched, training and development. The researcher was also interested in determining whether any relationship exists between training and development and employee engagement as well as employee engagement and perceived performance.

A vast amount of literature exists on the topic of employee engagement and correlates high employee engagement to increased performance (Whittington & Galpin, 2010). The researcher was further keen to understand whether employee engagement would still have a positive correlation to perceived performance if tested across the entire employee base of a South African company given that the vast amount of research on employee engagement and performance essentially emanates from the United States.

The research is entitled "The effect of training & development and employee engagement on perceived business performance". 'Perceived business performance was selected as a measurement as 'business performance' and 'performance' was deemed too broad of a term for the purposes of this research. Business performance and performance in general runs the gauntlet of metrics such as return on assets, return on equity, share price performance, free cash flows, net profit after tax, industry benchmarking, earnings per share comparisons, amongst various other measures. Each of these measures further serves certain stakeholders and its importance is limited to said stakeholders.

Perceived performance is the feedback that respondents give as to whether any of the variables being tested, by virtue of the questionnaire, had an effect on their performance. Perceived performance is therefore the feedback on whether a tested variable had an impact on performance, as identified by the respondents.

Self-report scores have been noted to be inflated compared to independent observer ratings (Cartwright, Daniels, & Zhang, 2008). This was taken into account relative to selecting a business performance benchmark. As noted before, given the broad scope of business performance metrics and having taken into account the potential future benchmarking of this research in terms of longitudinal studies, perceived business performance was considered as the better option and therefore selected. The term 'perceived business performance' and 'perceived performance' is used interchangeably in this research and denotes respondents' feedback around their own performance, whether it improved or not.

The rationale was that longitudinal studies would be able to benchmark perceived performance against the gauntlet of performance and business performance metrics as noted in the aforementioned. This would become possible as more South African companies start measuring the effect of training and development on perceived performance as well as the other variables as noted in 1.3 below and in the context of the research motivation noted in 1.2.

## **1.2 Research Motivation**

Previous studies on HRM practices and business performance focussed on sampling predominantly senior management (Zhang & Li, 2009). Research on the topic is also largely concentrated in the United States (Georgiadis & Pitelis, 2012) and have more recently also been conducted in China (Zhang & Li, 2009), the United Kingdom (Georgiadis & Pitelis, 2012), Europe (Nikandrou, Apospori, Panayotopoulou, Stavrou, & Papalexandris, 2008), the Philippines (Edralin, 2011) and Taiwan (Lee, Lee, & Wu, 2010).

The researcher, however, wanted to test whether sampling across the entire employee base would deliver similar or different results and do so especially given the very limited studies having been done within the South African and African context. With less than 30% of the corporate workforce being classified as engaged employees (Whittington & Galpin, 2010), the researcher was eager to understand how this research figure would present itself in the South African workplace.

Given that the subject company performed extremely well in the financial year preceding this research, the researcher was keen to analyse the company's employee base in the context of the research objectives (1.3) as well as based on other research conducted in predominantly the United States.

## **1.3 Research Objectives**

The researcher sought to test whether training and development influenced perceived business performance, whether employee engagement had an effect on perceived business performance and whether there is a relationship between training and development and employee engagement.



The main objectives of the research are essentially:

Objective 1: To determine whether there is a relationship between training and development and perceived business performance when sampling the entire staff complement of a company.

Objective 2: To determine whether there is a relationship between employee engagement and perceived business performance when sampling the entire staff complement of a company.

Objective 3: To determine whether there is a relationship between training and development and employee engagement when sampling the entire staff complement of a company.

**Figure 1: Research objectives**

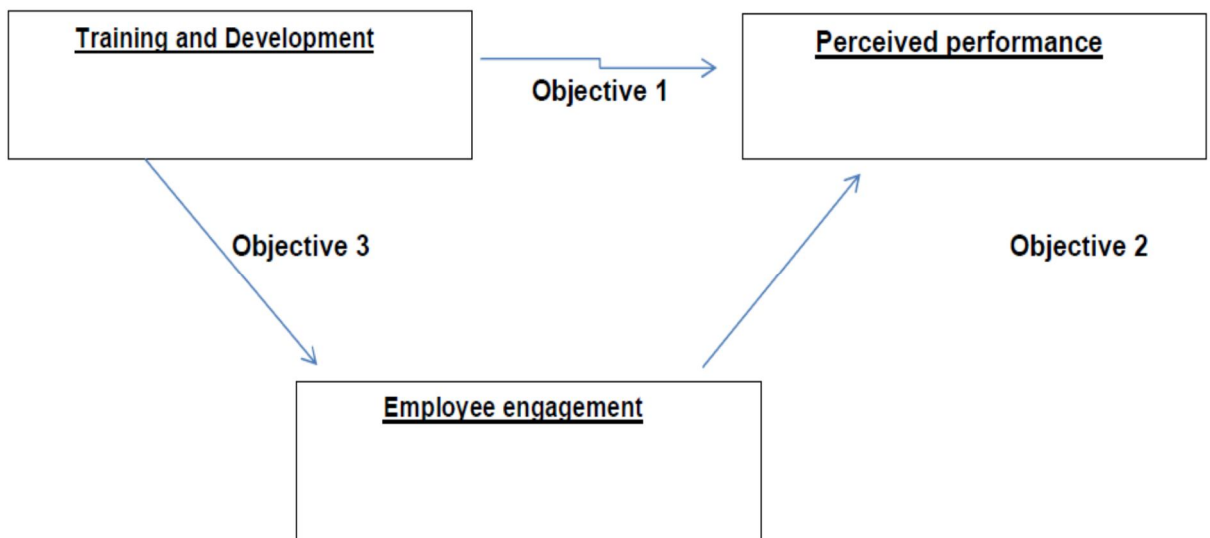


Figure 1 above diagrammatically presents the research objectives.

## 1.4 Research scope

The research was conducted at a medium-sized financial services company that is listed on the Johannesburg Stock Exchange. Quantitative research was utilised and all permanent employees made up the sample frame. An electronic questionnaire was sent to all employees that made up the sample and further details around the process, methodology and approach is detailed in chapter 4. The sample frame consisted of managerial and non-managerial staff with non-managerial and junior managerial staff making up the bulk of the employee base.

As noted in 1.2, the research is therefore different than previous research on HRM practices in that it samples the entire employee base as opposed to only senior managers. The aim of the research was to sample the entire employee base of a company and test the research objectives against this versus previous studies that merely sampled senior managers.

As noted in 1.3, the research was focussed on the two variables of training and development and employee engagement and their effect of perceived performance. The variables of training and development and employee engagement was also tested against each other. Training and development and employee engagement were the independent variables with perceived performance being the dependent variable.

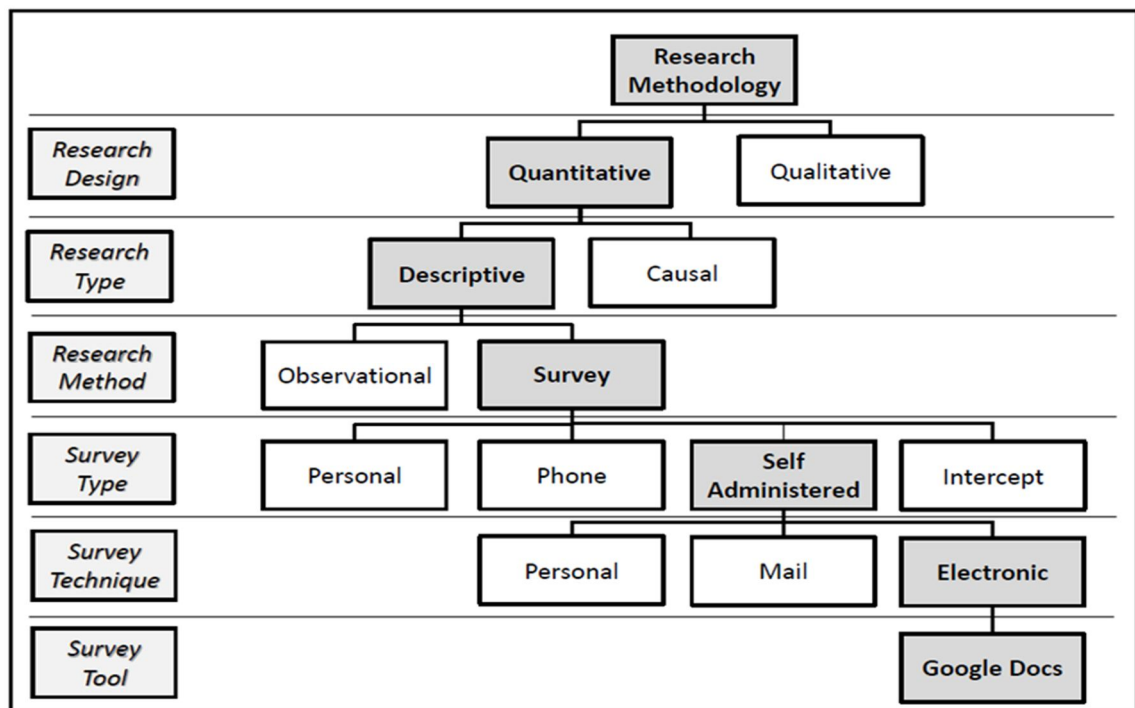
The dissertation is organised as follows:

Chapter 2 – Literature review: The literature review aims to develop an understanding of the variables being tested and explores various views on these variables and how they link to various performance metrics.

Chapter 3 – Research questions: This chapter states the research questions.

Chapter 4 – Research methodology: This chapter outlines the various methods used in this research paper. The aim of this chapter is to inform the reader of the method of data collection and type of research that was undertaken. Figure 2 diagrammatically depicts the research approach adopted by the researcher with the sections in grey depicting the process flow.

**Figure 2 Overview of research methodology**



Chapter 5 – Results: This chapter presents the results of the data collected from the sample frame.

Chapter 6 – Discussion of Results: This chapter explores and analyses the data found in chapter 5. This chapter will form the basis of the research findings.

Chapter 7 – Conclusion: This chapter highlights the main findings of the research, pulling the results together. It also includes recommendations for future research based on the findings.

## 2. Chapter 2: Literature Review

### 2.1 HRM and HRM practices

A significant amount of progress has been made in the research of HRM and its links to performance (Guest, 2011). The topic evolved from a mere interest in the relationship between HRM and performance in the 1980's, to the conclusive delivery of the association between HRM and HRM practices and performance (Guest, 2011) in the 1990's.

HRM practices are those activities that gives effect to HRM and seeks both to capacitate employees in terms of skills and abilities and also seeks to enhance motivation (Zhang & Li, 2009). The relationship between HRM practices and business performance has been studied before. A large portion of these studies were however based in the United States (Georgiadis & Pitelis, 2012). Georgiadis and Pitelis (2012) further notes that these studies raise doubts in terms of its applicability in different settings.

In recent years though, studies has been conducted in China (Zhang & Li, 2009), the United Kingdom (Georgiadis & Pitelis, 2012), Europe (Nikandrou, Apospori, Panayotopoulou, Stavrou, & Papalexandris, 2008), the Philipines (Edralin, 2011), Ireland (Liu, Guthrie, Flood , & Maccurtain, 2009) as well as in Taiwan (Lee, Lee, & Wu, 2010), amongst others. Industries and segments ranged from steel to pharmaceuticals as well as the SME market in general, amongst other segments.

Guest (2011) distinguishes between five stages of the development of theory on the association between HRM and performance. He cites various authors and generally proposes that the first phase of development revolved around the linking of business strategy to HRM as well as noting the shift from control to commitment as a basis for leading employees in the workplace.

The first phase of development essentially occurred in the 1980's and all during this period a number of authors started to provide anecdotal evidence as to the association and linkages between HRM and certain HRM practices to that of increased performance.

Guest (2011) describes the second phase as empiricism that he notes occurred largely in the 1990's as this was a period supported by data based studies of HRM and performance. He cites various studies in steel mills, the auto industry and in banking, all of which pointed to increased performance as result of incorporating HRM practices in the overall management of employees.

Guest (2011) continues to describe the third phase as that of 'backlash and reflection'. He notes that the rush to empiricism transpired quickly but to the detriment of having fully considered certain pertinent conceptual issues. Becker and Gerhart (1996) also called for a better understanding of HRM practices and a company's performance. Researchers measured different HRM practices in relation to performance and even when researchers used the same HRM practice, it was usually measured differently (Becker & Gerhart, 1996). This affected the general applicability of the various HRM practices being researched (Becker & Gerhart, 1996) as well as the conceptual nature of these studies (Dyer & Reeves, 1994) and led to Guest's fourth phase. This phase focussed on conceptual refinement and focussed on getting better theory around HRM and HRM practices, its links to performance and their general outcomes (Guest, 2011).

The fifth phase focused on the role of workers and their perceptions regarding the relationship between HRM and performance. Guest (2011) found that workers' voices were fairly mute when it came to the study of HRM and HRM practices and its relationship to organisational performance. Studies by Lee *et al.* (2010), Liu, Guthrie, Flood and Maccurtain (2009) and Zhang and Li (2009), amongst others, supports Guest's ascertainment that workers have been neglected in the study of HRM and HRM practices and its relationship with organisational performance.

The HRM function was traditionally considered as a function to deal with staff related administrative matters (Lee *et al.*, 2010). This changed in the 1970's and HRM is now noted as a key differentiator to business performance given the ability of competitors to easily imitate technologies, processes as well as being able to gain access to capital resources.

The dynamic nature of the macro environment in which companies trade as well as the unpredictable nature of markets and it's susceptibility to rapid and extreme changes (Lee *et al.*, 2010) has elevated HRM to the top levels of company boards and executive management committees. HRM now shares platforms with marketing, finance and other traditional functional disciplines and is considered a strategic function within companies (Lee *et al.*, 2010). Given the aforesaid, managers are therefore expected and required to be aware of changes at the coal face and be in a position to make rapid decisions towards any type of change (Lee *et al.*, 2010).

Based on the intensity of competition (Lee *et al.*, 2010), globalisation as well as the ease of replicating technologies and innovation (Whittington & Galpin, 2010), properly managing and enabling a company's human resources has become the single most important factor for companies to focus on in their quest to remain competitive (Lee *et al.*, 2010).

Various authors have come up with and classified a number of HRM practices but training and development, teamwork, compensation/incentives, human resources (HR) planning, performance appraisal and employment security are noted as the being the most positively associated with firm performance (Lee *et al.*, 2010). Managers within the pharmaceutical industry in China actually perceived that HRM practices are positively associated with company performance (Zhang & Li, 2009). Zhang and Li (2009) went on to test six HRM practices and found a positive association with company market performance.

Lee *et al.* (2010) also tested six HRM practices and also found that these practices, when evident in a company, increased the company's performance. A predictor of profitability can therefore be linked to HRM practices and business strategy (Georgiadis & Pitelis, 2012).

The reason for the increase performance of companies is likely due to HRM being focussed on developing a individual's attitude and abilities in such a way so that they positively contribute towards organisational goals while personally growing at the same time (Lee *et al.*, 2010).

For organisations to therefore be successful or, at least, remain competitive, HRM practices that supports the organisation's strategy and values must be adopted (Whittington & Galpin, 2010). As noted in the introduction, training and development as an HRM practice and employee engagement will be the main variables that the researcher will be testing.

## **2.2 Training and development**

Training and development is focussed on skills development and refers to the amount of formal training given to or consumed by employees (Lee *et al.*, 2010). The training does not necessarily have to be technical in nature but could be related to 'softer' skills training such as diversity in the workplace training, communicating across generations or other such similar training. The objective of training and development is to facilitate and enhance knowledge, attitude and the overall skill set of employees to further facilitate the achievement of organisational goals and objectives (Edralin, 2011).

Comprehensive training together with other HRM practices also further enhances employees' abilities (Zhang & Li, 2009). The nature of training and development is essentially symbiotic in nature as the organisation has a duty to capacitate its human assets and the employees then own the responsibility of having to meaningfully contribute in terms of their role in the organisation (Johnson, 2011).

Training can be executed in a number of different ways such as on-the-job training, classroom-type training, computer-based training, amongst others (Lee *et al.*, 2010). For it to be successful though, training and development cannot be separated from the core business activities of the company (Nikandrou *et al.*, 2008). Competitive forces dictate that organisations employ staff that are competent, adaptable, progressive and generally flexible in their demeanour (Nikandrou *et al.*, 2008). This need is further exacerbated by the integrated and global nature of trade as well as the information age (Edralin, 2011). These factors not only have an important role to play in the survival of organisations but also have an effect on whether organisations obtain competitive advantage or not (Edralin, 2011).



As most research into the links between HRM practices and organisational performance is concentrated in the United States and its manufacturing sector (Dyer & Reeves, 1994), the risk of duplicating and improving manufacturing processes by competitors is a reality. This can be seen from the gradual movement of production from western economies to eastern economies such as China and Japan. Edralin (2011) notes innovation to be the critical component that assists organisations in remaining relevant to the markets they serve. She goes on to note that the innovative ability of the organisation is best fostered internally and that a training and developmental environment fosters and advances the innovative capability of the organisation.

Governments consider investing in HRM as imperative for economic success and the maintained growth of their economies (Collier, Green, Kim, & Peirson, 2011). For the benefit of employers themselves, governments urge employers to undertake more employee development and to ultimately use more trained and educated employees (Collier *et al.*, 2011). The rationale and the reassurance that governments gives companies is that they will stand to gain from the increased knowledge, skills and abilities (Edralin, 2011) of staff in the form of increased productivity and innovation (Collier *et al.*, 2011). As restructuring and downsizing becomes an increasing global reality (Nguyen, Truong, & Buyens, 2011), governments are forced to look at their very own education and training systems at primary-, secondary- and tertiary educational levels. This, together with the training and development activities within private organisations, will ensure that governments deal with the dual need (Nguyen *et al.*, 2011) of having to ensure citizens say employed and that unemployed citizen who received training and development would be more employable.

It is complicated to compare the effect of training and development on organisational performance across different countries (Nguyen *et al.*, 2011) as a result of the various stages of economic and social development of each country. Nguyen *et al.*, (2011) also points out potential issues of cultural differences that could possibly affect the outcome when comparing training and development's effect on organisational performance across country borders. Their studies, however, ringfences these complex multitude of issues as they based their research on developing countries with very similar economic characteristics as well as having similar cultural norms and practices. Their comparative reseach of China and Vietnam finds that training is positively related to firm performance and therefore supports the reseach of Collier *et al.*, (2011).

While the research conducted by Lee *et al.*, (2010) confirms the positive correlation between this variable and business performance, not all research conducted points to a relationship, whether positive or negative, between an organisation's performance and training and development (Nikandrou *et al.*, 2008). Collier *et al.* (2011), however, does find that companies that train and develop some or all of their employees are significantly more likely to continue to gainfully operate their businesses and survive than those companies that do not train their staff. They further note a positive interaction between training and education. This bodes well in the South African context as it suggests that training and development of employees will likely lead to this pool of employees going on to take up further studies.

The lack of training and development is further linked to higher closure rates of companies relative to companies that do train (Collier *et al.*, 2011). Collier *et al.* (2011) does however note that smaller companies are less likely to survive any form of economic hardships than their larger counterparts. This suggests that new companies limit their focus in their earlier years of operation to efficiencies relating to servicing their core market as profitably as possible, essentially ensuring survival first, and thereafter look at further enhancing all other aspects of their business through training and development.

Company investments in training and development further raises their survival rates and leads to higher returns (Collier *et al.*, 2011), stimulates innovation (Edralin, 2011) and is the key ingredient towards creating competitive advantage (Nikandrou *et al.*, 2008). Both short and long term profitability, improved employee productivity and increase shareholder value has been associated with increased training and development activities (Nikandrou *et al.*, 2008).

Company investments in training and development is however not immune to economics cycles (Sheehan, 2012). Budgets towards training and development are especially vulnerable in climates of economic downturn (Sheehan, 2012). These actions by organisations in periods of economic downturn therefore comes across as counterproductive given training and development's positive impact on organisational performance (Georgiadis & Pitelis, 2012) and organisational perceived performance (Sheehan, 2012).

As noted previously, the research of Nikandrou *et al.* (2008) does not support a direct relationship between training and development and company performance. Collier *et al.*, (2011), however, finds that organisations that provide training for up to two days are roughly 13 percentage points more likely to continue operating successfully than those organisations providing no training. Training in excess of two days shows even better results. These findings together with those of Lee *et al.*, (2010), Zhang and Li (2009) and Georgiadis and Pitelis (2012), amongst others, provide the support for the linkage between HRM practices, including training and development, and an organisations' performance.

The contradictory findings can be ascribed to a number of factors. Issues such as differences between measurements and methodological approaches (Guest, 2011), what is actually being measured (Dyer & Reeves, 1994) and who's responses is being measured (Guest, 2011) are some of the factors that could be the reason for these differing results. Both Guest (2011) and Liu *et al.*, (2009) suggest that making use of a group of HRM practices versus merely measuring single HRM practices could also be at the root of the findings such of that of Nikandrou *et al.*, (2008).

According to Zhang and Li (2009), HRM practices and their effect on perceived business performance is usually researched from a management perspective only where senior management is usually sampled. Guest (2011) confirms this as he notes that most of the earlier research undertaken around HRM practices such as training and development and their links to performance has essentially ignored sampling the general workforce. He goes on to note human resources managers and practitioners as not being the most reliable sources of information as they are not the recipients of such HRM practices such as training and development. The actual workers who experience these HRM practices are better source of data (Guest, 2011).

This research would like to determine whether changing the sample would deliver similar results or not, and possibly whether different potential drivers of performance exists other than what is commonly noted by management, who, as previously noted, are usually the subjects and samples of such research (Zhang & Li, 2009). It is for this reason that the researcher specifically drew the sample from the entire employee base of the subject company as opposed to only from the senior management pool in the hope of getting a broader understanding of the relationship, from a more varied sample, between training and development and perceived business performance.

## 2.3 Employee engagement

Employee engagement has become popular as a term and concept both within academic and business literature (Whittington & Galpin, 2010). It commonly revolves around and is defined as employees' extra commitment or discretionary efforts towards an organisation's vision, goals and strategy over and above what would normally be the case or expected from them in terms of their primary role in the organisation (Johnson, 2011). Engaged employees are highly involved-, show a high degree of commitment-, eagerness- and zeal towards their work (Attridge, 2009).

Engaged employees feel a very strong sense of belonging towards their company and are known for their willingness to go beyond what is required in their primary roles (Davenport & Harding, 2010, p. 218). Engaged employees also outperforms their unengaged counterparts in terms of their primary roles as well as when comparing the performance of those companies that lack engaged employees (Towers Watson, 2011). In their report findings, Towers Watson (2011) goes on to state a direct correlation between employee engagement and net profit margins. Towers Watson (2011) also makes mention of other factors that could compound the effect of employee engagement but does state that high employee engagement alone as compared to low employee engagement can have a positive effect on a company's operating margins by close to 4,5%.

It is estimated that the United States alone loses between \$250 billion and \$300 billion a year due to disengaged employees (Shuck, Reio Jr, & Rocco, 2011). Some estimates are as high as \$350 billion a year (Attridge, 2009). Gerst (2013) notes that American companies spend more than \$720 million annually with the view of improving employee engagement. These types of estimates should clearly put employee engagement at the top of the agendas of all organisations, whether public or private concerns and may well be the reason that academic researchers and organisations are becoming more interested in employee engagement (Attridge, 2009).

Whittington and Galpin (2010) supports Shuck *et al.*, (2011) as they note that employee engagement leads to high levels of performance so much so that it is one of the top five most important challenges for managers (Attridge, 2009). Whittington and Galpin (2010) goes on to classify performance as the successful accomplishment of assigned tasks but makes a distinction between role requirements and extra role behaviours, those contributions that are voluntary and contributed to the organisation by the employee without regard for incentives or other reward expectations on the part of the employee.

Whittington and Galpin (2010) gives the example of where Procter and Gamble has the highest conversion ratio of interns to productive full-time employees in their particular industry. The success is attributed to Procter and Gamble's early efforts of enhancing employee engagement amongst interns by various means, some of which involves having these interns doing meaningful work with high levels of recognition attached to same.

This higher retention rate brought about by higher levels of employee engagement versus its peer group, benefits Procter and Gamble on a number of levels and especially as relates to costs. Recruitment, training and development as well as orientation costs are saved and one could make the inference, based on Shuck *et al.*, (2011), that Procter and Gamble will likely achieve higher revenues based on having retained these engaged interns.

The success of Procter and Gamble and the extreme cost of unengaged employees in the United States, does not suggest that the problem of unengaged employees merely resides in the United States alone. The problem is worldwide (Attridge, 2009). The effect of globalisation and the resultant ease of movement amongst the global labour force, has made attracting and retaining top talent a fundamental priority for companies (Whittington & Galpin, 2010). The need for employees to be engaged in their work has therefore increased (Cardus, 2013)

Shuck *et al.* (2011) points out in their research that employee engagement is highly related to both discretionary effort and intention to turnover. This supports Whittington and Galpin's (2010) example of Procter and Gamble and reinforces the point of engaged employees' benefit to a company in terms of being more productive and generating more revenues as well as limiting employment costs in the form of recruitment advertising, actual recruitment, selection, orientation and other costs associated with rampant employee turnover being saved. Engaged employees also benefit the company in that the level of engagement is directly accordant to performance and results (Forck, 2014).

Notwithstanding the fact that companies in the United States loses between up to \$300 billion (Shuck *et al.*, 2011) and \$350 billion (Attridge, 2009) in a single year due to employees being disengaged, there still seem to be a lot of companies that are not measuring employee engagement (Attridge, 2009). Attridge (2009) does however note that this is changing and that unengaged employees in not just a problem in the United States but very much a problem and concern across the world.

Shuck *et al.*, (2011) found employee engagement to be positively and significantly correlated to job fit, affective commitment and psychological climate. This, together with Attridge's (2009) findings, is partly the reason why companies are now paying close attention to employee engagement (Whittington & Galpin, 2010) and why they are looking to unlock greater overall value by adopting processes that would create or enhance employee engagement further (Towers Watson, 2011).

Cardus (2013) suggests five factors that can increase employee engagement or assist with disengaged employees. He notes that competent managers, wide target ranges within a proper context, objective measures of progress and regress, adequate resources relative to the job at hand and enough independence to facilitate delivering employees' best work, would improve and enhance employee engagement. Forck (2014) is of the view that leaders should focus on seven points given the importance of employee engagement. He states that given the economic impact of disengaged employees, employee engagement should become a major focus point for leaders. He distinguishes between engaged-, non-engaged- and actively disengaged employees and stresses the importance of measuring engagement to determine the engagement profile of your company's staff complement. Attridge's (2009) work supports this view and similarly stratifies employees across these three types of strata.

Forck (2014) continues and notes that employee-to-employee communication and feedback is imperative to enhance employee engagement and therefore improve performance given that management cannot be everywhere to drive such performance. This broadly links to Attridge's (2009) ascertainment that there should be a focus on positive psychology which essentially would direct managers to focus more on employee strengths, leveraging and enforcing this, as opposed to minimising this and focussing more on employee weaknesses. He states that the latter is generally counterproductive in terms of enhancing performance.

Forck (2014) suggests that explaining to employees why they are doing a certain task and why such task is important to the company will give employees a greater sense that they are doing meaningful work and enhance employee engagement. This supports the example of Procter and Gamble made by Whittington and Galpin (2010).



Forck (2014) continues to stress the importance of engaging employees on a personal and authentic level. While questionnaires and surveys provide meaningful feedback and insights into levels of employee engagement, the main objective would be to understand what is working and not working from an employee perspective with the goal of creating a more engaged workforce (Gerst, 2013). Both Forck (2014) and Gerst (2013) therefore suggests that while a quantitative approach to measuring, interpreting and understanding employee engagement has meaning, a qualitative approach cannot be ignored in order to deliver more lasting employee engagement results.

Forck's (2014) seven points of focus continues with him emphasising the economic perils that would beset a company that does not focus on employee engagement. He concludes his seven points of focus by stressing the importance of first-line supervisors and managers and how they affect the levels of employee engagement in various ways, and therefore the market value and general performance of the company. There are therefore some overlaps with Cardus' (2013) five levers of engagement, although not that comprehensive.

Similar to Cardus (2013) and Forck (2014), Attridge (2009) cites five tools and focus areas that, if properly applied, is able to enhance and encourage employee engagement. He states those tools and focus areas to be that of a focus on job design, support and resources, working conditions, corporate culture and leadership style.

In terms of job design, Attridge (2009) suggest matching employees' strengths to roles in which they can excel in. In terms of support and resources, he focusses on the firstline supervisors and managers and notes that disengagement is perpetuated in the absense of same. This ascertainment is similar to that of Forck (2014). Given the ever increasing complexity of work (Cardus, 2013), due support and resources provided to successfully fulfil the demands of a job can have a buffering and alleviating effect on how stressful a job or task may become (Attridge, 2009).

Attridge (2009) goes on to explore and emphasise the importance of working conditions and corporate culture and ends off his discussion regarding his tool set with a focus on leadership styles. He emphasises this as a key factor for enhancing employee engagement similar to both Cardus (2013) and Forck (2014).

The review of the literature on employee engagement, whether from an academic or a business perspective (consulting firms) has a number of factors in common that would increase employee engagement. Near all literature and research papers makes a point around the economic benefits of having engaged employees (Attridge, 2009; Cardus, 2013; Forck, 2014; Gerst, 2013; Whittington & Galpin, 2010; Shuck *et al.*, 2011; Towers Watson, 2011; Johnson, 2011).

Another common denominator that is found to increase employee engagement is leadership. Whether this is articulated as “the buck stopping with first line managers” (Forck, 2014), leadership style (Attridge, 2009), competent managers (Cardus, 2013) or having an engaged leadership team (Johnson, 2011), the chances of employee engagement increasing is very remote without the input and commitment of firstline leaders and management in general.

Communication is another factor that is common throughout the research commentary and plays a critical role in enhancing and improving employee engagement. Researchers note issues such as defining policy and the like (Forck, 2014), communicating and defining broad objectives (Cardus, 2013), communicating expectations (Whittington & Galpin, 2010) and general effective communication (Johnson, 2011) or even peer to peer feedback (Forck, 2014) as vital means of increasing employee engagement.

Adequate resources seems to be the final component that is common amongst the various research that was undertaken by the researcher (Attridge, 2009; Cardus, 2013; Forck, 2014; Gerst, 2013; Whittington & Galpin, 2010; Shuck *et al.*, 2011; Towers Watson, 2011; Johnson, 2011).

A lack of adequate resources (Attridge, 2009) coupled with a lack of leadership (Cardus, 2013) is shown to be highly correlated to high levels of disengagement.

Given therefore the lack of research in Africa together with mostly only senior managers being sampled in HRM (training and development) and employee engagement type surveys, this research is required.

## **3. Chapter 3: Research Questions**

### **3.1 Introduction**

The purpose of this research was to test whether training and development had an effect on perceived performance, whether employee engagement had an effect on perceived performance and to further test whether there is any relationship between training and development, as an HRM practice, and employee engagement. All the variables are generally under-researched in the South African context.

### **3.2 Research question 1**

Is there a relationship between training and development and perceived business performance when sampling the entire staff complement of an organisation?

This research question seeks to determine whether training and development has an impact on perceived performance and whether there is a statistical relationship to support same. The entire staff complement of an organisation was tested as opposed to senior management only. The intention of this is as per what has been related in both chapters one and two.

### **3.3 Research question 2**

Is there a relationship between employee engagement and perceived business performance when sampling the entire staff complement of an organisation?

This research question seeks to determine whether employee engagement has an impact on perceived performance and whether there is a statistical relationship to support same. The entire staff complement of an organisation was tested as opposed to senior management only. The intention of this is as per what has been related in both chapters one and two.

### **3.4 Research question 3**

Is there a relationship between training and development and employee engagement when sampling the entire staff complement of an organisation?

This research question seeks to determine whether training and development has an impact on employee engagement and vice versa. It also sought to determine whether there is a statistical relationship between these two variables. The entire staff complement of an organisation was tested as opposed to senior management only. The intention of this is as per what has been related in both chapters one and two.

## **4. Chapter 4: Research Methodology**

### **4.1 Research design**

The research design followed a quantitative approach, using the descriptive method of research. The research instrument used was an electronic questionnaire with a 5-point likert type scale. The 5-point scale was selected to compare this research findings with South African norms. The questionnaire was developed using word processing software and was transcribed and hosted on Google Forms, a popular online survey tool, and forwarded to respondents from this platform. The data gathered in this study is therefore primary data.

### **4.2 Rationale for research design**

Qualitative research was considered but given the large national footprint of the company together with time and cost limitations, did not make any form of qualitative research feasible. Another concern was also that exploratory research might well cause tentative answers (Saunders & Lewis, 2012) which would in any event require research that is more detailed.

### **4.3 Population and sampling**

The population was all permanent employees at a financial services company listed on the Johannesburg Stock Exchange (JSE). The sample frame was the company's payroll data as at the end of July 2014. Due consideration was given to sensitive nature of the sample frame data. All salary details were deleted from the original source data prior to handing same over to the researcher. This data, as extracted from the company's

payroll system, then became the sample frame the researcher utilised to draw the sample from.

The entire payroll data was ranked in terms of age and in descending order (from oldest to youngest). This was done with the intent of extracting a more diverse sample from the sample frame. Gender, date of employment and geographical dispersion was considered for ranking purposes but would have not given the same level of variety to the sample as ranking the sample frame by age. The sample frame size was 789. After arranging the data in descending order by age, each observation (individual employee details) were allocated a number from one to 789.

Probability sampling was then utilised and a simple random sample was selected from the sample frame. This process involved selecting a random number and then selecting every other employee from this number onwards by utilising a popular spread sheet program, the number 73 was selected as the first observation. Every alternative employee was then selected and by way of example, these were observations 75, 77, and so forth. Half of the sample frame therefore made up the sample and a response rate of just under 21% was achieved. Given that only permanent employees was sampled, non-executive directors were excluded from the sample as they were classified as contract workers given that they did not operate under an employment contract.

#### **4.4 Unit of analysis**

The unit of analysis was all permanent employees at the financial services company that were employed at the company as at the end of July 2014. Access to the internet and email was taken into account and, given the population, was not considered an impediment to the research.

The research variables were established as the HRM practice of training and development, employee engagement and perceived business performance. The HRM practice of training and development and employee engagement was the independent variables whereas perceived business performance was the dependent variable.

The researcher tested the effect of the independent variables on the dependent variable as well as the independent variables on each other to determine if there is any statistical significance, whether negative or positive.

Annexure 1 refers to the research instrument.

#### **4.5 Pre-testing of the research instrument and research instrument design**

A total number of 6 versions of the electronic questionnaire were presented to 4 staff members of the company and to 2 other individuals not directly associated with the company. The respondents were selected based on a convenience sampling approach. While appropriateness is not the main consideration of a convenience sample (Saunders & Lewis, 2012), the researcher made sure that the selected respondents reasonably represented the population that would eventually be sampled in terms of academic qualification, their role within the company as well as their home language and proficiency with the English language.

The intention of the pre-testing was to determine and test for any blatant forms of ambiguity in the questions and to solicit any feedback that would make the eventual questionnaire more understandable to respondents. Feedback from respondents revolved around aesthetic aspects of the



questionnaire, which was subsequently addressed. All respondents noted that the questions were easily understandable and interpretable.

A section of the online test questionnaire did however prove problematic as it was marked as compulsory and therefore did not allow the test group to proceed with the questionnaire if they did not answer in a particular way. The researcher addressed the part of the questionnaire by making the first two questions of section two of the questionnaire non-compulsory questions.

All other questions were marked as compulsory. Marking two questions as non-compulsory questions did not prove problematic and all 81 respondents answered all of the questions.

The questionnaire was originally designed using a popular word processing software programme and subsequently transcribed to electronic format for the purposes of data collection. The structure of the questionnaire was divided into an introduction together with four main sections.

#### **4.5.1 Introduction to questionnaire**

The introduction section was the first page of the questionnaire and dealt with the topic being researched, the amount of time it would take to complete the questionnaire, the voluntary nature of completing the questionnaire as well as the confidential nature of the questionnaire. The contact details of both the researcher as well as the researcher's supervisor were provided together with the institution under which auspices the research was being conducted.

#### **4.5.2 Main body of questionnaire**

The main body of the questionnaire followed the introduction and consisted of four sections:

- Section 1 – This section largely dealt with demographics

- Section 2 – This section posed questions that were designed to obtain information in regards to research question 1
- Section 3 - This section posed questions that were designed to obtain information in regards to research question 2
- Section 4 - This section posed questions that were designed to obtain information in regards to research question 3

The questionnaire was hosted online and pretested to eliminate any ambiguity or confusion. Near all questions were made compulsory which facilitated a 100% completion rate by all 81 respondents.

#### **4.6 Data Collection**

Email addresses of all respondents selected were obtained from the sample frame. A link with the electronic version of the questionnaire was then sent to the selected sample. The researcher received 15 errors that noted that user email accounts does not exists. Each of the errors were investigated and it was determined that the user email accounts existed but were erroneously transcribed from the original sample frame. This was subsequently addressed and emails were sent out to all 15 members of the sample with no subsequent errors.

From the first request to complete the questionnaire, 55 responses were received. Although this was an acceptable level of responses, the researcher sought to obtain more responses and a reminder to complete the questionnaire was sent out two weeks after the initial request. An additional 26 responses were received two weeks after the reminder was send out. This brought the total responses to 81.

## **4.7 Data Analysis**

The data was analysed using a number of statistical approaches appropriate to the type of data at hand. Questions from the questionnaire that was deemed most pertinent to the research questions as noted in chapter three, were analysed as follows:

### **4.7.1 Research question 1**

*“Is there a relationship between training and development and perceived business performance when sampling the entire staff complement of an organisation?”*

For the purposes of analysis in the context of research question one, questions four and five of section two of the questionnaire was analysed and since there were unequal observations per treatment level, the most appropriate approach was to utilise a single factor ANOVA.

### **4.7.2 Research question 2**

*“Is there a relationship between employee engagement and perceived business performance when sampling the entire staff complement of an organisation?”*

For the purposes of analysis in the context of research question two, questions four, seven, eight and ten of section three of the questionnaire was analysed by way of a Chi-square test of association.

### **4.7.3 Research question 3**

*“Is there a relationship between training and development and employee engagement when sampling the entire staff complement of an organisation?”*

For the purposes of analysis in the context of research question three, questions four and five of section four of the questionnaire was analysed by way of a Chi-square test.

## **4.8 Assumptions**

Given that the questionnaire was sent out electronically, the assumptions were that all respondents would have access to a functioning computer, have access to the internet, and would have approximately 15 uninterrupted minutes to complete the questionnaire. These assumptions were tested by engaging the stakeholders at the subject company with the intent of minimising or eliminating the risk associated with the researcher's assumptions. The stakeholders that were engaged was the company's Chief Information Officer (CIO), the Chief Operating Officer (COO) as well as the Head of Human Capital Development (Head: HCD).

### **4.8.1 Access to computers**

All stakeholders explained that all staff has access to a functioning computer and that most staff has a computer allocated to them. Certain entry-level permanent staff members who work in the company's property division were noted to not have individual computers allocated to them. Maintenance staff within the branch operations division of the company also did not have a computer allocated to them given the nature of their roles. All these staff did however have access to a computer. The researcher planned to make use of a paper version of the questionnaire in instances where access to computers was problematic. When the sample was selected from the sample frame, zero instances of the aforementioned occurred. All the respondents selected therefore had an email account which indicated that all respondents had access to a computer and was confirmed with the company's CIO.

#### **4.8.2 Access to the internet**

The CIO confirmed that all staff that has a functioning computer or have access to a functioning computer, has access to the internet. Access was further defined as having an email account, whether a personally styled email account or an email account styled by function, and being able to access internet sites such as Google. As the company also made use of Google Forms for ad hoc employee surveys, access to this platform was therefore not problematic or restricted to employees with access to a computer.

#### **4.8.3 Access to sufficient time for the completion of the questionnaire**

The electronic questionnaire was send out towards the end of the first week of August 2014. This took into account the company's peak periods of trade, which is over month-ends, in the middle of the month and the first week of the month. There was therefore sufficient time for respondents to complete the questionnaire without this affecting their core duties.

### **4.9 Limitations**

Because performance in the economic and financial sense can be measured in a multitude of ways, this was considered as a limitation to this research as the researcher opted to utilised perceived performance as opposed to any one of the myriad of metrics that relates to performance. This point (using perceived performance as opposed to one or more of the myriad of performance metrics available) was also dealt with in chapter one of this research paper. The limitation largely revolves around not being able to make like-for-like comparisons between studies and therefore leads into another limitation, the potential lack of longitudinal studies.

While the sample selected is reasonably representative and varied in terms of demographics, it is not varied in terms of industries. One company was essentially the population and the research was also limited to one industry. This is seen as a significant limitation as it subjects the research to too much of a social desirability response risk.

Self-report scores have also been noted to be inflated compared to independent observer ratings (Cartwright, Daniels, & Zhang, 2008). This links into response bias or socially desirable responses. Although assurances of anonymity were given, response bias, as a possible result of social desirability, cannot be totally discounted especially in the context of the researcher being a senior member of management at the company.

All questions in the questionnaire were not analysed. The most pertinent questions were selected by the researcher and analysed in the context of the research questions. The ideal would have been for all questions to be analysed notwithstanding control factors.

## 5. Chapter 5: Results

### 5.1 Introduction

Data was collected using an online questionnaire that was hosted on a popular survey website. The selected sample was then sent an email with an embedded link to the online questionnaire. A total of two reminders were sent to the prospective respondents to remind them to complete the survey. The total population was 789 employees and this made up the sample frame.

### 5.2 Sample description

The selected sample consisted of 394 respondents and a response rate of just under 21% was achieved (81 responses out of the sample of 394). The sampling method was addressed in chapter 4. The following tables and figures details some of the key descriptive statistics.

### 5.3 Questionnaire scale

Barring questions in section one, section two's questions one and two, section three's question six and section four's question three in the questionnaire, all questions had the following scale:

1 – Agree; 2 – Tend to agree; 3 – Neither Agree nor Disagree; 4 – Tend to Disagree; 5 - Disagree

The scale for the question in section three, question 6 was:

1 – Satisfied; 2 – Partly Satisfied; 3 – Neither Satisfied or Dissatisfied; 4 – Partly Dissatisfied; 5 – Dissatisfied

## 5.4 Research questions

The questionnaire sought to gather data that would answer the following research questions:

1. Is there a relationship between training and development and perceived business performance when sampling the entire staff complement of an organisation?
2. Is there a relationship between employee engagement and perceived business performance when sampling the entire staff complement of an organisation?
3. Is there a relationship between training and development and employee engagement when sampling the entire staff complement of an organisation?

## 5.5 Descriptive statistics

This section summarises the key demographics of the survey respondents.

### 5.5.1 Age

Participants were asked their age and responded by selecting one of the age groups presented to them in the online questionnaire. Table 1 shows a good spread of age across age groups with 57% of respondents in the 26 to 41 age groups.

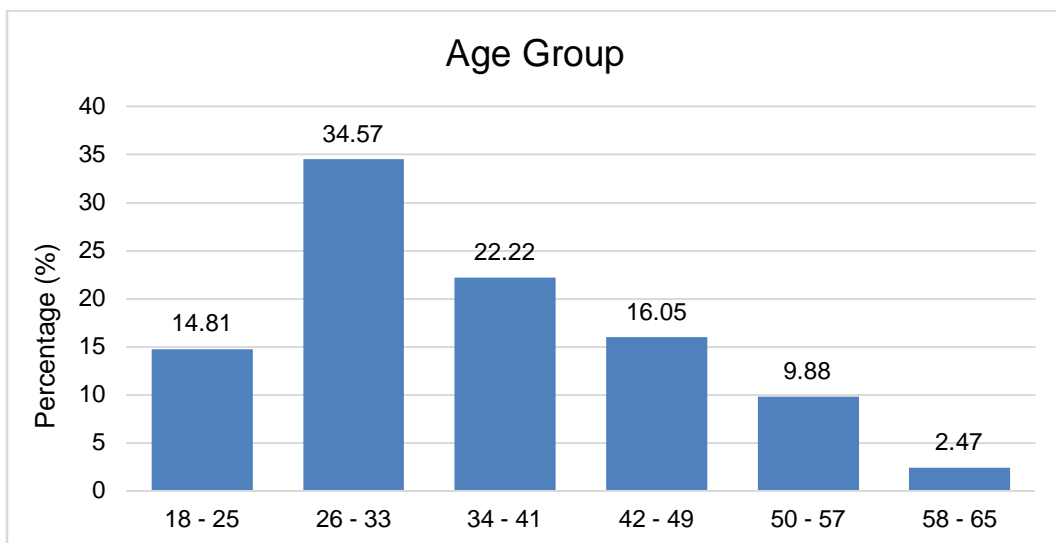


**Table 1 Age Group**

Age group	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<b>18 - 25</b>	12	14.8	12	14.8
<b>26 - 33</b>	28	34.6	40	49.4
<b>34 - 41</b>	18	22.2	58	71.6
<b>42 - 49</b>	13	16.1	71	87.7
<b>50 - 57</b>	8	9.9	79	97.5
<b>58 - 65</b>	2	2.5	81	100.0

Figure 3 shows the age distribution. The respondents are concentrated in the under 41 years category with 71,6% of respondents falling within this range

**Figure 3 Age group distribution**



### 5.5.2 Gender

The majority of respondents, near 67%, were female.

**Table 2 Gender distribution**

<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
<b>Female</b>	54	66.67	54	66.67
<b>Male</b>	27	33.33	81	100

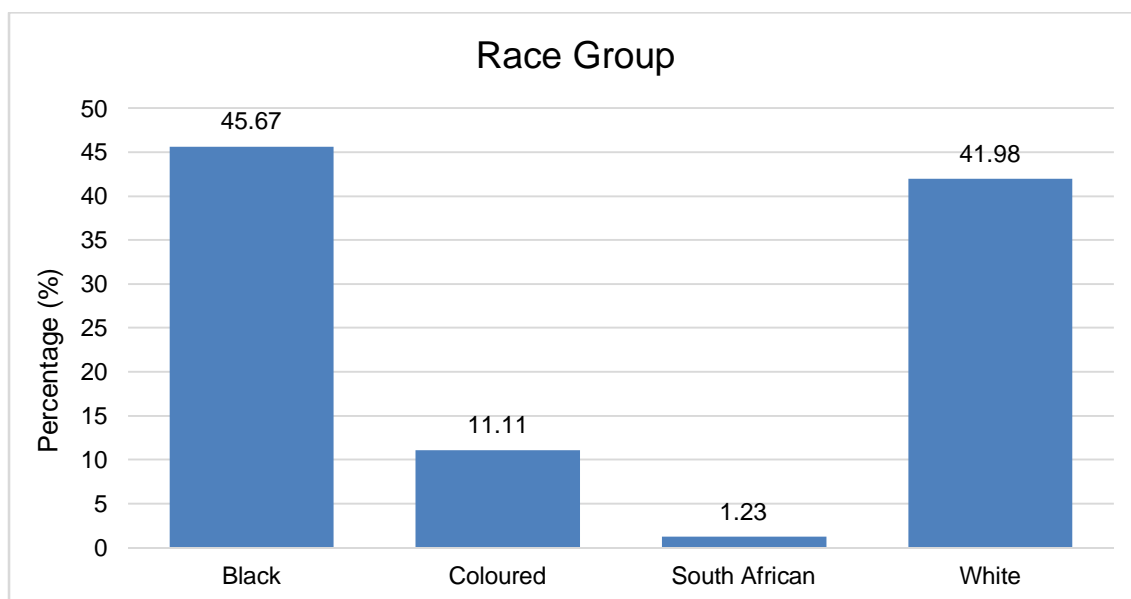
### 5.5.3 Race

Race was not considered as a meaningful metric in terms of the research questions. The researcher however considered that the subject company being researched would likely require this data for their internal purposes. The data is therefore included in table 3. Certain respondents classified themselves as either African or South African by making use of the “other” response option in the questionnaire. These responses was cross referenced against the sample frame data, which included employee role, geographic location, sex, gender, amongst other demographic statistics and allowed the researcher to detect and actual race of the two respondents more easily.

**Table 3 Race distribution**

<b>Race</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
<b>Black</b>	37	45.67	38	46.91
<b>Coloured</b>	9	11.11	46	56.79
<b>South African</b>	1	1.23	47	58.02
<b>White</b>	34	41.98	81	100

**Figure 4 Race distribution**



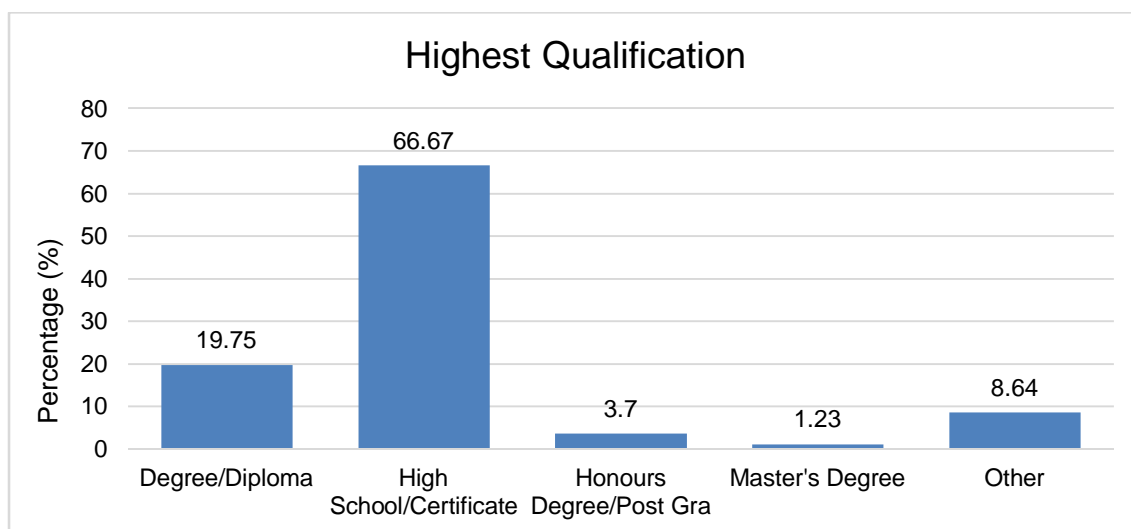
#### 5.5.4 Qualifications

Respondents' qualifications are concentrated in the High School/Certificate category. The category represents 68% of respondents.

**Table 4 Qualifications distribution**

Highest Qualification	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Degree/Diploma	16	19.75	16	19.75
High School/Certificate	54	66.67	70	86.42
Honours Degree/Post Grad	3	3.7	73	90.12
Master's Degree	1	1.23	74	91.36
Other	7	8.64	81	100

**Figure 5 Qualifications distribution**



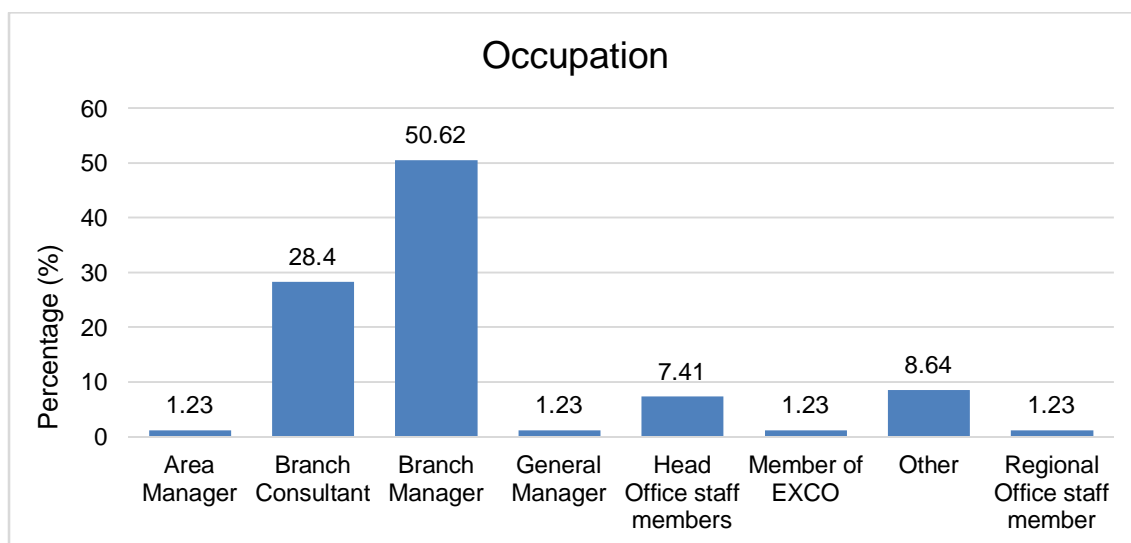
### 5.5.5 Role within the organisation

This summary depicts the respondents' role across the subject company. The majority of staff, approximately 80%, are Branch Consultants and Branch Managers. This therefore serves one aspect of the research's purpose in not merely wanting to receive feedback from senior managers as relates to the impact of training and development on perceived performance.

**Table 5 Roles within the organisation**

Role	Frequency	Percent	Cumulative Frequency	Cumulative Percent
<b>Area Manager</b>	1	1.23	1	1.23
<b>Branch Consultant</b>	23	28.4	24	29.63
<b>Branch Manager</b>	41	50.62	65	80.25
<b>General Manager</b>	1	1.23	66	81.48
<b>Head Office staff members</b>	6	7.41	72	88.89
<b>Member of EXCO</b>	1	1.23	73	90.12
<b>Other</b>	7	8.64	80	98.77
<b>Regional Office staff member</b>	1	1.23	81	100

**Figure 6 Role distribution**



### 5.5.6 Training

This is a key summary table as it depicts those staff that actually received or attended training sessions versus those staff that responded ‘no’ to having received training. It is important for respondents to have actually attended training in order to measure this variable against perceived performance and employee engagement. Table 6 shows that 75% of respondents received some form of training and/or development in the past year.

**Table 6 Training**

<b>Attended Training</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
<b>No</b>	20	24.69	20	24.69
<b>Yes</b>	61	75.31	81	100

## 5.6 Responses linked to research questions

### 5.6.1 Research question 1

Tables 7 and 8 below are the responses to the questions relating to research question 1 and as noted in chapter 4. These will be analysed and further discussed in chapter 6.

**Table 7 Training helps me function better in my role**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
1	56	69.14	56	69.14
2	14	17.28	70	86.42
3	6	7.41	76	93.83
5	5	6.17	81	100

**Table 8 Training enhances my performance levels**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
1	57	70.37	57	70.37
2	12	14.81	69	85.19
3	7	8.64	76	93.83
5	5	6.17	81	100

From both tables 7 and 8 it is clear that respondents are overwhelmingly of the view that training and development has both an impact on them functioning better in their roles as well as enhancing their performance levels. Between 85% to 86% of respondents 'agree' or 'tend to agree' on these 2 matters. It should however be borne in mind that not all respondents received training and this will be further discussed and analysed in chapter 6.

Other responses relative to research questions 1, although not statistically tested, also provides meaningful insights that will be further unpacked in chapter 6. Those responses are detailed in tables 9, 10 and 11 below.

**Table 9 If I received more relevant training, I could increase my performance**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
1	64	79.01	64	79.01
2	8	9.88	72	88.89
3	3	3.7	75	92.59
4	2	2.47	77	95.06
5	4	4.94	81	100

**Table 10 Training would help me to function better in my role**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
1	67	82.72	67	82.72
2	8	9.88	75	92.59
3	3	3.7	78	96.3
4	2	2.47	80	98.77
5	1	1.23	81	100

**Table 11 Training would enhance my performance levels**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
1	69	85.19	69	85.19
2	6	7.41	75	92.59
3	2	2.47	77	95.06
4	3	3.7	80	98.77
5	1	1.23	81	100

Tables 9 to 11 requires respondents to answer questions as to what the benefit of training would be relative to their current levels of performance. Between 89% and 92% of respondents either 'agree' or 'tend to agree' that training would have a positive impact on their performance and improve how they function in their roles.

### 5.6.2 Research question 2

Tables 12, 13, 14 and 15 below are the responses to the questions relating to research question 2 and as noted in chapter 4. These will be analysed and further discussed in chapter 6.

**Table 12 I would recommend our company as a good place to work**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
1	54	66.67	54	66.67
2	11	13.58	65	80.25
3	11	13.58	76	93.83
4	4	4.94	80	98.77
5	1	1.23	81	100

Slightly more than 80% of respondents either 'agree' or 'tend to agree' that they would recommend the company as good place to work.



**Table 13 I work beyond what is required to help our company succeed**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
1	66	81.48	66	81.48
2	8	9.88	74	91.36
3	3	3.7	77	95.06
4	2	2.47	79	97.53
5	2	2.47	81	100

91% of respondents 'agree' or 'tend to agree' that they work beyond what is required to help the company succeed. This question has the 2<sup>nd</sup> highest amount of respondents that 'agree' that they work beyond what is required to help the company succeed.

**Table 14 I often take on extra responsibilities**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
1	69	85.19	69	85.19
2	7	8.64	76	93.83
3	2	2.47	78	96.3
4	1	1.23	79	97.53
5	2	2.47	81	100

Close to 94% of respondents either 'agree' or 'tend to agree' that they often take on extra responsibilities. This question has the joint highest amount of respondents that 'agree' that they often take on extra responsibilities.

**Table 15 I care about our company's well-being**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
1	69	85.19	69	85.19
2	8	9.88	77	95.06
3	3	3.7	80	98.77
4	0	0	0	0
5	1	1.23	81	100

95% of respondents either 'agree' or 'tend to agree' that they care about the well-being of the company. This question has the joint highest amount of respondents that 'agree' that they care out the company's well-being.

Other responses relative to research questions 2, although not statistically tested, also provides meaningful insights that will be further unpacked in chapter 6. Those responses are detailed in tables 16 to 21.

**Table 16 I believe strongly in the strategic direction being pursued by our company**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
1	58	71.6	58	71.6
2	15	18.52	73	90.12
3	5	6.17	78	96.3
4	2	2.47	80	98.77
5	1	1.23	81	100

**Table 17 I fully support the values for which our company stands**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
1	62	76.54	62	76.54
2	13	16.05	75	92.59
3	4	4.94	79	97.53
4	1	1.23	80	98.77
5	1	1.23	81	100

**Table 18 I am proud to be associated with our company**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
1	63	77.78	63	77.78
2	10	12.35	73	90.12
3	5	6.17	78	96.3
4	1	1.23	79	97.53
5	2	2.47	81	100

**Table 19 Looking back over the past year or so, our company has become a better place to work**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
1	53	65.43	53	65.43
2	14	17.28	67	82.72
3	10	12.35	77	95.06
4	3	3.7	80	98.77
5	1	1.23	81	100

**Table 20 How satisfied am I with our company as a place to work?**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
1	39	48.15	39	48.15
2	21	25.93	60	74.07
3	13	16.05	73	90.12
4	6	7.41	79	97.53
5	2	2.47	81	100

**Table 21 At the present time, I am seriously considering leaving the company**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
1	8	9.88	8	9.88
2	4	4.94	12	14.81
3	6	7.41	18	22.22
4	11	13.58	29	35.8
5	52	64.2	81	100

### 5.6.3 Research question 3

Tables 22 and 23 below are the responses to the questions relating to research question 3 and as noted in chapter 4. These will be analysed and further discussed in chapter 6.

**Table 22 When I receive training or are nominated for training, I feel valued**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
1	63	77.78	63	77.78
2	6	7.41	69	85.19
3	11	13.58	80	98.77
4	0	0	0	0
5	1	1.23	81	100

**Table 23 Training makes me understand how meaningful my role is to the company**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
1	62	76.54	62	76.54
2	8	9.88	70	86.42
3	10	12.35	80	98.77
4	0	0	0	0
5	1	1.23	81	100

The above 2 questions were answered in a very similar manner with between 85% and 86% of respondents either agreeing or tending to agree in both instances. The level of indifference, neither agreeing or disagreeing, is also similar with those disagreeing being exact.

Other responses relative to research questions 3, although not statistically tested, also provides meaningful insights that will be further unpacked in chapter 6. Those responses are detailed in tables 24 and 25.

**Table 24 Training helps me to better understand the strategic direction of the company**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
1	56	69.14	56	69.14
2	20	24.69	76	93.83
3	4	4.94	80	98.77
4	0	0	0	0
5	1	1.23	81	100

The question as represented in table 24 strongly suggests a relationship between the understanding of the company's strategic direction and training. Near 94% of respondents either 'agree' or 'tend to agree' on this point.

**Table 25 The stated values of the company is what my direct manager displays on a daily basis**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
1	54	66.67	54	66.67
2	14	17.28	68	83.95
3	9	11.11	77	95.06
4	2	2.47	79	97.53
5	2	2.47	81	100

## 6. Chapter 6: Discussion of Results

### 6.1 Introduction

This chapter is dedicated to the statistical analysis and discussion of the three main research questions. All research questions will be tested using responses received from the questionnaire.

### 6.2 Research question 1

*Is there a relationship between training and development and perceived business performance when sampling the entire staff complement of an organisation?*

#### 6.2.1 1st Analysis

Key variables (Questions analysed from questionnaire):

- Training enhances my performance levels.
- I have received and/or attended a training session in the past year.

The first analysis concentrates mainly on the overall responses to the question 'Training enhances my performance levels', without taking into account other demographics such as race, age, time with employer, amongst other variables. The responses to this variable are presented in the below table:

**Table 26 Training enhances my performance levels (analysed)**

Training enhances my performance levels						
	1 = Agree	2 =Tend to agree	3 = Neutral	4 = Tend to disagree	5= Disagree	Total
Frequency	57	12	7	0	5	81

Employing a weighted average approach in analysis, we have the following formula:

$$\frac{1 \times 57 + 2 \times 12 + 3 \times 7 + 4 \times 0 + 5 \times 5}{57 + 12 + 7 + 0 + 5} = 1.567$$

Rounded off to 2 decimal places, the outcome is therefore 1.57 and from this analysis we can infer that there is a relationship between training and development and perceived performance. The score of 1.57 lies between the response 'agree' and 'tend to agree'. This outcome is supported by previous research (Zhang & Li, 2009; Nguyen *et al.*, 2011; Collier *et al.*, 2011; Lee *et al.*, 2010; Georgiadis & Pitelis, 2012; Sheehan, 2012) noting the positive interaction between training and development and performance, business performance and other metrics of performance.

The effect of attending training was tested using the variable, 'I have attended a training session in the past year'. A two-way frequency table including this variable is as follows:

**Table 27 Training enhances my performance levels (Attend training Yes/No)**

Attended training in the past year	Training enhances my performance levels					Total
	1 = Agree	2 = Tend to agree	3 = Neutral	4 = Tend to disagree	5 = Disagree	
<b>No</b>	15	1	0	0	4	20
<b>Yes</b>	42	11	7	0	1	61
<b>Total</b>	<b>57</b>	<b>12</b>	<b>7</b>	<b>0</b>	<b>5</b>	<b>81</b>

From Table 27 about 80% (16 out of 20) of those who did not attend training in the past year 'agree' and 'tend to agree' that training enhances their performance levels. On the other hand, 86% (53 out of 61) of those who attended training 'agree' and 'tend to agree' that training enhances their performance. These findings support and confirm previous research (Zhang

& Li, 2009; Nguyen *et al.*, 2011; Collier *et al.*, 2011; Lee *et al.*, 2010; Georgiadis & Pitelis, 2012; Sheehan, 2012).

Because the analysis aims to test the effect of attending training and development sessions, of interest would be the significance of the difference in responses between the two groups. The ANOVA model is best suited since the frequencies of observations between the two groups are not equal (Kutner, Nachtsheim, Neter, & Li, 2005). The analysis basically seeks to answer the question, “Does one group agree with the effect of training more so than the other?”

The questions are therefore as follows:

$Q_0$ : Mean response score for those who attended training is equal to those who did not attend training.

$Q_a$ : Mean response score for those who attended training is not equal to those who did not attend training.

The response variable, ‘Training enhances my performance levels’, is treated as a continuous variable. A predictor variable will be ‘I have attended a training session in the past year’. The model to be fitted is therefore a one factor ANOVA. Results are presented in Table 28.

**Table 28 ANOVA analysis – Training enhances my performance levels**

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	2.113	2.113	1.820	0.181
Error	79	91.763	1.162		
Corrected Total	80	93.877			
R-Square	Coeff Var	Root MSE	Training would enhance my performance levels (Mean)		
0.02251	68.739	1.078	1.568		
Level of	N	Training would enhance my			



training_Y_N		performance levels	
		Mean	Std Dev
No	20	1.850	1.631
Yes	61	1.475	0.829

Table 28 shows results for the ANOVA analysis. The F-test is small, meaning that the P-value is large at 0.181. A P-Value > 0.05 implies the 'null question' should be accepted. This implies there is no significant difference in responses between those who attended training in the past year and those who did not.

In terms of research question one and in the context of the first test that was undertaken, coupled with previous research on this relationship This finding supports and confirms previous research (Zhang & Li, 2009; Nguyen *et al.*, 2011; Collier *et al.*, 2011; Lee *et al.*, 2010; Georgiadis & Pitelis, 2012; Sheehan, 2012), the answer to said research question is that a strong relationship exists between training and development and perceived performance.

### 6.2.2 2<sup>nd</sup> Analysis

#### Key variables (Questions analysed from questionnaire):

- Training helps me to function better in my role (Yes/No)
- Training enhances my performance levels

#### **Statistical model**

To see the effects of training and development on performance, respondents who went for training versus those who did not were identified. The next step was to then examine how each of the two groups answered the key question above. Since there are unequal observations per treatment level, the best model to have employed in this specific scenario was the single factor ANOVA model. A brief summary of the ANOVA model follows next (Kutner *et al.*, 2005).

A single factor model is an ideal choice when one is faced with the following situation:

- A continuous response variable: Training helps me to function better in my role (1 – 5 scale).
- A qualitative predictor variable: I have received and/or attended a training session in the past year (Yes/No). This is known as a two-level factor, since it has either a Yes or No response.

The model was notated as follows:

$$Y_{ij} = u_i + \varepsilon_{ij},$$

where,

$u_i$  is a theoretical mean of all observations at level  $i$ ,

$\varepsilon_{ij}$  are independent identically distributed as  $N(0, \sigma^2)$ . This implies  $Y_{ij}$  are also independent identically distributed with the distribution  $N(u_i, \sigma^2)$ .

### Parameters

Generally an ANOVA model has parameters,  $u_1, u_2, \dots, u_r, \sigma^2$ . From our factor variable defined above, we know it has only two levels being either 'Yes' and 'No'. Parameters of interest are therefore,  $u_N, u_Y, \sigma^2$ , where  $u_N$  and  $u_Y$  are a mean levels for 'No' and 'Yes', respectively.

### Parameters estimates

Parameters for mean levels 'Yes' and 'No' stated above are estimated by,

$$u_N = \bar{Y}_N = \frac{\sum_j Y_{N,j}}{n_N}, \text{ and}$$

$$u_Y = \bar{Y}_Y = \frac{\sum_j Y_{Y,j}}{n_Y}.$$

Respective variances for each of the 2 levels are estimated as:

$$s_N^2 = \frac{\sum_j^{n_N} (Y_{N,j} - \bar{Y}_N)^2}{n_N - 1}, \text{ and}$$

$$s_Y^2 = \frac{\sum_j^{n_Y} (Y_{Y,j} - \bar{Y}_Y)^2}{n_Y - 1}.$$

Before fitting the model, first the 'null-question', 'alternative question' and the test statistics are postulated:

$Q_0$ :  $U_n$  equals  $U_y$

$Q_a$ :  $U_n$  does not equal  $U_y$

The test statistic used for choosing between alternatives was:

$$F^* = \frac{MSTR}{MSE}$$

MSTR is the mean square treatment, and MSE is the mean square error. The null question is accepted for large values of F and rejected for small values. If the null question is accepted, it implies that the means of the two groups are not statistically different. This would therefore mean that training has no impact on helping people function better in their roles.

On the other hand, if the null question is rejected, it implies that means per treatment level are different and therefore training has an impact on people's performance in their roles. Output from the ANOVA model are presented in table 29.

**Table 29 Training helps me function better in my role (dependent variable)**

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	2.11343	2.11343	1.86	0.1765
Error	79	89.76311	1.13624		
Corrected Total	80	91.87654			

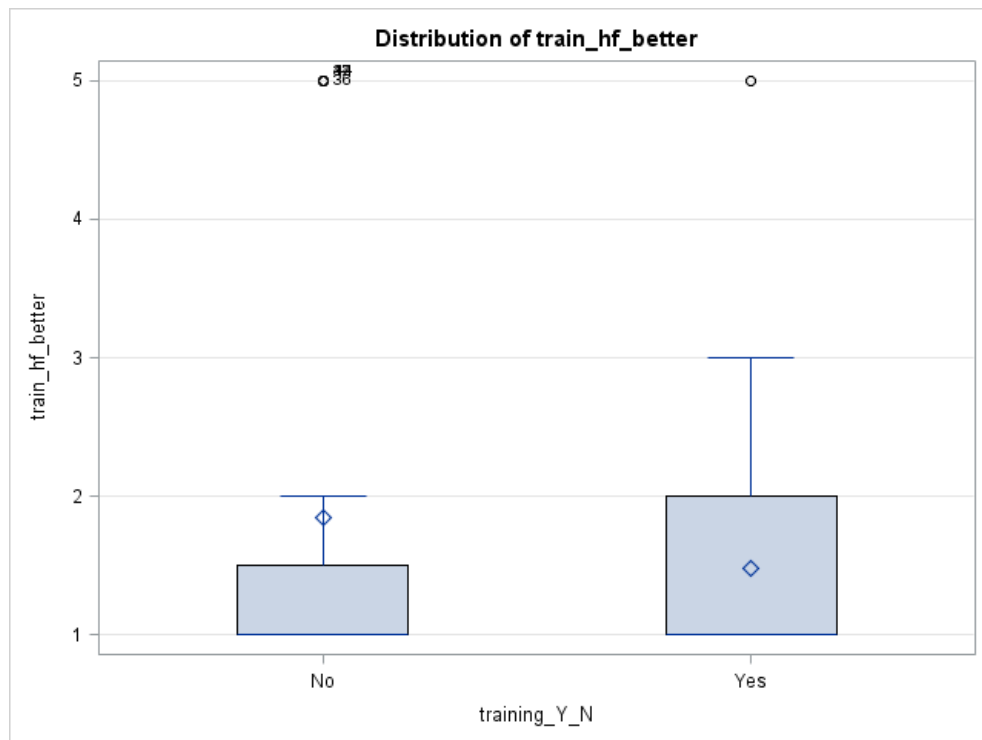
R-Square	Coeff Var	Root MSE	train_hf_better Mean
0.023	67.986	1.066	1.568

Level of training_Y_N	N	train_hf_better	
		Mean	Std Dev
No	20	1.85	1.63111
Yes	61	1.48	0.80843

There are two important statistics in Table 29. The first one is the F Value, which is the test statistic. This should be analysed together with the P-value (Pr >F). The rule is as follows, if P-Value is greater than 0.05, the null question is accepted at 95% confidence level. If P-Value is greater than 0.01, then the null question is accepted at 99% confidence level.

Since the P-Value is 0.176, which is greater than both 0.05 and 0.01, the null question is accepted at both 95% and 99% confidence level. This implies the scores for the variable 'Training helps me function better in my role' are not statistically different for the two treatment levels, 'Yes' and 'NO'. Stated another way, the two groups, more or less, equally values and agree that training, whether received or not, has and will help them function better in their roles. The bottom section of Table 29 shows the mean score of the noted question tested per treatment level (Received training - Yes/No). It is interesting to note that, employees who attended training tend to score lower than those who did not attend training. Figure 7 depicts this occurrence.

**Figure 7 Training helps me to function better in my role**



There are different explanations that could be presented for this occurrence. It could be that those who have not attended training overestimate its benefits in terms of better performance at work. Conversely also, those that attended training and development interventions could underestimate or understate the benefits of such intervention.

At this point we know the differences between these two groups are not statistically significant. The next step is to determine the overall trend, irrespective of attending training or not, what is the perceived value of training.

The main objective is to determine whether there is a relationship between training and perceived performance. This means unpacking responses to the variable 'Training helps me function better in my role', on its own. A one-way table for this variable is as follows:

**Table 30 Training helps me function better in my role (Analysed)**

Training helps me function better in my role						
	1 = Agree	2 =Tend to agree	3 = Neutral	4 = Tend to disagree	5= Disagree	Total
Frequency	56	14	6	0	5	81

Table 30 was converted to a single numerical measure that summarises all the responses to this question/variable.

$$\frac{1 \times 56 + 2 \times 14 + 3 \times 6 + 4 \times 0 + 5 \times 5}{56 + 14 + 6 + 0 + 5} = 1.57$$

The resultant score, 1.57, was compared to the response scale above to see the overall weighted response. The result lies between 1 = Agree and 2 = Tend to Agree.

Considering both the ANOVA analysis and the weighted average analysis, we can conclude that there is a relationship between training and development and perceived performance. The ANOVA analysis has also proven that whether or not the employee has attended training in the past year, does not significantly affect their view regarding training and the perceived performance benefits.

## 6.3 Research question 2

*Is there a relationship between employee engagement and perceived business performance when sampling the entire staff complement of an organisation?*

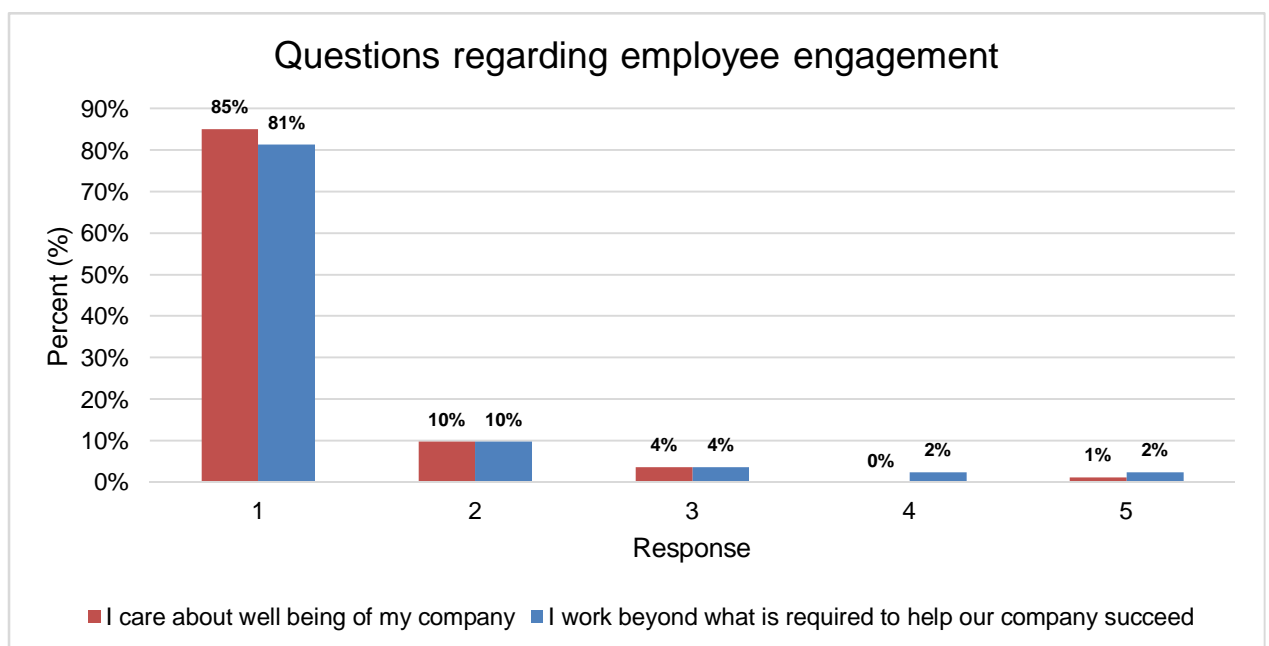
### 6.3.1 1<sup>st</sup> Analysis

Key variables (Questions analysed from questionnaire):

- I care about our company's well-being.
- I work beyond what is required to help our company succeed.

These key variables will help answer the research question by identifying certain trends from respondents' answers. Firstly, it was important to know whether a respondent was engaged or not. Secondly, the respondents' level of engagement needed to be linked to their perceived levels of performance. This approach helped establish whether or not being engaged influences perceived performance in the workplace.

**Figure 8 Employee engagement questions (Analysed)**



From figure 8, it appears respondents answered the two questions in a very similar fashion. This trend, however, does not warrant an association between the two variables. A statistical method is therefore needed to test for a relationship between the two variables.

The type of variables determine the types of analysis or statistical model that could be applied. The two variables under consideration are categorical, and thus a Chi-Square association test was used to test the relationship between these variables. The chi-square test provides a method for testing the association between the row and column variables in a two-way table. The 'null question',  $H_0$  assumes that there is no association between the variables, while the 'alternative question,  $H_a$  claims that some association does exist. The alternative question does not specify the type of association, however trends in the data can reveal the association type.

The questions are as follows:

$H_0$ : there is no association between caring about a wellbeing of one's company, and working beyond required to help the company succeed.

$H_a$ : there is an association between caring about a wellbeing of one's company, and working beyond required to help the company succeed.

Chi-square test statistic is calculated as:

$$\chi^2 = \sum \frac{(\text{observed} - \text{expected})^2}{\text{expected}},$$

where the square of the differences between the observed and expected values in each cell, divided by the expected value, are added across all of the cells in the table. The distribution of the statistic  $\chi^2$  is chi-square with  $(r-1)(c-1)$  degrees of freedom, where r represents the number of rows in the



two-way table and  $c$  represents the number of columns. The distribution is denoted  $(df)$ , where  $df$  is the number of degrees of freedom.

**Table 31 Observed values**

Observed Values						
I care about wellbeing of my company	Work beyond required to help my company succeed					Total
	1	2	3	4	5	
1	61	4	2	1	1	69
2	4	4	0	0	0	8
3	1	0	1	1	0	3
4	0	0	0	0	0	0
5	0	0	0	0	1	1
<b>Total</b>	<b>66</b>	<b>8</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>81</b>

Expected values for each cell were calculated by multiplying corresponding row totals with column totals and dividing by the grand total. By way of example, the 56.2 in the first cell of Table 32 was calculated as  $(69 \times 66) / 81$ .

**Table 32 Expected values**

Expected Values						
I care about wellbeing of my company	Work beyond required to help my company succeed					Total
	1	2	3	4	5	
1	56.2	6.8	2.6	1.7	1.7	69
2	6.5	0.8	0.3	0.2	0.2	8
3	2.4	0.3	0.1	0.1	0.1	3
4	0.0	0.0	0.0	0.0	0.0	0
5	0.8	0.1	0.0	0.0	0.0	1
<b>Total</b>	<b>66</b>	<b>8</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>81</b>

Table 6.8

From observed values in Table 31, and expected values in Table 32, excluding all zero cells yields,

$$\chi^2 = (61 - 56.2)^2 / 56.2 + (4 - 6.8)^2 / 6.8 + \dots + (1 - 0.02)^2 / 0.02 = 76.38.$$

Degrees of freedom are  $(5-1)(5-1) = 16$ . We are looking for  $P(\chi^2 \geq 76.38) = 0.0000000030$ . The test statistic is therefore significant at a 99.9% confidence interval. This implies the 'null question' is rejected in favour of the

'alternative question'. There is therefore strong evidence to suggest the two variables are associated.

From the results we can infer that people who care about the wellbeing of their company tend to work beyond required to ensure that their company succeed. This implies engaged employees will go the proverbial extra mile to see their company succeed and is in line with the research findings as noted in chapter 2 (Attridge, 2009; Davenport & Harding, 2010; Towers Watson, 2011)

### 6.3.2 2<sup>nd</sup> Analysis

Additional analysis using different variables altogether was employed to verify the findings in 6.3.1. The chosen variable(s) should indicate two things:

1. Employee's level of engagement,
2. Employee's performance

The below two variables, as extracted from the survey questionnaire, meet the two aforementioned criteria:

1. I would recommend our company as a good place to work.
2. I often take on extra responsibilities.

Table 33 presents a two-way frequencies of the two variables to help identify key relationships.

**Table 33 Observed values (2<sup>nd</sup> test)**

I would recommend our company as a good place to work	I often take on extra responsibilities					Total
	1= Agree	2= Tend to Agree	3 = Neut ral	4 = Tend to Disa gree	5 = Disa gree	
1	52	1	1	0	0	54
2	7	4	0	0	0	11
3	9	0	1	1	0	11
4	1	2	0	0	1	4
5	0	0	0	0	1	1
<b>Total</b>	<b>69</b>	<b>7</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>81</b>

Table 33 exhibits some positive trends between the two variables. The most obvious is the 52 respondents who strongly agreed they would recommend their company as a good place to work and also often take on extra responsibilities. From the 76 people who often take extra responsibilities, 64 of them (84.2%) would recommend their company as a good place to work.

A Chi-square test of association was then conducted to check if there is an association between the two variables. Expected values for each cell are calculated by multiplying corresponding row totals with column totals and dividing by the grand total. By way of example, the 46 in the first cell of table 34 was calculated as follows:  $(54 \times 69) / 81$ .

**Table 34 Expected values (2<sup>nd</sup> test)**

I would recommend our company as a good place to work	I often take on extra responsibilities					Total
	1	2	3	4	5	
1	46.00	4.67	1.33	0.67	1.33	54
2	9.37	0.95	0.27	0.14	0.27	11
3	9.37	0.95	0.27	0.14	0.27	11
4	3.41	0.35	0.10	0.05	0.10	4
5	0.85	0.09	0.02	0.01	0.02	1
<b>Total</b>	<b>69</b>	<b>7</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>81</b>

The questions are as follows:

$H_0$ : There is no association between recommending one's company as a good place to work, and often taking on extra responsibilities.

$H_a$ : There is association between recommending one's company as a good place to work, and often taking on extra responsibilities.

Chi-square test statistic is calculated as:

$$\chi^2 = \sum \frac{(\text{observed} - \text{expected})^2}{\text{expected}},$$

$$\chi^2 = (52 - 46)^2 / 46 + (1 - 4.67)^2 / 4.67 + \dots + (1 - 0.02)^2 / 0.02 = 82.99$$

Degrees of freedom are  $(5-1)(5-1) = 16$ . We are looking for  $P(\chi^2 \geq 82.99) = 0.0000000020$ . Therefore the test statistic was significant at a 99.9% confidence interval. This implies the 'null question' is rejected in favour of the 'alternative question', there is strong evidence to support the association of the two variables.

We therefore conclude by way of the results that an association between those who recommend their companies as a good place to work and those who often take extra responsibilities exists. Furthermore, we have proven that this association is a positive association by showing that 84% of those who positively recommend their work place, tend to take on more responsibilities.

This finding therefore supports the work of Whittington and Galpin (2010) and Shuck *et al.*, (2011), amongst others. The answer to research question 2 is therefore also yes. The results also allows us to draw inferences that

there exists well-established employee-to-employee communication and feedback loops (Forck, 2014) within the company, working conditions are reasonably adequate at the company (Attridge, 2009) and that the necessary resources are provided to the employees (Attridge, 2009; Cardus, 2013; Forck, 2014; Gerst, 2013; Whittington & Galpin, 2010; Shuck *et al.*, 2011; Towers Watson, 2011; Johnson, 2011).

## 6.4 Research question 3

*Is there a relationship between training and development and employee engagement when sampling the entire staff complement of an organisation?*

### 6.4.1 1<sup>st</sup> Analysis

Key variables (Questions analysed from questionnaire):

- Training makes me understand how meaningful my role is to the company.
- I have received and/or attended a training session in the past year.

The two variables presented above were selected to help examine the relationship between employees' engagement and training. The question is whether sending employees on training improves their level of engagement within the company. The first variable measures the employee's level of engagement. The second one identifies whether an employee has been on training or not in the past year.

Table 35 presents graphical results of responses based on the two variables under consideration.

**Table 35 Training and engagement analysis**

Training and engagement analysis						
Attended training in the past year	Training makes me understand how meaningful my role is to the company					
	1	2	3	4	5	Total
<b>No</b>	17	1	2	0	0	20
<b>Yes</b>	45	7	8	0	1	61
<b>Total</b>	<b>62</b>	<b>8</b>	<b>10</b>	<b>0</b>	<b>1</b>	<b>81</b>

Approximately 86.4% (70) respondents ‘agree’ or ‘tend to agree’ that training helps them understand how meaningful their roles are to the company, irrespective of whether they have been on training or not. Approximately 12.4% (10) of respondents are neutral, and only 1.2% disagree that training helps make their roles meaningful in the company.

The next step is to look at responses by grouping them into two, those who attended training in the past year, and those who did not. Of the 86.4% of those who agree training helps them understand the meaningfulness of their roles, 64.2% of them attended training in the past year, while 22.2% did not. Of the 12.4% neutral respondents, 9.9% of them went for training, and 2.5% did not. The remaining 1.2% respondents who disagree that training helps employees understand the meaning of their roles, come from a group that went for training in the past year.

A different way of analysing whether training makes employees engaged is to construct a one-way table looking at only one variable, “Training makes me understand how meaningful my role is to the company”. The resultant table would look as follows:

**Table 36 Training makes me understand how meaningful my role is to the company**

<b>Training makes me understand how meaningful my role is to the company</b>					
<b>1 = Agree</b>	<b>2 =Tend to agree</b>	<b>3 = Neutral</b>	<b>4 = Tend to disagree</b>	<b>5= Disagree</b>	<b>Total</b>
62	8	10	0	1	81

Table 36 can be converted into a numerical indicator that can summarize responses from this question into 1 score.

$$\frac{1 \times 62 + 2 \times 8 + 3 \times 10 + 4 \times 0 + 5 \times 1}{62 + 8 + 10 + 0 + 1} = 1.395$$

This shows on a scale of 1 – 5, the overall weighted score of respondents is 1.395, which is somewhere between ‘Agree’ and ‘Tend to agree’ on our response table. The score leans more towards an ‘Agree’ response when rounded off. The statistics from the two analyses suggest that respondents do believe that training makes their work more meaningful, irrespective of whether they have attended training in the past year or not. Based on the variable “Training makes me understand how meaningful my role is to the company”, we can infer that training makes employees roles meaningful at work and therefore leads to higher levels of engagement and suggest a relationship between training and development and employee engagement.

A second test was performed to test if the same conclusion can be reached. Another variable regarding employee engagement and training and development was selected and analysed.

## 6.4.2 2<sup>nd</sup> Analysis

Key variables (Questions analysed from questionnaire):

- When I receive training or are nominated for training, I feel valued.
- I have received and/or attended a training session in the past year.

The first variable revealed respondents' level of engagement as a result of attending training. The first step was then to analysis and summarise responses from this variable.

**Table 37 Training and engagement analysis (2<sup>nd</sup> test)**

Training and engagement analysis						
	When I receive training or are nominated for training, I feel valued					Total
	1 = Agree	2 = Tend to agree	3 = Neutral	4 = Tend to disagree	5 = Disagree	
<b>Frequency</b>	63	6	11	0	1	81
<b>Percent</b>	77.8%	7.4%	13.6%	0.0%	1.2%	100%

From Table 37, approximately 85.2% of respondents agree and tend to agree that, when nominated for training, they feel valued. The remainder of responses is made up of those who are neutral (13.6%), leaving those who disagree and tend to disagree at only 1.2%.

Using numerical values of responses 1 – 5, a weighted response score was then calculated to arrive at an overall average response. The weighted response score was calculated as follows:

$$\frac{1 \times 63 + 2 \times 6 + 3 \times 11 + 4 \times 0 + 5 \times 1}{63 + 6 + 11 + 0 + 1} = 1.39$$

The final weighted response score is very close to the strongest positive response, "Agree", and this implies there is significant evidence to infer that being nominated for training makes employee feel valued and further supports the findings in 6.4.1.



The next stage of the analysis was to examine if this view varies between those who attended training in the past year and those who did not. In other words, does the fact that an employee has attended training or not in the past year affect their view on whether being nominated for training makes one feel valued, or not? To answer this question, the association between the two key variables was examined using Chi-square test of association. Table 38 presents a two-way frequency for the two variables in question.

**Table 38 Observed values (2<sup>nd</sup> test)**

<b>Training and engagement analysis</b>						
Attended training in the past year	When I receive training or are nominated for training, I feel valued					Total
	1 = Agree	2 = Tend to agree	3 = Neutral	4 = Tend to disagree	5 = Disagree	
<b>No</b>	17	1	2	0	0	20
<b>Yes</b>	46	5	9	0	1	61
<b>Total</b>	<b>63</b>	<b>6</b>	<b>11</b>	<b>0</b>	<b>1</b>	<b>81</b>

When observing responses between those who attended training and those who did not in Table 38, there are few interesting facts that stand out. Approximately 90% of those who did not attend training in the past year agree and tend to agree that if they receive training or were nominated for training, they would feel valued. This compared to 84% in the corresponding groups of those who did attend training in the past year. Moreover, 10% of those who did not attend training in the past year are neutral with regard to this question, compared to 15% of those who went for training.

To establish if the difference between these 2 groups is statistically significant, a Chi-square test is carried out. Table 39 shows expected values for each cell as derived using the formula: Row Total x Column Total / Grand Total.

**Table 39 Expected values (2<sup>nd</sup> test)**

Training and engagement analysis						
Attended training in the past year	When I receive training or are nominated for training, I feel valued					Total
	1 = Agree	2 = Tend to agree	3 = Neutral	4 = Tend to disagree	5 = Disagree	
<b>No</b>	15.6	1.5	2.7	0.0	0.2	<b>20</b>
<b>Yes</b>	47.4	4.5	8.3	0.0	0.8	<b>61</b>
<b>Total</b>	<b>63</b>	<b>6</b>	<b>11</b>	<b>0</b>	<b>1</b>	<b>81</b>

The questions are as follows:

$H_0$ : There is no association between feeling valued when an employee received or has been nominated for training, and having attended training before.

$H_a$ : There is an association between feeling valued when receiving or been nominated for training, and attending training.

Chi-square test statistic is calculated as:

$$\chi^2 = \sum \frac{(\text{observed} - \text{expected})^2}{\text{expected}},$$

$$\chi^2 = (17 - 15.6)^2 / 15.6 + (1 - 1.5)^2 / 1.5 + \dots + (1 - 0.8)^2 / 0.8 = 0.96$$

Degrees of freedom are  $(5-1) \times 1 = 4$ . We are looking for  $P(\chi^2 \geq 0.96) = 0.15$ . Therefore the test statistic is not significant at 99.9% confidence interval. This implies the 'null question' is accepted, which implies attending training has no association with an employee's view on whether or not they feel valued when nominated for training.

## 7. Chapter 7: Conclusion

### 7.1 Introduction

This research set out to answer three research questions and sought to do so within a South African context and by sampling the entire staff complement of an organisation. Training and development forms a crucial part of most organisations' HR departments and most organisations support this HRM function, both in principle and economically in terms of budgets. Employee engagement, by virtue of the origin of most of the peer reviewed journals on the topic, is more of an American and European, to a lesser extent, construct. The linkages between employee engagement and training and development is also a sparsely researched topic.

The research questions were as follows and their findings will briefly be addressed:

1. Is there a relationship between training and development and perceived business performance when sampling the entire staff complement of an organisation?
2. Is there a relationship between employee engagement and perceived business performance when sampling the entire staff complement of an organisation?
3. Is there a relationship between training and development and employee engagement when sampling the entire staff complement of an organisation?

## 7.2 Research Question 1

*Is there a relationship between training and development and perceived business performance when sampling the entire staff complement of an organisation?*

Whether or not employees received training and development does not seem to matter regarding the views of employees around the benefits to their levels of perceived performance. Respondents clearly indicated their belief that training and development will enhance their performance. While not all questions in the questionnaire was subject to a statistical analysis, no less than 85% of respondents either 'agree' or 'tend to agree', provide positive statements, to all the questions posed regarding training and development.

The aforementioned is meaningful and significant and questions posed had statements such as 'training helps me function better in my role', 'training enhances my performance levels' and 'if I received more relevant training, I could increase my performance'. Respondents were therefore overwhelmingly of the view that a strong relationship exists between training and development and performance. Respondents that did not receive training are further, and more so, interested in receiving training and development as they believe, more than their trained and developed counterparts, as to the perceived performance benefits of training and development. This belief is however not statically significant relative to respondents' trained counterparts.

The results of this research question and its managerial implications are fairly apparent and straightforward. Organisations, through the leadership of their management cadre, should focus on getting employees both the fundamental training they would require to effectively fulfil their roles and use training as a means to enhance the confidence of their employee base given its strong links to both performance and perceived performance.

The strong link between training and development and performance in general links well into Herzberg's two-factor or motivation-hygiene theory (Robbins & Judge, 2013). While organisations addresses largely hygiene factors such as remuneration, better management and good working conditions, amongst other important hygiene factors, it is those 'motivator needs' that sets organisations apart in terms of staff morale, higher rates of retention and superior performance (Cummings & Worley, 2009). Growth and development opportunities, essentially training and development, is noted as key motivators that leads to higher levels of job satisfaction (Grobler, Warnich, Carrell, Elbert, & Hatfield, 2006) and could likely be the reason, other than socially desirable responses, for the largely positive scores submitted by respondents.

Future research should focus on more industries and should preferably be conducted by industry bodies with the hope that this would further eliminate any form socially desirable responses.

### **7.3 Research question 2**

*Is there a relationship between employee engagement and perceived business performance when sampling the entire staff complement of an organisation?*

Given the association between caring about the wellbeing of one's organisation and working beyond what is required to help the organisation succeed, engaged employees are indeed the internal catalyst and leveraging point for increased business performance. The 2 tests conducted concludes that employee engagement and perceived performance are indeed closely linked.

Unlike training and development, employee engagement is a less of a construct being explored, measured and exploited in South African businesses. The findings of this research would strongly suggest that organisations focus more on employee engagement if business performance is their goal. While the findings are clear and links employee engagement to perceived performance, the subject organisation that was researched performed extremely well on performance measures that did not form part of this research. One can argue that these performance measures means very little given that their relationship was not tested against either employee engagement or training and development but given the tested results thus far, the organisation's performance results over the past 2 financial years makes for interesting reading.

From a share price performance perspective, the company outperformed all JSE listed company for 2 consecutive years. At the end of 2012, the company's share price increased by 581% and it also won an award for the best performing share of 2013. Other performance metrics such as return on assets, EBITDA growth, improving cost-to-income ratios, net profit after tax increases, etc. also underpins these levels of performance.

HR practitioners and managers in general would be well served in not ignoring the levels of employee engagement in their organisations. While economic benefits to companies may be the main output focussed on in terms of employee engagement, there are other ancillary benefits of engaged employees for stakeholders to consider. Lower rates of staff turnover, higher levels of productivity, improved industrial relations with employees and amongst employees, amongst others, are just some of the reasons why stakeholder groups should pay very close attention to employee engagement levels

Given therefore the results of this research together with the results achieved by the subject company, further and broader research would enhance our understanding of employee engage and its links to various performance metrics, not just perceived performance as defined.

## 7.4 Research question 3

*Is there a relationship between training and development and employee engagement when sampling the entire staff complement of an organisation?*

The logic behind wanting to research this question was the anticipation that training and development and employee engagement would have a positive effect on perceived performance. This has since been proven in both instances. Looking to therefore demonstrate a link between training and development and employee engagement would prove highly efficient and would obviously have a compounding effect on perceived performance.

Indications from respondents were that there might well be a relationship between training and development and certain elements of employee engage, meaning, employees' perceived feelings of meaningfulness in their roles in the context of training, feeling valued when nominated for training, etc. comes through strongly in respondent feedback. This is supported when reviewing the weighted average scores as noted in chapter 6.

While respondents note high scores around feeling valued when nominated for training and this boding well for high levels of employee engagement, the 2<sup>nd</sup> statistical analysis conducted suggests no association between being nominated or having received training and feeling valued. The 1<sup>st</sup> two research questions therefore have more definitive results while this research question has a level of ambivalence to it. It should therefore be of interest to both academics, and subsequently senior managers, to further research this research question so as to find meaningful insights as to whether a link between training and development and employee engagement truly exists.

## 7.5 Research results model

Figure 9 Results model

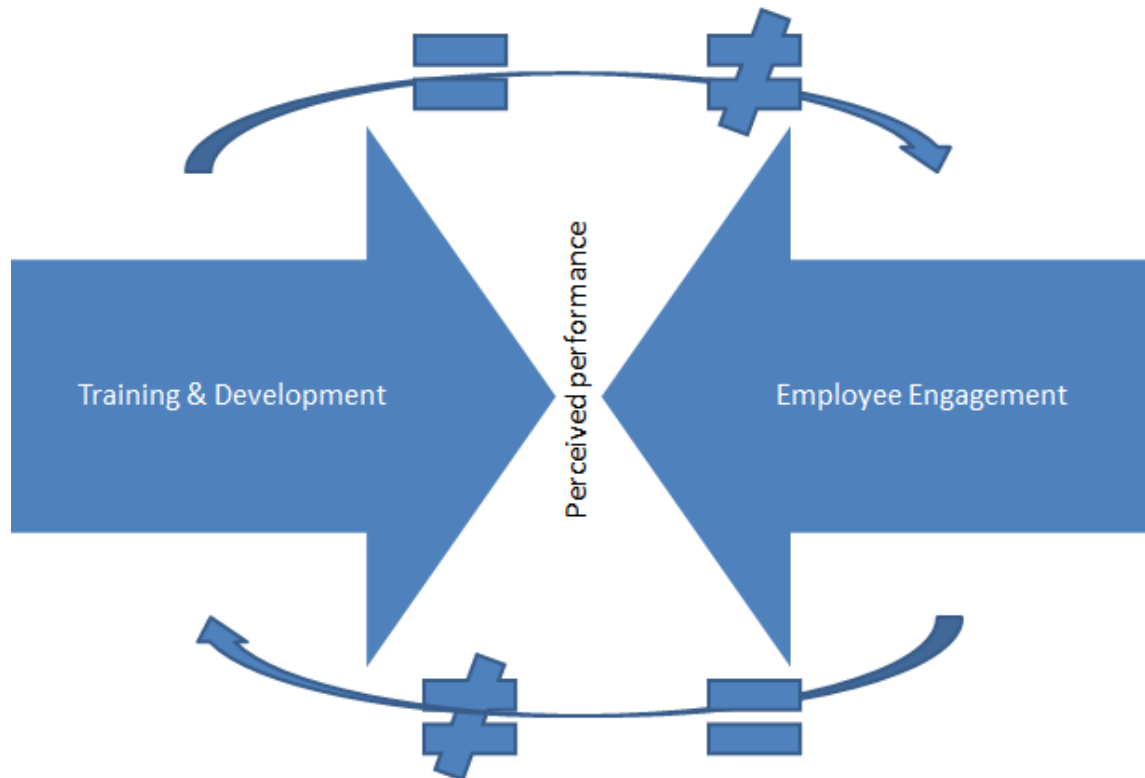


Figure 9 represents both the research results as well as aims to graphically demonstrate the future research required, especially as relates to the 3<sup>rd</sup> research question.



## 7.6 Summary of research

Table 40 Summary of research

Question	Research Question	Statistical Test Used	Conclusion
1.1.	There is a relationship between training and development and perceived business performance when sampling the entire staff complement of a company.	Weighted Average Response. Training helps me to function better in my role (1 – 5 scale).	Supports and positively answers the question that training and development does help employees perform better in their roles.
1.2.		Single Factor ANOVA model. A Continuous response variable: Training helps me to function better in my role (1 – 5 scale). A qualitative predictor variable: I have received and/or attended a training session in the past year (Yes/No).	Whether employees attended training or not in the past year does not influence their view on the benefit training has on employees' performance.
2.1.	There is a relationship between employee engagement and perceived business performance when sampling the entire staff complement of a company.	Chi-square test using the following categorical variables: I care about our company's well-being (1-5 scale). I work beyond what is required to help our company succeed (1-5 scale).	Employees who care about the wellbeing of their company tend to work beyond required to ensure that their company succeed. This implies engaged employees will go an extra mile to see their company succeed.
2.2.		Chi-square test using the following categorical variables: I would recommend our company as a good place to work (1-5 scale). I often take on extra responsibilities (1-5 scale).	There is an association between those who recommend their companies as a good place to work (engaged) and those who often take extra responsibilities.
3.1.	There is a relationship between training and development and employee engagement when sampling the entire staff complement of a company.	Weighted Average Response, with a variable: Training makes me understand how meaningful my role is to the company (1-5 scale).	Employees do believe that training makes their work more meaningful, irrespective of whether they have attended training in the past year or not.
3.2.		Weighted Average Response, with a variable: When I receive training or are nominated for training, I feel valued.  Chi-square test, with variables: I attended/received training in the past year (Yes/No). When I receive training or are nominated for training, I feel valued (1-5 scale).	Historical attendance of training has no association with an employee's view on whether or not they feel valued when nominated for training.

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## 4. Annexure 1 - Questionnaire

Dear Participant

### Research Questionnaire

We are conducting a study into Training and Development and Employee Engagement and its effect on perceived performance and would like to request your participation in our study. Your participation in this research will lead to academic outputs that will advance knowledge and understanding of the effects of training and development and employee engagement on perceived performance and the completing this questionnaire should not take longer than 15 minutes of your time.

Your participation in this survey is entirely voluntary and all information will be treated as confidential. We do not need identifying data. All data will be aggregated through statistical processes and no individual data will be reported.

The research will be conducted under the auspices of the Gordon Institute of Business Science of the University of Pretoria and will comply with the University of Pretoria's ethical requirements.

You may contact either Prof Karl Hofmeyr at [hofmeyrk@gibs.co.za](mailto:hofmeyrk@gibs.co.za) or Mr Fabian Manuel at [sirfdm@gmail.com](mailto:sirfdm@gmail.com) for further discussion or queries.

Yours Sincerely

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**Karl Hofmeyr**  
**Supervisor**

Gordon Institute of Business Science  
  
University of Pretoria

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**Fabian Manuel**  
**MBA Candidate**

Gordon Institute of  
Business Science  
University of Pretoria

## **Section 1: Biographical details**

1. **Today's date:** Day: \_\_\_\_\_ Month: \_\_\_\_\_ Year: \_\_\_\_\_  
\_\_\_\_\_

2. **How old are you:** \_\_\_\_\_

3. **Gender:** Male: \_\_\_\_\_ Female: \_\_\_\_\_

4. **In the South African context, I am classified as:**

Black: \_\_\_\_\_ White: \_\_\_\_\_ Indian: \_\_\_\_\_ Coloured: \_\_\_\_\_

Chinese: \_\_\_\_\_

Other (please specify in not one of the preceding): \_\_\_\_\_

5. **I have been working at this company since:**

Day: \_\_\_\_\_ Month: \_\_\_\_\_ Year: \_\_\_\_\_

6. **Please indicate your highest qualification:**

High School / Certificate			1
Degree / Diploma			2
Honours Degree / Post Graduate Diploma			3
Master's Degree			4
Doctorate			5
Other – please specify			

**7. At our company, I fulfil the role of a** (*mark your 1 selection with an 'X'. If your selection is 'Other', please write down your job title*)

Branch Consultant: \_\_\_\_\_ Branch Manager: \_\_\_\_\_ Area Manager:

\_\_\_\_\_

Regional Manager: \_\_\_\_\_ General Manager: \_\_\_\_\_ Member of EXCO

\_\_\_\_\_ Regional Office staff member: Head Office staff member: \_\_\_\_\_

Other (*Please specify*): \_\_\_\_\_



## **Section 2**

- 1. I have received and/or attended a training session in the past year** (*mark your selection with an 'X'.*)

Yes: \_\_\_\_\_ No: \_\_\_\_\_

If Yes, please answers questions 2 to 6.

If No, please answer questions 6 to 8

- 2. The total amount of training, formal or informal, I received was** (*kindly thoroughly reflect and note the total amount of training days or/and hours*)

Days: \_\_\_\_\_ Hours: \_\_\_\_\_

- 3. I consider the training I received as adequate** (*circle your 1 selected option*)

Agree; Tend to agree; Neither Agree nor Disagree; Tend to disagree; Disagree

- 4. Training helps me to function better in my role** (*circle your 1 selected option*)

Agree; Tend to agree; Neither Agree nor Disagree; Tend to disagree; Disagree

- 5. Training enhances my performance levels** (*circle your 1 selected option*)

Agree; Tend to agree; Neither Agree nor Disagree; Tend to disagree; Disagree

- 6. If I received more relevant training, I could increase my performance** (*circle your 1 selected option*)

Agree; Tend to agree; Neither Agree nor Disagree; Tend to disagree; Disagree

- 7. Training would help me to function better in my role** (*circle your 1 selected option*)

Agree; Tend to agree; Neither Agree nor Disagree; Tend to disagree; Disagree

**8. Training would enhance my performance levels** (*circle your 1 selected option*)

Agree;      Tend to agree;    Neither Agree nor Disagree;    Tend to disagree;    Disagree

### **Section 3**

- 1. I believe strongly in the strategic direction being pursued by our Company** (*circle your 1 selected option*)

Agree; Tend to agree; Neither Agree nor Disagree; Tend to disagree; Disagree

- 2. I fully support the values for which our Company stands** (*circle your 1 selected option*)

Agree; Tend to agree; Neither Agree nor Disagree; Tend to disagree; Disagree

- 3. I am proud to be associated with our company** (*circle your 1 selected option*)

Agree; Tend to agree; Neither Agree nor Disagree; Tend to disagree; Disagree

- 4. I would recommend our company as a good place to work** (*circle your 1 selected option*)

Agree; Tend to agree; Neither Agree nor Disagree; Tend to disagree; Disagree

- 5. Looking back over the past year or so, our company has become a better place to work** (*circle your 1 selected option*)

Agree; Tend to agree; Neither Agree nor Disagree; Tend to disagree; Disagree

- 6. How satisfied am I with our company as a place to work?** (*circle your 1 selected option*)

Satisfied; Partly Satisfied; Neither Satisfied nor Dissatisfied; Partly Dissatisfied; Dissatisfied

- 7. I work beyond what is required to help our company succeed** (*circle your 1 selected option*)

Agree; Tend to agree; Neither Agree nor Disagree; Tend to disagree; Disagree

**8. I often take on extra responsibilities** (*circle your 1 selected option*)

Agree; Tend to agree; Neither Agree nor Disagree; Tend to disagree; Disagree

**9. At the present time, I am seriously considering leaving the company**

(*circle your 1 selected option*)

Agree; Tend to agree; Neither Agree nor Disagree; Tend to disagree; Disagree

**10. I care about our company's well-being** (*circle your 1 selected option*)

Agree; Tend to agree; Neither Agree nor Disagree; Tend to disagree; Disagree

## **Section 4**

- 1. Training helps me to better understand the strategic direction of the company** (*circle your 1 selected option*)

Agree;      Tend to agree;    Neither Agree nor Disagree;    Tend to disagree;    Disagree

- 2. The stated values of the company is what my direct manager displays on a daily basis** (*circle your 1 selected option*)

Agree;      Tend to agree;    Neither Agree nor Disagree;    Tend to disagree;    Disagree

- 3. Out of the 5 stated values of the company, my manager consistently displays** (*mark your 1 selection with an 'X'*)

One:              Two:              Three:              Four:              All:  
None:

- 4. When I receive training or are nominated for training, I feel valued** (*circle your 1 selected option*)

Agree;      Tend to agree;    Neither Agree nor Disagree;    Tend to disagree;    Disagree

- 5. Training makes me understand how meaningful my role is to the company** (*circle your 1 selected option*)

Agree;      Tend to agree;    Neither Agree nor Disagree;    Tend to disagree;    Disagree